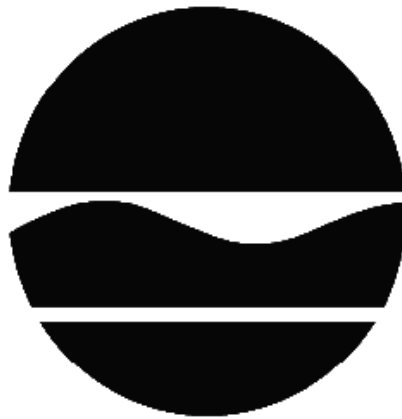


# RECORD OF DECISION

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Buoy 212 Dredge Spoil Disposal Area  
State Superfund Project  
Fort Edward, Washington County  
Site No. 558018  
March 2011



Prepared by  
Division of Environmental Remediation  
New York State Department of Environmental Conservation



# **DECLARATION STATEMENT - RECORD OF DECISION**

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Buoy 212 Dredge Spoil Disposal Area  
State Superfund Project  
Fort Edward, Washington County  
Site No. 558018  
March 2011

## **Statement of Purpose and Basis**

This document presents the remedy for the Buoy 212 Dredge Spoil Disposal Area site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375, 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 (the Department) for the Buoy 212 Dredge Spoil Disposal Area site and the public's input to the proposed remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

## **Description of Selected Remedy**

The elements of the selected remedy are as follows:

1. Maintain the isolation cap/cover, which has been constructed, over the former dredge spoil disposal structure at the Buoy 212 site by the New York State Department of Transportation in 1991 to satisfy Toxic Substances Control Act requirements imposed by the United States Environmental Protection Agency.
2. Imposition of an institutional control in the form of an environmental easement for the controlled property that: (a) allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), though land use is subject to local zoning laws; (b) requires compliance with the Department approved Site Management Plan; (c) restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and (d) requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3).
3. A Site Management Plan is required which includes the following:
  - (a) an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary

to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The environmental easement discussed in Paragraph 2 above.

Engineering Controls: The existing isolation cap/cover discussed in Paragraph 1 above.

This plan includes, but may not be limited to: (i) Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination; (ii) descriptions of the provisions of the environmental easement including any land use and/or groundwater use restrictions; (iii) provisions for the management and inspection of the identified engineering controls; (iv) maintaining site access controls and Department notification; and (v) the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls; and

(b) a Monitoring Plan to include, but not be limited to: (i) monitoring of groundwater to assess the performance and effectiveness of the remedy; and (ii) a schedule of monitoring and frequency of submittals to the Department.

#### **New York State Department of Health Acceptance**

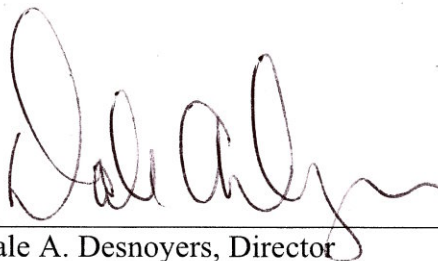
The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

#### **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.

**MAR 31 2011**

\_\_\_\_\_  
Date



\_\_\_\_\_  
Dale A. Desnoyers, Director  
Division of Environmental Remediation

# **RECORD OF DECISION**

Buoy 212 Dredge Spoil Disposal Area  
Fort Edward, Washington County  
Site No. 558018  
March 2011

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## **SECTION 1: SUMMARY AND PURPOSE**

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of hazardous wastes at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of hazardous wastes at this site, as more fully described in this document, has contaminated various environmental media. The remedy is intended to attain the remedial action objectives identified for this site for the protection of public health and the environment. This Record of Decision (ROD) identifies the selected remedy, summarizes the other alternatives considered, and discusses the reasons for selecting the remedy.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

## **SECTION 2: SITE DESCRIPTION AND HISTORY**

### **Location:**

The Buoy 212 Dredge Spoil Disposal Area site is located along the eastern shore of the Hudson River in the Town of Fort Edward (Washington County), about 1.3 miles down-river (south) of Champlain Canal Lock 7 and near the floating red nun Buoy 212 that marks the eastern margin of the navigation channel of the Champlain Canal within the Hudson River.

### **Site Features:**

The site consists of a closed and covered basin and earthen containment berm complex built by the Waterways Maintenance Division of the New York State Department of Transportation (NYSDOT) to dewater and hold sediment removed from the Champlain Canal/Hudson River navigation channel south of Canal Lock 7. In its present closed and covered state, the dredge

spoil disposal structure is about 200 feet wide and extends about 850 feet along the shore of the Hudson River with a foot-print covering nearly 4.1 acres on a parcel owned by New York State. The adjoining property to the north is privately owned and occupied by a single dwelling and a few out-buildings. The residence on this property is connected to a public water supply. The adjoining property to the east is occupied by a single dwelling and several out-buildings and small service structures. There is a private well on this property that draws water from the overburden aquifer. The well is approximately 300 feet away from the eastern margin of the site. The adjoining property to the south is an open field and is being used as a temporary support area and access point to the Hudson River for the Hudson River Dredging Project.

The Hudson River and the Champlain Canal adjacent to Buoy 212 are part of the United States Environmental Protection Agency's (USEPA's) Hudson River PCBs Superfund Site as listed on the National Priority List (NPL) and listed in the Department's 'Registry of Inactive Hazardous Waste Disposal Sites in New York State' under site number 546031 with a Class 2 designation (a site where hazardous waste disposal has been confirmed and presents a significant threat to public health and/or the environment - action is required). PCBs, from two upstream General Electric plant site sources, are the main contaminants of concern for this NPL site. These wastes, sporadically entrained within the sediment of the Hudson River and subsequently removed with some of the sediment from the Champlain Canal/Hudson River navigation channel as dredge spoil material in the past, have contaminated the soils at the Buoy 212 site.

#### Current Zoning/Use:

The parcel is State-owned and undeveloped and best fits into a marine commercial classification. Personnel from the NYSDOT inspect and sample the groundwater monitoring wells and maintain the site under the TSCA program.

#### Historical Use:

A single unlined settling basin and baffle system was constructed at this site by the Waterways Maintenance Division of the NYSDOT and was used to dewater and hold dredge spoil material removed from the Champlain Canal/Hudson River navigation channel south of Champlain Canal Lock 7 - with emphasis on the navigation channel in the Hudson River between the Buoy 212 and Buoy 216 channel markers - in conjunction with routine and emergency maintenance dredging operations of the Canal System. The unlined settling basin system at this site was initially constructed by excavating the native soils on the property slightly and grading the displaced soils outward and upward to form the various containment berms. During subsequent maintenance operations, it is likely that some of the older dredge spoil materials were re-graded in order to deepen the settling basin and accommodate the disposal of additional dredge spoil materials. Available NYSDOT records report that the Buoy 212 dredge spoil disposal area was used between 1970 and 1979. The records covering this period report the disposal of an unspecified volume of the 283,021 cubic yards of dredge spoil material processed in 1970 for the given stretch of River and the disposal of 28,725 cubic yards in 1976 from the navigation channel between the Buoy 212 and Buoy 216 channel markers. Records also indicate that dredge spoils were also placed at Buoy 212 in 1979, but do not provide a specific volume out of the 66,930 cubic yards processed that year for the given stretch of River. The Buoy 212 site was last used in 1979.

## Remedial History:

During an assessment of areas with possible PCB contamination in the Upper Hudson River Valley completed in 1978, it was found that the dredge spoil materials/soils at this site were contaminated with PCBs at levels up to 264 ppm. As mentioned previously, the Buoy 212 site was last used in 1979 at which time it was covered with between six and 24-inches of sand and seeded. Monitoring wells were also installed and a monitoring program was established. These actions were done in compliance with Toxic Substances Control Act (TSCA) requirements imposed by the USEPA when they issued an approval for the temporary storage/disposal of PCB laden material at this site in September of 1979. Monitoring confirmed PCB contamination in the local groundwater and shallow soils at the site and a soil sampling program initiated in 1989 confirmed PCB contamination at the site within the limits of the closed dredge spoil disposal structure.

In May of 1989, the Department listed the site as a Class 2 site in the 'Registry of Inactive Hazardous Waste Disposal Sites in New York State'. A Class 2 site is a site where hazardous waste presents a significant threat to the public health or the environment and action is required.

In 1991, a TSCA-approved clay cover/cap was added over the existing 'standard turf' cover. The new cover was constructed by the NYSDOT and the earlier monitoring wells were replaced. The new cover added a six-inch to five-foot thick layer of clay over the entire closed structure. The combination of the two cover layers put the top surface of the potentially contaminated dredge spoil materials at depths ranging between about one-foot and nearly five-feet below the ground surface. Following the installation of the TSCA-approved cap, subsequent monitoring demonstrated that PCB levels in the local groundwater diminished such that PCBs were no longer detected in the groundwater. The site was removed from the New York State Registry of Inactive Hazardous Waste Disposal Sites in March 1998 because it was determined that TSCA facilities do not meet the definition of 'inactive' sites. Personnel from the NYSDOT inspect and sample the groundwater monitoring wells and maintain the site under the TSCA program.

## Site Geology and Hydrogeology:

The geologic setting for the Buoy 212 site has a varied mixture of silts, sands, gravel, and clay and that were placed over bedrock by natural processes and a varied mixture of sand, silt, shale fragments, and debris that were placed over the earlier lacustrine and alluvial deposits by unnatural processes a relatively short time ago.

The overburden materials in the natural setting are located in most areas outside of the basin and berm system at the site. The overall thickness of these native soils at Buoy 212 is not known, but earlier work by others report similar undisturbed silts, sands, gravel, and clay to a depth about 40 feet lower than the bottom of the Buoy 212 dredge spoil disposal structure.

The overburden materials in the unnatural setting are best described as mechanically reworked native soil mixed with dredge spoil materials in the closed and covered dredge spoil disposal structure. The dredge spoils are typically dark gray to black, fine to medium sands with varying amounts of silt, black shale fragments, pebble gravel, brick fragments, coal fragments, fused slag, glass shards, and wood debris. Based on observations made during borehole drilling and

sampling, materials that could be characterized as dredge spoils varied in thickness from a few inches to nearly 13 feet.

Groundwater flow at this site typically moves away from the topographic rise on the eastern side and toward the Hudson River in a general west-southwest direction. Based on groundwater elevation measurements and other observations made during the Remedial Investigation, lines of equal groundwater elevation are nearly parallel with the shore of the River and groundwater appears to flow through the native overburden soils just below the dredge spoil materials placed at the site most of the year.

A site location map is attached as Figure 1.

### **SECTION 3: LAND USE AND PHYSICAL SETTING**

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in Part 375-1.8(g) is/are being evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

### **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.

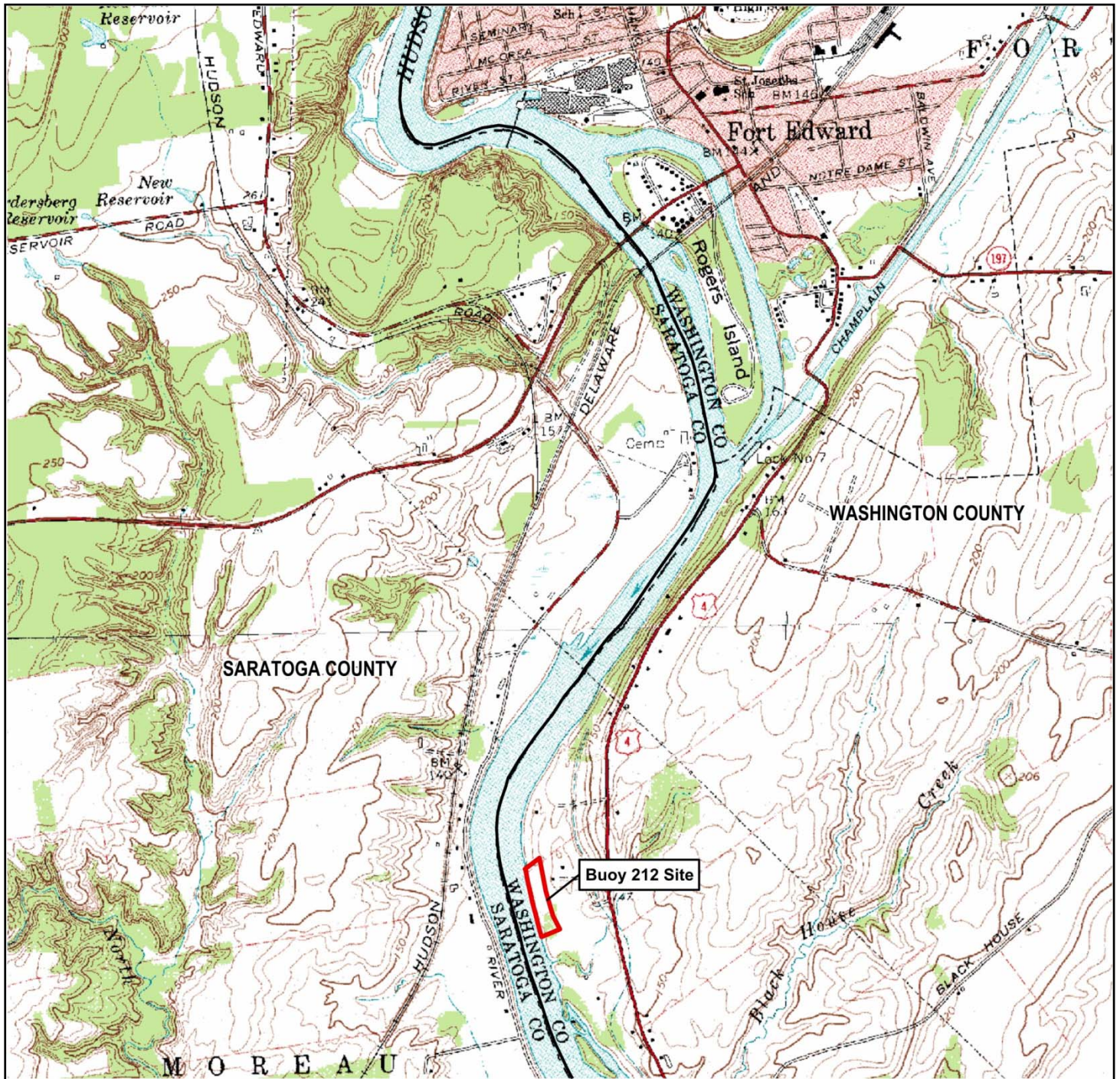
The PRPs for the site, documented to date, include:

New York State Department of Transportation

General Electric Company

The PRPs for the site declined to implement a remedial program when requested by the Department. After the remedy is selected, the PRPs will again be contacted to assume responsibility for the remedial program. If an agreement cannot be reached with the PRPs, the Department will evaluate the site for further action. The PRPs are subject to legal actions by the state for recovery of all response costs the state has incurred. NYSDOT is required to continue all operation, maintenance and monitoring activities at this site under the governing TSCA authorization for the Buoy 212 Dredge Spoil Disposal Area.

*Figure 1 - Location Map*  
*Buoy 212 Dredge Spoil Disposal Area*  
*Record of Decision*  
*March 2011*



1 0.5 0 1  
 Scale in Miles

*Excerpts from the Hudson Falls and Fort Miller Quadrangles*  
*7.5 Minute Topographic Series Map*  
*published by the U.S. Geological Survey*  
*in 1954 and photo-revised in 1980.*



## **SECTION 5: SITE CONTAMINATION**

### **5.1: Summary of the Remedial Investigation**

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

#### **5.1.1: Standards, Criteria, and Guidance (SCGs)**

The remedy must conform to 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.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCGs in the footnotes. For a full listing of all SCGs see: <http://www.dec.ny.gov/regulations/61794.html>.

#### **5.1.2: RI Information**

The analytical data collected on this site includes data for:

- groundwater
- surface water
- drinking water
- soil

The data have identified contaminants of concern. A "contaminant of concern" is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants

of concern. The nature and extent of contamination and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

polychlorinated biphenyls (PCB)	lead
cadmium	mercury
chromium	

As illustrated in Exhibit A, the contaminant(s) of concern exceed the applicable SCGs for:

- soil

## **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 issuance of the Record of Decision.

The following IRM(s) has/have been completed at this site based on conditions observed during the RI.

### **IRM - Residential Soil Removal**

PCB-contaminated dredge spoil materials/soils were identified on an adjacent residential property at concentrations above 1 ppm (the residential use SCG) during the recent RI. Dredge spoil materials/soils from the Buoy 212 site were used to construct a narrow causeway on the neighboring property for access to the dredge spoil dewatering/disposal structure when it was first established in 1970. PCBs were found in these causeway dredge spoil materials/soils at concentrations up to 6.8 ppm. To address this contamination, approximately 100 cubic yards of PCB-contaminated dredge spoil materials/soils were excavated and removed to an off-site disposal facility during the IRM Soil Removal Program. Subsequent soil sampling confirmed that PCBs of consequence were removed. The excavated causeway area was restored with a foot or more of clean cover material and armor stone.

## **5.3: Summary of Human Exposure Pathways**

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

Since the site is fenced and dredge spoils are covered with a clay cap, people will not come in contact with site related contamination. Persons could come in contact with contaminated surface soil between the fence line and the Hudson River, but access to this area is limited. Private wells at nearby properties were tested and were not affected by site contamination.

#### **5.4: Summary of Environmental Assessment**

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The Fish and Wildlife Resources Impact Analysis (FWRIA), which is included in the RI report, presents a detailed discussion of the existing and potential impacts from the site to fish and wildlife receptors.

Environmental contamination attributable to the dredge spoil materials at the site poses little or no risk to communities of terrestrial plants, invertebrates in soil, or carnivorous birds and mammals.

Monitoring continues to demonstrate that groundwater is not being impacted by any contaminants attributable to the dredge spoil materials at Buoy 212.

### **SECTION 6: SUMMARY OF THE EVALUATION OF ALTERNATIVES**

To be selected the 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. The remedy must also attain the remedial action objectives identified for the site, which are presented in Exhibit B. Potential remedial alternatives for the Site were identified, screened and evaluated in the feasibility study (FS) report.

A summary of the remedial alternatives that were considered for this site is presented in Exhibit C. Cost information is presented in the form of present worth, which 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. A summary of the Remedial Alternatives Costs is included as Exhibit D.

#### **6.1: Evaluation of Remedial Alternatives**

The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375. 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 Department has determined to be applicable on a case-specific basis.

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

3. 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.

4. 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.

5. Short-term Impacts and 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.

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 annual 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.

8. Land Use. When cleanup to pre-disposal conditions is determined to be infeasible, the Department may consider the current, intended, and reasonable anticipated future land use of the site and its surroundings in the selection of the soil remedy.

The final criterion, Community Acceptance, 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.

9. Community Acceptance. Concerns of the community regarding the investigation, the evaluation of alternatives, and the PRAP are evaluated. A responsiveness summary will be prepared that describes public comments received and the manner in which the Department will address the concerns raised. If the selected remedy differs significantly from the proposed

remedy, notices to the public will be issued describing the differences and reasons for the changes.

## **6.2: Elements of the Remedy**

The basis for the Department's remedy is set forth at Exhibit E.

The estimated present worth cost to implement the remedy is \$67,640. The cost to construct the remedy is estimated to be \$0 and the estimated average annual cost is \$4,400.

The elements of the selected remedy are as follows:

1. Maintain the isolation cap/cover, which has been constructed, over the former dredge spoil disposal structure at the Buoy 212 site by the New York State Department of Transportation in 1991 to satisfy Toxic Substances Control Act requirements imposed by the United States Environmental Protection Agency.

2. Imposition of an institutional control in the form of an environmental easement for the controlled property that: (a) allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), though land use is subject to local zoning laws; (b) requires compliance with the Department approved Site Management Plan; (c) restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and (d) requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3).

3. A Site Management Plan is required which includes the following:

(a) an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The environmental easement discussed in Paragraph 2 above.

Engineering Controls: The existing isolation cap/cover discussed in Paragraph 1 above.

This plan includes, but may not be limited to: (i) Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination; (ii) descriptions of the provisions of the environmental easement including any land use and/or groundwater use restrictions; (iii) provisions for the management and inspection of the identified engineering controls; (iv) maintaining site access controls and Department notification; and (v) the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls; and

(b) a Monitoring Plan to include, but not be limited to: (i) monitoring of groundwater to assess the performance and effectiveness of the remedy; and (ii) a schedule of monitoring and frequency of submittals to the Department.

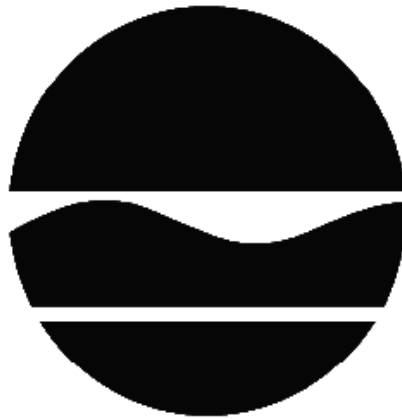


# **RECORD OF DECISION**

## **Exhibits A through E**

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Buoy 212 Dredge Spoil Disposal Area  
State Superfund Project  
Fort Edward, Washington County  
Site No. 558018  
March 2011





## **Exhibit A**

### **Nature and Extent of Contamination**

This section describes the findings of the Remedial Investigation (RI) for all environmental media that were evaluated. As described in Section 5.1.2, many surface soil, subsurface soil, groundwater and drainage water samples were collected to characterize the nature and extent of contamination.

Figures A-1 through A-4 depict the locations where samples were collected at the site and Tables A-1, A-2, A-3, and A-4 summarize the findings of the investigation for each environmental sample type. The tables present the range of contamination for the contaminants of concern currently found at the site in the environmental media evaluated and compares that data to the applicable Standards, Criteria and Guidance (SCGs) for the site. The contaminants of concern for the site fall into two chemical categories; polychlorinated biphenyls (PCBs) and inorganic compounds (metals). The results provided for the contaminants of concern found in groundwater and drainage water are compared to the applicable SCGs that allow for the unrestricted use of the site. The results provided for the contaminants of concern found in soil are compared to the applicable SCGs for unrestricted use and the applicable SCGs for restricted use as identified in Section 5.1.1 of this document.

All chemical concentrations provided in the tables are reported in parts per billion (ppb) for water and parts per million (ppm) for soil.

The following environmental media were investigated during the Remedial Investigation.

#### **Waste Materials**

Dredge spoil materials derived from sediment sporadically tainted with PCBs and metals (cadmium, chromium, lead, and mercury) in the Hudson River and subsequently removed from the Champlain Canal/Hudson River navigation channel in the past, are the waste materials at the site.

Sampling at the site in 1978 confirmed that the dredge spoil materials/soils placed at the site were contaminated with PCBs at levels up to 264 ppm. Another soil sampling program initiated in 1989 confirmed PCB contamination at the site within the limits of the closed dredge spoil disposal structure. Following the construction of TSCA-approved cover, an assessment done in 1992 confirmed the presence of PCB contamination at the site at levels greater than 50 ppm, the definition of hazardous waste, in 5 of the 21 samples that had reportable PCB detections. PCB concentrations for all samples ranged between non-detect (less than 2 ppm) and 180 ppm.

#### **Groundwater**

A total of thirty-two groundwater samples were collected from eight groundwater monitoring wells around the site in March, June, September-October and December of 2006 to assess the overburden groundwater conditions at the site. All thirty-two samples were analyzed for PCBs and metals. PCBs were not detected in any of the groundwater samples. In addition, none of the primary metals of concern (cadmium, chromium, lead, and mercury) that may be attributable to the contaminated dredge spoil materials at the site were found at levels exceeding their respective SCG values in any of the samples. Other metals (iron, magnesium, manganese, and sodium) were found at levels that exceeded their respective SCG values in the groundwater around the site, but these findings appear to represent natural conditions.

A single water sample was collected from a residential well near the site in June of 2008. The well draws water from the overburden aquifer and did not show any impact attributable to the Buoy 212 site. The sample was analyzed for PCBs and metals. No PCBs were detected in this residential water sample. Seven metals (barium,

calcium, copper, magnesium, potassium, sodium, and zinc) were detected in the water sample, but none were present at concentrations exceeding the applicable SCG value.

No site-related groundwater contamination of concern was identified during the RI. Therefore, no remedial alternatives were evaluated for groundwater.

### **Surface Soil**

Surface soil samples (covering the 0 to 2-inch soil depth interval) were collected from 72 locations at this site to assess direct human exposures. Samples from the surface at each exploration borehole, monitoring well borehole, and drainage water sampling point contributed to the overall surface soil assessment. All 72 samples were analyzed for PCBs. Results confirm PCBs at 44 surface soil sampling points with 22 samples reporting concentrations above 0.1 ppm (the unrestricted use SCG) and 14 samples reporting concentrations above 1.0 ppm (the restricted use - commercial soil cleanup objective applicable to this site). The highest PCB concentration in surface soil was 9.9 ppm collected from the Hudson River flood plain along the southwestern margin of the closed and covered dredge spoil disposal structure. Exceedances of the applicable SCGs are mainly found in samples collected from the flood plain area (14 of the 22 samples reporting concentrations above 0.1 ppm and 6 of the 14 samples reporting concentrations above 1.0 ppm ) and are not considered site-related. The other exceedances were found in samples collected along the margins of the cover over the site or on top of the cover in the vicinity of areas where burrowing animals have brought dredge spoil materials to the surface. The distribution of surface soil samples containing PCBs is illustrated in Figures A-1 and A-2.

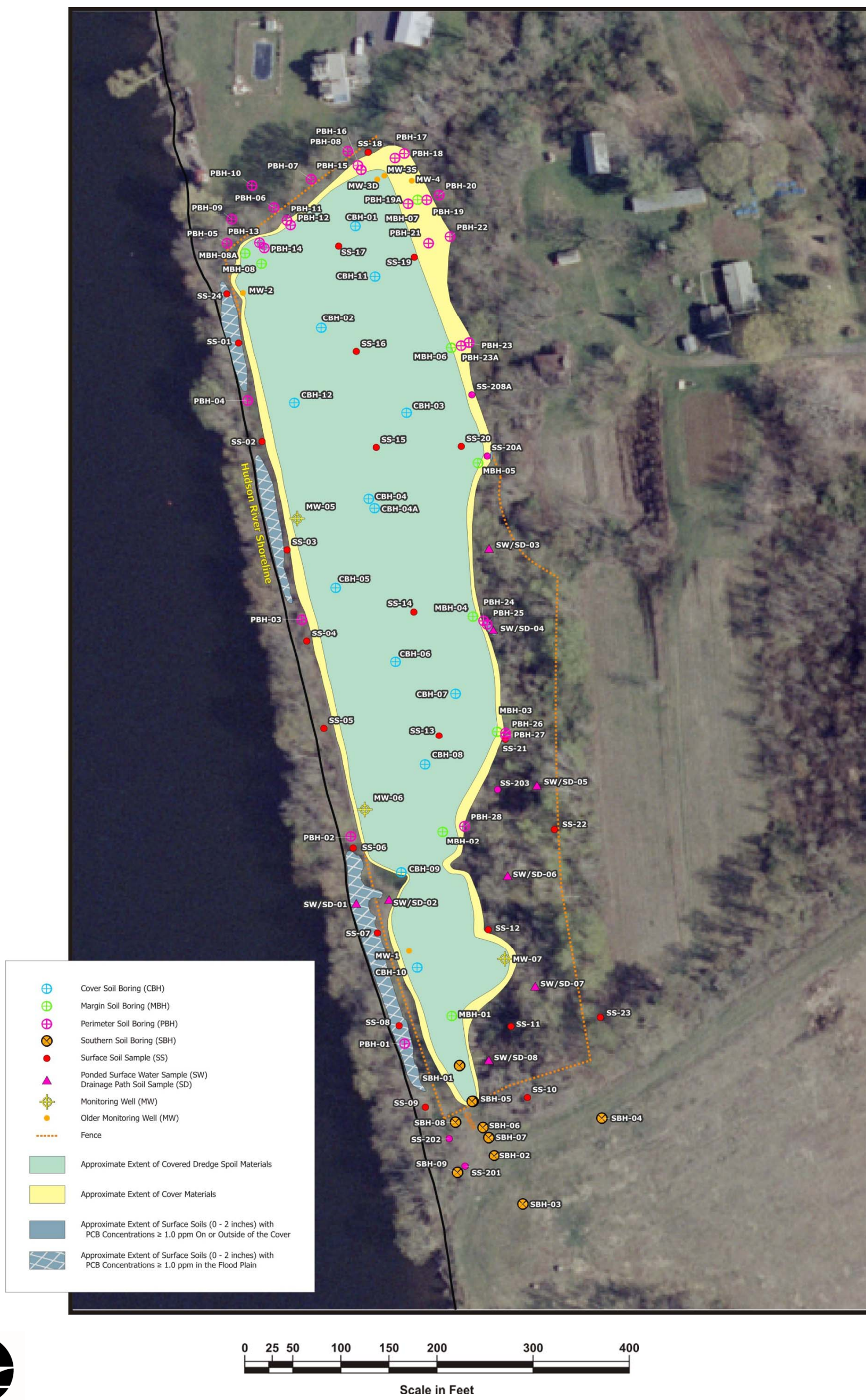
The results also indicate that chromium, lead and mercury (metals that may be attributable to the contaminated dredge spoil materials at the site or, in some cases, historical and reoccurring flood plain deposition of contaminated Hudson River sediments) were found at levels exceeding their respective unrestricted and commercial use SCG values in a few samples (see Table A-2).

**Figure A-1**  
**Approximate Extent of Surface Soils (0 - 2 inches) with**  
**PCB Concentrations  $\geq 0.1$  ppm On or Outside of the Cover**  
**Buoy 212 Dredge Spoil Disposal Area**  
**Record of Decision**  
**March 2011**



**Excerpt from the February 2011**  
**"Remedial Investigation Report for the Buoy 212 Dredge Spoil Disposal Area"**

**Figure A-2**  
**Approximate Extent of Surface Soils (0 - 2 inches) with**  
**PCB Concentrations  $\geq$  1.0 ppm On or Outside of the Cover**  
**Buoy 212 Dredge Spoil Disposal Area**  
**Record of Decision**  
**March 2011**



**Excerpt from the February 2011**  
**"Remedial Investigation Report for the Buoy 212 Dredge Spoil Disposal Area"**

**Table A-2 SURFACE SOIL**  
**Sampling Period: November 2005 to June 2008**

Contaminants of Concern		Concentration Range (ppm) <sup>a</sup>	Unrestricted Use SCG <sup>b</sup> (ppm)	Frequency of Exceeding the Unrestricted Use SCG	Commercial Use SCG <sup>c</sup> (ppm)	Frequency of Exceeding the Commercial Use SCG
<b>PCBs</b>	Total PCBs	ND (0.016 U) to 9.9	0.1	22 of 72	1 <sup>d</sup>	14 of 72
<b>Inorganic Compounds</b>	Chromium	3.9 to 71.6	30	3 of 19	41 <sup>d</sup>	1 of 19
	Lead	5.1 to 110	63	1 of 19	63 <sup>d</sup>	1 of 19
	Mercury	ND (0.022 U) to 0.249	0.18	3 of 19	0.18 <sup>d</sup>	3 of 19
	Aluminum	3060 J to 27800	15800	2 of 10	NA	---
	Calcium	1200 J to 20700	9190	2 of 10	NA	---
	Iron	9960 J to 35600	25600	2 of 10	NA	---
	Magnesium	975 J to 10400	5130	2 of 10	NA	---
	Potassium	376 J to 3740	1890	2 of 10	NA	---
	Sodium	ND (154 UJ) to 262	211	2 of 10	NA	---
	Zinc	39.5 to 243	109	3 of 10	109	3 of 10

Note <sup>a</sup> ppm = parts per million, which is equivalent to milligrams per kilogram or mg/kg in soil.

Note <sup>b</sup> SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.

Note <sup>c</sup> SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Commercial Use, unless otherwise noted.

Note <sup>d</sup> SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Ecological Resources.

**Data Qualifiers**

J - data qualifier that indicates an estimated value.

U - data qualifier that indicates not detected at the reporting limit shown.

UJ - data qualifier that indicates not detected at the estimated reporting limit shown.

NA - indicates that there is no applicable standard or guidance value.

ND - indicates not detected at the reporting limit shown in parentheses.

## Subsurface Soil

One hundred and twenty-eight subsurface soil samples (deeper than the 0 to 2-inch soil depth interval) were collected from 56 locations at this site and analyzed for PCBs and metals. Results confirm PCBs in 76 soil samples with 66 samples reporting concentrations above 0.1 ppm (the unrestricted use SCG) and 53 samples reporting concentrations above 1.0 ppm (the commercial use SCG applicable to this site). The highest PCB concentration in the soil under the existing isolation cover was 47 ppm. The highest PCB concentration in the subsurface soil outside of the existing isolation cover and in the vicinity of the closed and covered former dredge spoil disposal area was 2.4 ppm. Nearly all of the subsurface soil results found above the applicable SCGs outside of the existing isolation cover were either located in samples collected from the Hudson River flood plain or in the vicinity of areas where burrowing animals have disturbed dredge spoil materials along the margins of the closed and covered dredge spoil disposal area. The distribution of subsurface soil samples containing PCBs is illustrated in Figure A-3 and Figure A-4.

The results also indicate that cadmium and chromium (metals that may be attributable to the contaminated dredge spoil materials at the site or, in some cases, historical and reoccurring flood plain deposition of contaminated

Hudson River sediments) were found at levels exceeding their respective unrestricted use SCG values in a few subsurface soil samples analyzed for these metals. These metals are not significant risk drivers for either human health or for wildlife at the site in light of their low frequency. The same rationale can be applied to the findings for iron listed in the table although iron may also be naturally occurring as well (see Table A-3).

**Table A-3 SUBSURFACE SOIL**  
**Sampling Period: February 2006 to July 2008**

Contaminants of Concern		Concentration Range (ppm) <sup>a</sup>	Unrestricted Use SCG <sup>b</sup> (ppm)	Frequency of Exceeding the Unrestricted Use SCG	Commercial Use SCG <sup>c</sup> (ppm)	Frequency of Exceeding the Commercial Use SCG
<b>PCBs</b>	Total PCBs	ND (0.018 U) to 47	0.1	66 of 128	1 <sup>d</sup>	52 of 128
<b>Inorganic Compounds</b>	Cadmium	ND (0.23 U) to 17.6	2.5	3 of 16	4 <sup>d</sup>	1 of 16
	Chromium	5.2 to 45.6	30	3 of 16	41 <sup>d</sup>	1 of 16
	Iron	9960 J to 35600	25600	1 of 7	NA	- - -

Note <sup>a</sup> ppm = parts per million, which is equivalent to milligrams per kilogram or mg/kg in soil.

Note <sup>b</sup> SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.

Note <sup>c</sup> SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Commercial Use, unless otherwise noted.

Note <sup>d</sup> SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Ecological Resources.

**Data Qualifiers**

J - data qualifier that indicates an estimated value.

U - data qualifier that indicates not detected at the reporting limit shown.

NA - indicates that there is no applicable standard or guidance value.

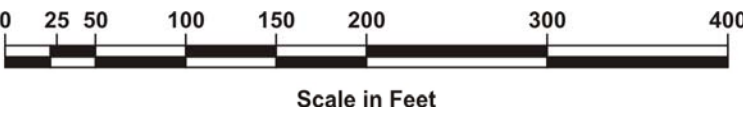
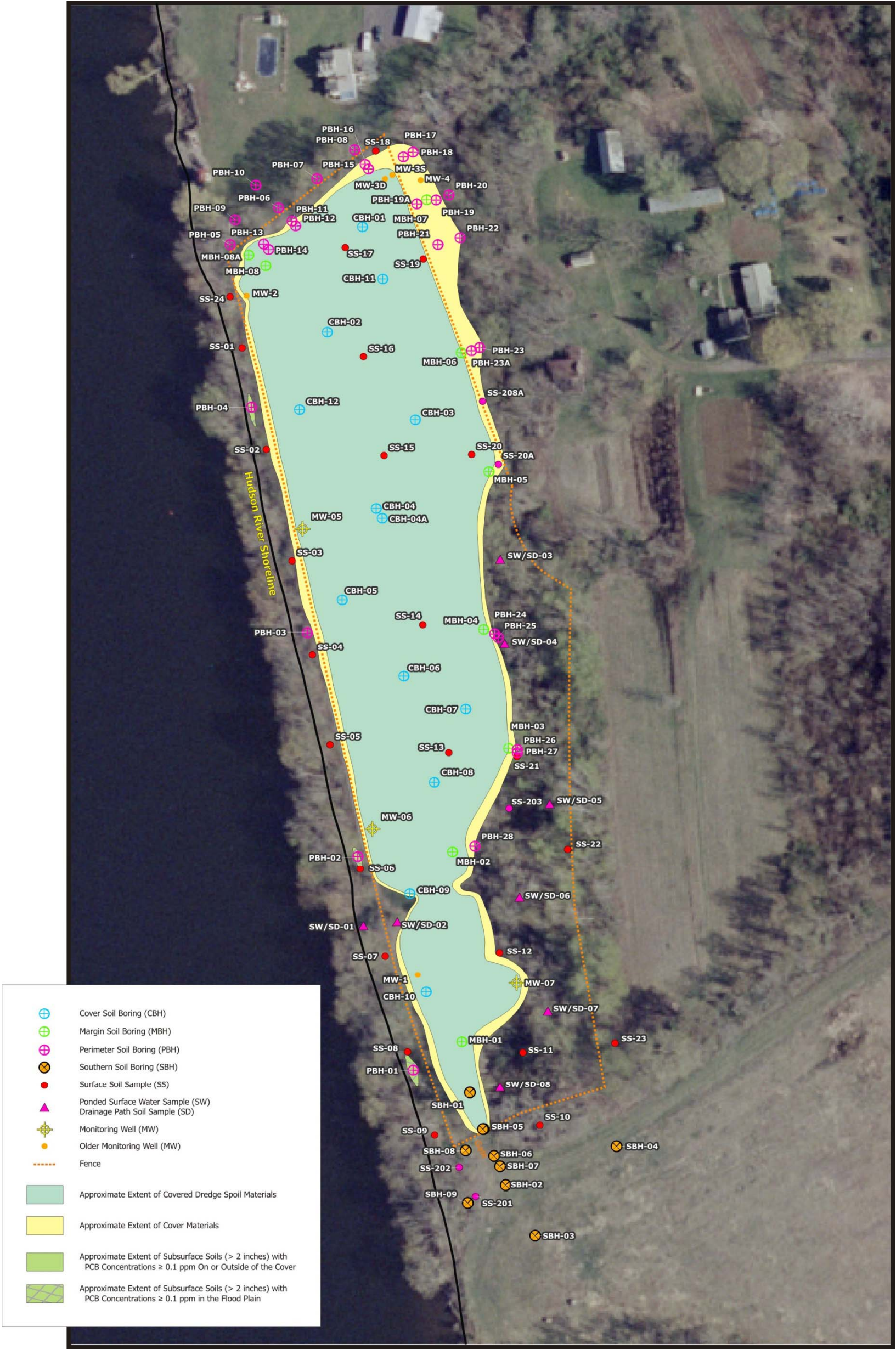
ND - indicates not detected at the reporting limit shown in parentheses.

## Drainage Water

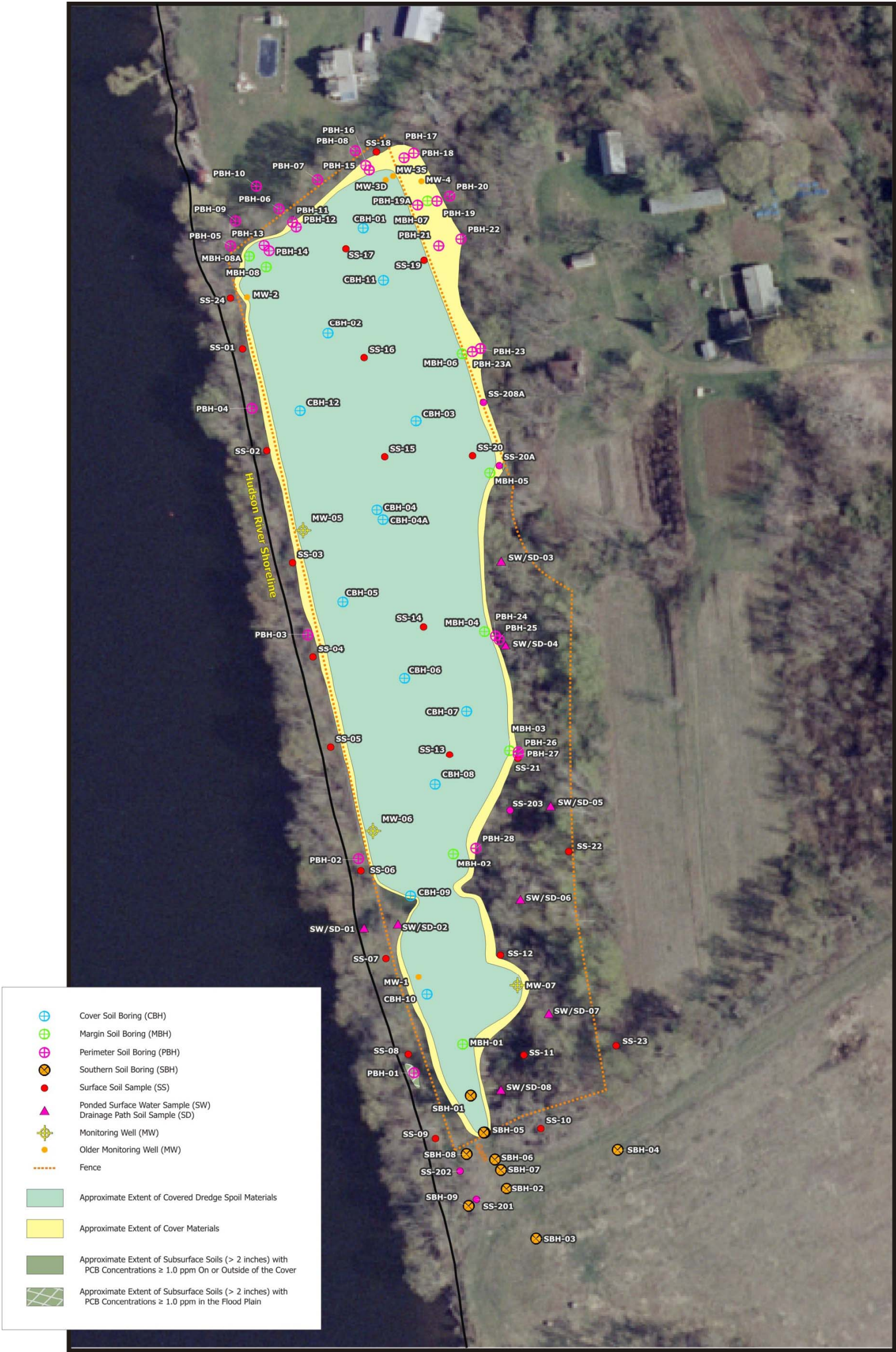
There are no sustained surface water bodies on this site. One area where precipitation intermittently drains along the eastern margin and collects intermittently in the southeastern part of the property was identified and sampled once. Drainage water that collects in this area has the potential to flow from the east side of the closed and covered former dredge spoil disposal structure to the west side through a steel culvert when the water level is high enough to spill through. Once on the west side of the dredge spoil disposal structure, the water drains across a narrow flood plain shelf to the adjacent Hudson River. At the time of sampling, water was flowing through the pass-through culvert and samples were collected along the water path on the west side of the disposal structure. Figures A-1 through A-4 depict the location of these sampling points.

No site-related surface water contamination of concern was identified during the RI/FS. Therefore, no remedial alternatives were evaluated for surface water.

**Figure A-3**  
**Approximate Extent of Subsurface Soils (> 2 inches) with**  
**PCB Concentrations  $\geq$  0.1 ppm On or Outside of the Cover**  
**Buoy 212 Dredge Spoil Disposal Area**  
**Record of Decision**  
**March 2011**



**Figure A-4**  
**Approximate Extent of Subsurface Soils (> 2 inches) with**  
**PCB Concentrations ≥ 1.0 ppm On or Outside of the Cover**  
**Buoy 212 Dredge Spoil Disposal Area**  
**Record of Decision**  
**March 2011**



0 25 50 100 150 200 300 400  
Scale in Feet

**Excerpt from the February 2011**  
**"Remedial Investigation Report for the Buoy 212 Dredge Spoil Disposal Area"**

## **Exhibit B**

### **Summary of the Remediation Objectives**

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial objectives for this site are to:

#### **Soil**

##### **RAOs for Public Health Protection**

- Prevent ingestion/direct contact with contaminated soil.

##### **RAOs for Environmental Protection**

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

Exhibit C

Description of Remedial Alternatives

The following alternatives were considered based on the remedial action objectives (see Exhibit B) to address the contaminated dredge spoil material/soil identified at the Buoy 212 site as described in Exhibit A of this document.

Alternative 1: No Action

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. This alternative leaves the site in its present condition and does not provide any additional protection to public health and the environment.

Alternative 2: No Further Action with Institutional Controls and Monitoring

This alternative recognizes the existing isolation cover placed over the former dredge spoil disposal structure at the Buoy 212 site by the New York State Department of Transportation (NYSDOT) in 1991 to satisfy Toxic Substances Control Act (TSCA) requirements imposed by the United States Environmental Protection Agency (USEPA) at that time. This alternative also recognizes the remediation of an adjacent property by the IRM described in Section 5.2 of this document and aims to address the remaining PCB-contaminated dredge spoil material/soil identified and confirmed within the existing isolation cover and elsewhere at the Buoy 212 site during the RI.

The No Further Action with Institutional Controls and Monitoring alternative requires an environmental easement on the property to limit the potential for human exposure to contaminated dredge spoil material/soil. This institutional control specifies a set of limits relative to the use and development of the property and requires a site management plan to control activities at the site to minimize the potential for creating exposure pathways to the known site contamination.

Another element of this alternative involves a program to monitor the existing groundwater wells located around the site to verify that PCBs are not moving into the waters of the Hudson River and Champlain Canal from the site. The existing series of seven groundwater monitoring wells will be monitored by the NYSDOT as long as required by TSCA. As part of the remedy monitoring program, the results would be evaluated to determine if any modifications to the remedy or monitoring program are warranted.

Present Worth:.....	\$67,640
Capital Cost:.....	\$0,000
Annual Costs:.....	\$4,400

Alternative 3: Excavation and Off-Site Disposal  
(Restoration to Pre-Disposal or Unrestricted Conditions)

This alternative achieves all of the SCGs discussed in Section 5.1.1 and Exhibit A of this document, and soil will meet the unrestricted soil cleanup objectives listed in Part 375-6.8 (a) via full excavation and off-site disposal. In this alternative, excavated dredge spoil materials/soils are stockpiled, characterized, and transported to an appropriately permitted disposal facility. The extent of the proposed excavation for this alternative involves the handling of approximately 56,000 cubic yards of contaminated material. Excavated areas would be backfilled to grade with clean material meeting the unrestricted soil SCGs.

Since all of the contaminated dredge spoil materials/soils are to be removed from this site under this alternative, no institutional controls, monitoring program or maintenance activities are necessary.

*Present Worth:* ..... \$9,900,000  
*Capital Cost:* ..... \$9,900,000  
*Annual Costs:* ..... \$0

**Alternative 4: Excavation and Off-Site Treatment by High Temperature Thermal Desorption  
(Restoration to Pre-Disposal or Unrestricted Conditions)**

This alternative achieves all of the SCGs discussed in Section 5.1.1 and Exhibit A of this document, and soil meets the unrestricted soil cleanup objectives listed in Part 375-6.8 (a). The Excavation and Off-Site Treatment by High Temperature Thermal Desorption alternative addresses the PCB-contaminated dredge spoil material/soil at the site by excavation and treatment. In this alternative, excavated dredge spoil materials/soils are transported to an off-site High Temperature Thermal Desorption (HTTD) facility for treatment, and the remediated soils would not be returned to the site. The extent of the proposed excavation for this alternative involves the processing of approximately 56,000 cubic yards of contaminated material.

The requirements for backfill/site restoration would be the same as those described for Alternative 3.

Since all of the contaminated dredge spoil materials/soils are to be removed from this site under this alternative, no institutional controls, monitoring program, or maintenance activities are necessary.

*Present Worth:* ..... \$12,200,000  
*Capital Cost:* ..... \$12,200,000  
*Annual Costs:* ..... \$0

## Exhibit D

### Remedial Alternative Costs

Remedial Alternative	Capital Cost (\$)	Annual Costs (\$)	Total Present Worth (\$)
1. No Action	\$0	\$0	\$0
2. No Further Action with Institutional Controls and Monitoring	\$0	\$4,400	\$67,640
3. Excavation and Off-Site Disposal	\$9,900,000	\$0	\$9,900,000
4. Excavation and Off-Site Treatment by High Temperature Thermal Desorption	\$12,200,000	\$0	\$12,200,000

## **Exhibit E**

### **Summary of the Selected Remedy**

The Department has selected Alternative 2, No Further Action with Institutional Controls and Monitoring as the remedy for this site. The elements of this remedy are described in Section 6.2 of this document.

### **Basis for Selection**

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

Alternative 2 (no further action with institutional controls and monitoring) has been selected because, as described below, it satisfies the threshold criteria and provides the best balance of the primary balancing criteria described in Section 6.1 of this document. It achieves the remediation goals for the site by using institutional controls on the property to limit the potential for human exposure to contaminated dredge spoil material/soil at the site by direct contact, and preventing the potential threats to groundwater and surface water via migration of PCB-contaminated dredge spoil material/soil (taking into account the existing perimeter fence and the isolation cover); and by establishing a program to monitor the existing groundwater wells located around the site to verify that PCBs are not moving into the waters of the Hudson River and Champlain Canal from the site. It provides a comparable level of protection at considerably less cost than Alternates 3 and 4.

Alternative 1 (no action) does not provide protection of human health or the environment, one of threshold criteria, since it would not achieve remediation goals described in Exhibit B of this document. Therefore, Alternative 1 will not be considered any further.

Alternatives 2, 3, and 4 are protective of human health and the environment and would comply with established SCGs, which is the second threshold criterion. Considering that Alternatives 2, 3, and 4 all satisfy the threshold criteria, the five balancing criteria are particularly important in selecting a final remedy for the site.

Short-term impacts are not anticipated for Alternative 2, since no remediation activities would take place. Alternatives 3 and 4 have potential, adverse, short-term impacts related to construction, earth-moving, and material transport activities but these may be effectively addressed via standard construction practices and engineering controls.

Alternative 2 will be effective for preventing human exposure and preventing the migration of PCBs to groundwater and surface water in the long-term via the institutional controls and monitoring. Alternatives 3 and 4 have a higher level of long-term effectiveness and permanence when compared to Alternative 2 considering all site-wide contaminated soils would be excavated and either isolated in an off-site landfill or treated.

Alternatives 2 and 3 result in a reduction of the mobility of contaminants at the site via containment. Alternative 4 reduces the toxicity, mobility, and volume of contaminants by treatment of the contaminated materials.

Alternative 2 is the easiest to implement since it does not involve major excavation and soil transport.

Alternative 2 is the most cost effective alternative since it would cost significantly less than Alternatives 3 and 4 while providing a comparable level of protectiveness.



# **APPENDIX A**

## **RESPONSIVENESS SUMMARY**



# **RESPONSIVENESS SUMMARY**

## **Buoy 212 Dredge Spoil Disposal Area**

### **State Superfund Project**

**Town of Fort Edward – Washington County - New York**

**Site No. 558018**

**March 2011**

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The Proposed Remedial Action Plan (PRAP) for the Buoy 212 Dredge Spoil Disposal Area (Buoy 212), was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 25, 2011. The PRAP outlined the remedial measure proposed for the contaminated soil at the Buoy 212 site.

The release of the PRAP and the start of the public comment period were announced by sending a notice to the public contact list and through the distribution of a fact sheet to nearby property owners, elected officials, local media outlets and other interested parties. The fact sheet also served to invite the public to comment on the proposed remedy and notified the public about a scheduled public availability session and public meeting for Buoy 212.

The public availability session and public meeting were held on March 15, 2011 and provided information about the Remedial Investigation (RI) and the Feasibility Study (FS) for the Buoy 212 site and discussed elements of the proposed remedy. The meeting also provided citizens with an opportunity to discuss concerns, ask questions and comment on the proposed remedy. All questions and comments received during the public comment period have become part of the Administrative Record for this site. The public comment period for the Buoy 212 PRAP ended on March 28, 2011.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following passages provide the narrative of each question/comment received and the Department's response.

**The following questions and comments were made and answered during the public availability session and public meeting held on March 15, 2011:**

**COMMENT 1:** Why don't you remove the dredge spoil disposal mound completely and restore my access to the Hudson River?

**RESPONSE 1:** Conditions at the closed and covered Buoy 212 Dredge Spoil Disposal Area do not warrant complete removal. The selected remedy achieves the remediation goals for the site by using engineering and institutional controls on the property which limit the potential for human exposure

to contaminated dredge spoil material/soil at the site by direct contact and prevent the potential threats to groundwater and surface water via migration of PCB-contaminated dredge spoil material/soil. The remedy takes into account the existing perimeter fence and the isolation cover and establishes use and ground water restrictions on the site through an environmental easement, as well as providing for a site management plan which includes monitoring the existing groundwater wells located around the site to verify that PCBs are not moving into the waters of the Hudson River and Champlain Canal from the site. The selected remedy provides a comparable level of protection at considerably less cost than the remedial alternatives calling for excavation and off-site disposal or excavation and off-site treatment that would result in the complete removal of the dredge spoil disposal mound. In addition, the selected remedy avoids short term adverse impacts associated with excavation and trucking for off-site disposal.

**COMMENT 2:** There were PCBs exposed at the surface on my property, should I be concerned?

**RESPONSE 2:** During supplemental investigation work in 2008, it was learned that dredge spoil materials from the Buoy 212 site were used to construct a narrow causeway in a low lying area on a neighboring property for access to the dredge spoil dewatering/disposal structure when it was first established in 1970. Soil samples were collected from this area and PCBs were found at the surface at concentrations between 4.3 and 6.8 parts per million, above the soil cleanup objective (SCO) for PCBs in soil on residential property of 1 part per million. The PCB-contaminated dredge spoil materials and soils were removed from this property and clean soil and armor stone was placed to restore grade, by the IRM described in this ROD. This area does not represent an exposure concern.

**COMMENT 3:** There is elevated cancer in this area, what is causing it?

**RESPONSE 3:** The New York State Department of Health and the Department are not aware of elevated cancer in the area. Cancer is not a single disease but represents more than 100 different types of diseases with different causes and risk factors. Cancer is very common; affecting one in two men and one in three women over the course of their lifetime.

In the State of New York, physicians and other health care providers are required by law to report all cases of cancer diagnosed in the State to the NYSDOH. The NYSDOH Cancer Surveillance Program maintains a Cancer Registry documenting each cancer case, the place of residence at the time of diagnosis, and other socio-demographic information. The NYSDOH uses this information to track cancer incidence rates and to identify and evaluate trends in diagnosis. More information about this program and cancer rates is available on the NYSDOH website at: <http://www.health.ny.gov/diseases/cancer/>.

**COMMENT 4:** I want my drinking water well to be tested every year.

**RESPONSE 4:** The private well in question has been tested on several occasions. The well was first tested by the NYSDOH in 1991. No PCBs were detected in the well water samples collected at that time. Most recently in 2008, the private well was sampled again and no PCBs were detected in that sample.

Groundwater at the site and in the area flows in a west-southwest direction toward the Hudson River. Groundwater is not flowing from the site toward the private well. Moreover, groundwater samples collected as part of the Remedial Investigation from eight monitoring wells along the perimeter of the site did not contain PCBs. The network of wells at the site will continue to be monitored in the future. Based on all available information, annual sampling of this private well is not warranted.

**COMMENT 5:** A private party residing adjacent to the Buoy 212 site identified plans to start using an existing well again as a residential drinking water source and inquired about testing.

**RESPONSE 5:** Recent groundwater flow information and groundwater data indicate that the subject well would not be affected by PCBs related to the site. Accordingly, sampling of this potential private well is not warranted. Also see Response 1.

**COMMENT 6:** It would be much cheaper to remove the dredge spoils at the Buoy 212 site while General Electric is dredging the Hudson River, why can't these two projects be combined to get this done?

**RESPONSE 6:** See Response 1.

**COMMENT 7:** Can PCBs move from the site and contaminate surrounding yards?

**RESPONSE 7:** The selected remedy will prevent PCB migration from the site. The Buoy 212 Dredge Spoil Disposal Area is closed and covered with clay over a sand cover. The sand cover that was placed over the reworked dewatering and disposal mound in late 1979 is a continuous layer that varies between six-inches and two-feet in thickness over the entire closed structure. This was upgraded in 1991 when a second more impervious clay cover was placed over the sand covered spoils. This clay cover is another continuous layer and varies in thickness between six-inches and five-feet over the entire closed structure. The combination of these two cover layers put the top surface of the potentially contaminated dredge spoil materials at depths ranging between about one-foot and nearly five-feet below the cover surface consistent with the commercial use restriction.

**COMMENT 8:** Are PCBs exposed at the surface at the site?

**RESPONSE 8:** PCBs were found in some surface soil samples collected in areas where burrowing animals have disturbed limited areas of dredge spoil materials along the margins of the dredge spoil disposal area and from the Hudson River flood plain along the River. Access to these areas is limited and the potential for the migration of PCBs bound to these surface soils is minimal. Areas where contaminated soil is exposed outside of the isolation cover at the site will be addressed in the site management plan and contaminated Hudson River flood plain soil will be addressed during a comprehensive RI/FS evaluation under EPA's Hudson River PCBs Superfund Site remedial program.

**COMMENT 9:** Why can't the material in the dredge spoil disposal mound at least be leveled so that my view of the river can be restored?

**RESPONSE 9:** Environmental conditions at the closed and covered Buoy 212 Dredge Spoil Disposal Area do not warrant modifications to the configuration of the disposal mound or cover at this time. Restrictions under the Toxic Substances Control Act (TSCA) program would also limit modifications to the disposal mound.

**COMMENT 10:** Why did the NYSDOT remove the sediment from the River and the Canal and place the dredge spoils at the site?

**RESPONSE 10:** At the time when the Buoy 212 Dredge Spoil Disposal Area was being used, the New York State Department of Transportation (NYSDOT) was obligated to maintain the Champlain Canal/Hudson River navigation channel to a specified navigation depth. As the navigation channel filled with sediment over time, the NYSDOT would routinely dredge portions of the channel. The Buoy 212 site was constructed and used by the NYSDOT to dewater and hold dredge spoil material removed from the Champlain Canal/Hudson River navigation channel south of Champlain Canal Lock 7 - with emphasis on the navigation channel in the Hudson River between the Buoy 212 and Buoy 216 channel markers - in conjunction with routine and emergency maintenance dredging operations of the Canal System.

**Joseph Moloughney, P.E., Director of Environmental Affairs, New York State Canal Corporation, submitted a letter on March 28, 2011 which included the following comment:**

**COMMENT 11:** The Canal Corporation has reviewed the proposed Remedial Action Plan (PRAP) for the Buoy 212 Dredge Spoil Disposal Area Site, dated February 2011 and submits the following comment:

Page 11, item 2 requires that the remedial party or site owner to periodically certify that institutional and engineering controls are functioning consistent with Part 375-1.8(h)(3) requirements. It is the position of the Canal Corporation that the state, in this instance, the Department of Transportation (NYSDOT), must certify and implement and otherwise monitor any institutional or engineering controls consistent with NYSDOT's obligations set forth in Canal Law Section 6(6). Specifically, Canal Law Section 6(6), in pertinent part, provides that any liability arising out of any act or omission occurring prior to the effective date of the transfer of power and duties authorized herein (April 1992) of the officers, employees or agents of the NYSDOT or any other agency of the state, other than the Thruway Authority/Canal Corporation, shall remain a liability of the NYSDOT or such other agency of the state and not the Thruway Authority or Canal Corporation. As noted in the PRAP, the property was last used in 1979, well before the transfer of the Canal system from NYSDOT to the Thruway Authority. Additionally, NYSDOT is under an ongoing obligation with EPA to monitor and report conditions at the site pursuant to TSCA. These ongoing obligations, which existed prior to the transfer of jurisdiction of the property to the Canal Corporation, must remain with NYSDOT consistent with the statutory requirements of Canal Law Section 6(6).

**RESPONSE 11:** Comment noted.

**John G. Haggard, Manager of the Site Evaluation and Remediation Program for General Electric, submitted a comment letter on March 28, 2011, which is included in the Administrative Record (Appendix B).**

**COMMENT 12:** The Buoy 212 disposal area is not an “Inactive Hazardous Waste Disposal Site” as defined by the Environmental Conservation Law, and therefore the New York State Department Environmental Conservation has no authority to issue a Record of Decision regarding the Buoy 212 disposal area under the State Superfund Program.

**RESPONSE 12:** Nothing in Environmental Conservation Law precludes the Department from utilizing the ROD process to document the rationale for selecting the remedial alternative for this site and to engage in citizen participation as the remedy selection is completed.

**COMMENT 13:** In its March 28, 2011 letter GE asserts that the company should not be identified as a PRP for this site for various reasons listed in the letter.

**RESPONSE 13:** The Department has considered GE's assertions in the company's comment letter on the PRAP and disagrees with GE's assertions that the company is not responsible for the PCBs which GE released into the Hudson River from their capacitor plants in Fort Edward and Hudson Falls. However, the ultimate responsibility for the remedial program relative to releases of PCBs to the River which are currently located in the Buoy 212 site will not be decided in this document.

As GE's sole concern with the remedy identified in the PRAP as the preferred alternative is related to its responsibility for the PCBs released from its plant sites, and raised no concerns in the comment letter with the details of the remedy selection process or the analysis of alternatives, no changes to the identified preferred remedial alternative are required.



**APPENDIX B**

**ADMINISTRATIVE RECORD**



# **Administrative Record**

## **Buoy 212 Dredge Spoil Disposal Area**

**Town of Fort Edward – Washington County - New York**

**Site No. 558018**

**March 2011**

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### **Documents**

1. "Proposed Remedial Action Plan for the Buoy 212 Dredge Spoil Disposal Area - Town of Fort Edward - Washington County - New York - Site No. 558018", dated February 25, 2011, prepared by the Department in consultation with the New York State Department of Health.
2. "Proposed Remedial Action Plan Fact Sheet and Meeting Announcement for the Buoy 212 Dredge Spoil Disposal Area", dated February 2011, prepared by the Department.
3. "Feasibility Study for the Buoy 212 Dredge Spoil Disposal Area - Fort Edward, New York - Site Number 558018", dated February 2011, prepared by the New York State Department of Environmental Conservation and Ecology and Environment Engineering.
4. "Remedial Investigation Report for the Buoy 212 Dredge Spoil Disposal Area - Fort Edward, New York - Site Number 558018", dated February 2011, prepared by the New York State Department of Environmental Conservation and Ecology and Environment Engineering.
5. "Final Technical Work Plan for the Remedial Investigation and Feasibility Study at the Buoy 212 Dredge Spoil Disposal Area", dated February 2006, prepared by Ecology and Environment Engineering.
6. "Technical Scope of Work for the Remedial Investigation and Feasibility Study at the Buoy 212 Dredge Spoil Disposal Area", dated June 2005, prepared by the Department.
7. "Dredge Spoils Investigation in the Upper Hudson River Valley", Dated July 2001, prepared by the Department.
8. "Report - Hudson River PCB Project - Dredge Spoil Sites Investigation - Special Area 13 - Buoy 212, Old Moreau - Rogers Island - Site 518 - Buoy 204 Annex - Lock 4 - Lock 1", Volume I, dated December 1992, prepared by Malcolm Pirnie, Incorporated.
9. "Migration of PCBs from Landfills and Dredge Spoil Sites in the Hudson River Valley, New York - Final Report", dated November 1978, prepared by Weston Environmental.

### **Comment Letters**

1. Letter dated March 28, 2011 from Joseph Moloughney, P.E., Director of Environmental Affairs, New York State Canal Corporation.
2. Letter dated March 28, 2011 from John G. Haggard, Manager of the Site Evaluation and Remediation Program for General Electric.

