Department of Environmental Conservation

Division of Environmental Remediation

Record of Decision

Erie Canal: Town of Frankfort Section Site
State Superfund Project
Frankfort, Herkimer County, New York
Site Number 622006

March 2010

New York State Department of Environmental Conservation
DAVID A. PATERSON, *Governor* ALEXANDER B. GRANNIS, *Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

Erie Canal – Town of Frankfort Section
State Superfund Project
Frankfort, Herkimer County, New York
Site No. 622006

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedy for the Erie Canal – Town of Frankfort Section site, a Class 2 inactive hazardous waste disposal site. The selected remedial program was chosen in accordance with the New York State Environmental Conservation Law, 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 Erie Canal – Town of Frankfort Section and the public's input to the Proposed Remedial Action Plan (PRAP) 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

Based on the results of the remedial investigation feasibility study (RI/FS) for the Erie Canal – Town of Frankfort Section site and the criteria identified for evaluation of alternatives, the Department has selected excavation and off-site treatment/disposal of PCB and metal contaminated sediments as the remedy for this site.

The components of the remedy are as follows:

1. A remedial design program to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program.

2. Excavation, on-site dewatering and off-site disposal at a permitted facility of contaminated sediments from the Old Erie Canal Site, which contain PCBs and metals at levels that exceed the sediment screening criteria equivalent to the unrestricted use remediation goals. The remedy includes excavation of all shallow sediments (0-3ft) over the entire area of canal. Deeper excavation below three (3) feet will be targeted to remove all PCB sediment contamination greater than 0.35ppm. Approximately 23,791 cubic yards of sediment will be excavated, dewatered and transported off-site for treatment and disposal.

3. Restoration of the existing grade of the excavated areas will not be required. Rather, the excavated canal bed will be restored, utilizing natural stream bank restoration techniques to the extent practicable, to include the addition of some fill with grading of the canal bottom to allow for pooling and meandering of storm-water flow in order to promote the re-establishment of the ecological environment. Imported fill will meet the requirements of 6 NYCRR 375-6.8 and the remediation goals consist of a mixture of grain sizes that will allow for the natural re-growth of the ecological environment as well as protection from erosional forces. Additionally, plantings native to the area will be utilized to stabilize the banks and restore the ecological resource.

4. All restored areas will be monitored for a period of one year following the Department's determination of substantial completion of the site remediation by the contractor. During this time the restored areas will be inspected for erosion, settlement and growth of plantings and grass. Areas will be repaired and restored as directed by the Department. Details of the program will be developed in the remedial design. Included in this program is a sampling and analysis program for surface water and sediments downstream of the canal area to establish a post-remediation baseline. The scope of the sampling and analysis program for surface water and sediment downstream of the site will be developed during design and will be consistent with prior sampling.

5. Green remediation and sustainability efforts will be considered in the design and implementation of the remedy to the extent practicable, including:

   - using renewable energy sources
   - reduce green house gas emissions
   - encourage low carbon technologies
   - conserve natural resources
   - increase recycling and reuse of clean materials
   - preserve open space and working landscapes

New York State Department of Health Acceptance

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

Declaration

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

MAR 3 1 2010

Date

Dale A. Desnoyers, Director
Division of Environmental Remediation

RECORD OF DECISION
Erie Canal – Town of Frankfort Section
State Superfund Project
Frankfort, Herkimer County New York
Site No. 622006
March 2010

SECTION 1: SUMMARYAND PURPOSE OF THE SELECTED REMEDY

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 Erie Canal – Town of Frankfort Section site. The disposal of hazardous waste at the site has resulted in threats to public health and the environment that are addressed by this remedy presented in this Record of Decision (ROD). The disposal of hazardous wastes at this site, as more fully described in Section 5 of this document, have contaminated various environmental media. The remedy, discussed in detail in Section 8, is intended to attain the remedial action objectives identified for this site in Section 6 for protection of public health and the environment. This ROD identifies the selected remedy, summarizes the other alternatives considered, and discusses the reasons for the selected remedy. The Department has selected a final remedy for the site after careful consideration of all comments received during the public comment period.

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 ROD in accordance with the requirements of 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.

The information here is a summary of what can be found in the site related reports and documents which are available for review at the document repositories. The public is encouraged to review the reports and documents, which are available at the following repositories:

Town Of Frankfort, Town Hall
140 South Litchfield Street
Frankfort, New York 13340
(315) 894-8737
Hours: Please Call

NYSDEC Region 6, Utica Office
207 Genesee St
Utica, NY 13501
(315) 793-2554
(By appointment only)
Mon - Fri: 8:00 am - 3:00 pm

SECTION 2: SITE DESCRIPTION AND HISTORY

2.1: Location and Description

The Site is the area of mean high water within an abandoned section of the Erie Canal which begins just east of Turner Street in the City of Utica, Oneida County, and extends approximately 4,200 feet in an easterly direction into the Town of Frankfort, Herkimer County, New York (Figure 1). The mean high water within the canal section (i.e., the Site) is 1.6 acres in area and is bounded as follows:

- to the north by Route 5S, residential areas and several businesses;
- to the east by Ferguson Road (dirt), a self storage facility and then Dyke Road;
- to the south by the Remet Corporation, vacant grass land and a sand and gravel company; and
- to the west by Turner Street and a vacant commercial property.

The Watertown Business Complex is located south of the Remet Corporation property. Land use in the vicinity of the Site is primarily commercial and industrial.

Since the canal was abandoned in the early 1900's, it has become a flat gradient drainage way that receives surface water drainage from a predominantly commercial / industrial area. The drainage way over time has evolved from an open storm drainage channel to a re-vegetated habitat area with freshwater wetland flora such as cattails, successional shrubs and willows along the heavily vegetated canal banks, as well as marsh animals such as beaver and muskrat. The canal surface water varies in width from seven (7) to sixty (60) feet wide and the depth of water ranges from one (1) to seven (7) feet. Surface water flows slowly to the east and portions of the Site are nearly completely filled with miscellaneous material, including granular to fine soil, sediment and rocks. The main source of surface water within the canal is the result of a hydraulic connection with the area groundwater and storm water drainage. Storm water from adjacent manufacturing facilities reportedly flows into the western end of the canal through a 30-inch storm sewer. Surface water flows to the east toward a stand pipe at the eastern end of the canal which is the apparent surface water outlet from the Site. This surface water then flows beneath Route 5S and day lights to a small tributary stream that flows eventually to the Mohawk River.

The Mohawk River, located to the north of the Site, appears to be a local discharge point for groundwater from the Site. Groundwater at the Site was identified at between six (6) and ten (10) feet below the ground surface during the RI. There is a steep hydraulic gradient to the south of the Site, which then flattens closer to the former canal.

Surface soils in the vicinity of the Site are described in the 1975 Soil Survey of Herkimer County as gravel and fine sandy loam and other unknown materials with an approximate permeability range of 10^{-5} to 10^{-3} centimeters (cm) per second. Underlying the sand and gravel deposits is glacial till which directly overlies the bedrock surface. Bedrock in the vicinity of the Site (the Mohawk Valley) is flat lying shale with some interbedded siltstone identified as part of the Utica Shale Formation.

2.2: Operational/Disposal History

The section of the canal comprising the Site was reportedly built between 1817 and 1825 and is a portion of the 117-mile section of the canal constructed alongside the Mohawk River. The New York State Barge Canal replaced most of the original canal upon its completion in 1918, leaving canal sections such as this Site abandoned. The Site was subsequently used as a drainage area for storm water flow, as well as wastewater disposal approximately between 1950 and 1981 by up-gradient manufacturing facilities. These facilities included electroplating facilities, arms/munitions factories and an electric substation. Reported disposal included plating wastes, industrial solvents, and polychlorinated biphenyl (PCB)-contaminated tars. These facilities discharged wastewater and perhaps storm water directly into the Site through a 30-inch storm sewer, resulting in several feet of thick, oily sludge accumulating in the canal bed at the western (upstream) end of the Site. In 1983, a section of the canal banks gave way, allowing waste to escape from the Site and flow into a residential area to the north. The break in the canal banks was repaired and the released waste material removed. Although the Site is still a discharge point for storm water, it is no longer used for wastewater disposal.

The property is presently owned by several land owners including National Grid (formerly Niagara Mohawk Power Corporation), which also operated a substation adjacent to the Site. Industries that have operated adjacent to or near the Site include, but are not limited to:

- Remet Chemical Corporation (1979-1999) (Tax Lot 104.3-1-19).
- Former occupants of the Charlestown (Currently Watertown) Business Complex (Tax Lot 104.3-1-21), which include, but are not limited to:
  - Savage Arms Company (pre-WWI to 1956);
  - Unisys Corporation (operated as Sperry Rand Corporation between 1956-1977);
  - Empire Circuits (1977-1981); and
- Chicago Pneumatic Tool Company (1947-1997) (Tax Lot 104.3-1-24.2).

2.3: Remedial History

As a result of identified hazardous waste disposal, the Department listed the Site as a Class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites in New York in 1986. 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.

- A Phase I investigation was completed in 1983.
- A Phase II Site Investigation (SI) was completed in 1986 by Niagara Mohawk Power Corporation.
- The site was listed as a Class 2 site on the NYS Registry of Inactive Hazardous Waste Disposal Sites in 1986.
- A Potentially Responsible Parties (PRP) group formed in 2002. Additional investigations were undertaken on behalf of the PRP group and completed in June 2003.

SECTION 3: LAND USE

The Department may consider the current, intended, and reasonable anticipated future land use of the site and its surroundings when assessing the nature and extent of contamination. The site is the area of mean high water within an abandoned section of the Erie Canal which begins just east of Turner Street in the City of Utica and extends approximately 4,200 feet in an easterly direction into the Town of Frankfort. The site is a drainage way that received upgradient storm water from commercial and industrial properties. The drainage way over time has evolved from an open storm drainage channel to a re-vegetated habitat area similar to a freshwater wetland. Off-site areas are characterized as commercial and industrial land use and include a major transportation corridor (State Rt. 5) directly south of the site. As such, the off-site upland soils are compared to the commercial criteria as described in Part 375-1.8 (g) because the adjacent property is, and is anticipated to remain, commercial property.

A comparison of the appropriate SCGs for the identified land use against the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in section 5.1.2.

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, including but not limited to:

- Savage Arms Company,
- Chicago Pneumatic Tool Company,
- Unisys Corporation (Sperry Rand Corporation),
- Remet Chemical Corporation, and
- National Grid (Formerly Niagara Mohawk)

The PRPs for the site declined to implement a remedial program when first requested by the Department. Now that a remedy has been 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 under the State Superfund. The PRPs are subject to legal actions by the state for recovery of all response costs the state has incurred.

SECTION 5: SITE CONTAMINATION

A remedial investigation was conducted to determine the nature and extent of contamination and was used to evaluate the alternatives for addressing the significant threats to human health and the environment.

5.1: Summary of the Remedial Investigation

The purpose of the Remedial Investigation (RI) was to define the nature and extent of any contamination resulting from previous activities at the site. The RI was conducted between November 2004 and November 2008. 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,
- Survey of residential water supply wells,
- Soil borings and monitoring well installations
- Sampling of surface and subsurface soils, and groundwater
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

5.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform with 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 surface and subsurface soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in the following Sections list the applicable SCG in the footnotes. For a full listing of all SCGs see:

http://www.dec.ny.gov/regulations/61794.html

Based on the RI results, in comparison to the SCGs and potential public health and environmental exposure routes, certain media and areas of the site require remediation. These are summarized in Section 5.1.2. More complete information can be found in the RI Report.

5.1.2: Nature and Extent of Contamination

This section describes the findings of the Remedial investigation. As described in the RI report, waste/ source materials were identified at the site and are impacting sediment.

Waste/Source Areas

Wastes are defined in 6 NYCRR Part 375-1.2 (aw) and include solid, industrial and/or hazardous wastes. Source areas are defined in 6 NYCRR Part 375-1.2 (au). Source areas are areas of concern at a site where substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium. Wastes and source areas identified at the site include black oily sludge observed in sediment throughout the canal. In the western (upstream) end of the canal this oily sludge is several feet thick. The canal has historically been used as a collector for wastewater discharge from adjacent commercial properties and for

collection of storm water. The Site is no longer used for waste water drainage but continues to receive storm water from the adjacent properties. The waste/source areas identified will be addressed in the remedy selection process.

This section describes the findings for all environmental media that were evaluated. As described in the RI report, groundwater, soil, surface water, and sediment samples were collected to characterize the nature and extent of contamination.

For each media, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into four categories; volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides/ polychlorinated biphenyls (PCBs), and inorganics (metals). For comparison purposes the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCG identified in Section 3 are also presented.

Groundwater

The RI data indicate that groundwater at, and in the immediate vicinity of, the Site contains concentrations of iron, magnesium, manganese, and sodium above NYS ambient water quality standards or guidance. However, these analytes are naturally occurring and are not considered to be site-related contaminants. Metals identified in Site sediment at concentrations above SCGs are not present in Site groundwater at concentrations above NYS ambient water quality standards

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

Soil

Surface soil samples collected during the RI from upland locations adjacent to the Site were compared to the 6 NYCRR Part 375 soil cleanup objectives (SCOs). Surface soil concentrations of contaminants were below the commercial use SCOs. A few compounds were noted above the unrestricted use SCOs including acetone, methylene chloride, two (2) SVOCs and lead.

Subsurface soil samples collected during the RI from the banks adjacent to the Site were compared to the 6 NYCRR Part 375 SCOs. In general, concentrations of contaminants were below the protection of groundwater SCOs, except as noted in the table below. PCBs detected in subsurface soils were detected at concentrations below the unrestricted use SCO. No visual evidence of soil contamination or elevated photoionization detector (PID) readings were noted during the field investigation; therefore, test pitting was not conducted.
No site-related soil contamination of concern was identified above the commercial SCO during the RI. Therefore, no remedial alternatives were evaluated for surface soil.

Table 1 - Soil					
Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCO[b] (ppm)	Frequency Exceeding Unrestricted SCO	Commercial SCO[c] (ppm)	Frequency Exceeding Restricted SCO
VOCs					
Acetone	0.033 – 0.26	0.05	12/14	500	0 / 14
Methlyene Chloride	0.008 – 0.18	0.05	7/14	500	0 / 14
SVOCs					
Benzo(a)anthracene	0.072 – 1.9	1	1/14	5.6	0 / 14
Benzo(b)fluoranthene	0.061 – 2.5	1.0	1/14	5.6	0 / 14
Metals					
Lead	6 - 642	63	1/14	1,000	0 / 14

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a),Unrestricted Soil Cleanup Objectives.
c - SCG: Part 375-6.8(b), Commercial Soil Cleanup Objectives.

Surface Water

Analytical results from this RI indicate that only 2 locations of surface water analyzed in the canal had low level exceedences of NYS ambient water quality standards for cis-1,2-DCE.However, cis-1,2DCE was not detected in site soil, sediment or the groundwater therefore, surface water contamination does not appear to be attributed to the site. It is likely attributed to off-site storm water run-off. SVOCs, metals and PCBs, while detected at concentrations above SCGs in sediment, do not exceed SCGs in surface water within the canal. The Department conducted PCB passive in-situ concentration/extraction samplers (PISCES) sampling in 1995-1996. This method qualitatively evaluates PCB surface water contamination. The PISCES sampling identified the Erie Canal-Town of Frankfort Section as a potential source of PCB contamination to the Mohawk River. Conventional surface water sampling conducted at this Site did not detect PCBs, however the method detection limit (MDL) of 1 parts per billion (ppb) is above the New York State surface water quality standard for PCBs of 0.00012 parts per billion (ppb). Therefore, even though no PCBs were detected in the Site water samples the PISCES data indicate surface water in the Erie Canal-Town of Frankfort Section Site is a potential threat of PCB contamination to the Mohawk River.

Table 2 - Surface Water			
Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
VOCs			
Cis-1,2-Dichloroethene	1 - 19	5	2 / 8

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.
b-SCG: Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1) and 6NYCRR Part 703: Surface Water and Groundwater Quality Standards.

Site-related surface water contamination of concern was not identified during the RI. Therefore, no remedial alternatives were evaluated for surface water.

Sediments

During the RI field investigation, sediment at the Site was observed to consist of black, fine-to-medium sand. A black oily sludge was observed in sediment throughout the canal and, in some areas of the western (upstream) end of the canal, this oily sludge was several feet thick. PCBs, metals, and/or SVOCs (primarily PAHs) were generally detected in sediments throughout the canal at concentrations above sediment screening criteria. The RI indicates that about 95 percent of the surface area of the canal has shallow sediment (0-3ft) with PCB concentrations above 1ppm for PCB's. Further metals, particularly mercury, are above the sediment screening criteria lowest effect limit (LEL) in the sediment (0-3ft), and are co-located with the PCB contamination.

PCB contamination is presented graphically in Figure 2 and the results for mercury are presented in Figure 3. Mercury was used as an indicator or proxy to represent the vast distribution of metals throughout the canal. SVOCs were detected in sediment in the canal, mainly as PAHs.

Table 3 – Sediment			
Detected Constituents	Concentration Range Detected (ppm)[a]	SCG[bcd] (ppm)	Frequency Exceeding SCG
VOCs			
Chlorobenzene	0.002 – 0.075	0.063	1 / 100
Ethylbenzene	0.002 – 1.1	0.43	2 / 100
Toluene	0.0008 – 22	0.88	9 / 100
Xylene (Total)	0.0006 – 20	1.6	10 / 100
SVOCs			
2-Methlynaphthalene	0.041 – 8.8	0.61	17 / 100

Table 3 – Sediment			
Anthracene	0.039 – 4	1.9	4 / 100
Benzo(a)anthracene	0.048 – 4.7	0.21	49 / 100
Bis(2-Ethylhexyl)phthalate	0.12 – 200	3.6	37 / 100
Fluorene	0.077 – 5.8	0.14	29 / 100
Pentachlorophenol	2.5 – 2.5	0.72	1 / 100
Phenanthrene	0.05 – 22	2.1	35 / 100
Metals			
Antimony	0.43 – 3.7	2 – 25	4 / 100
Arsenic	2.9 – 36.6	6 – 33	77 / 100
Cadmium	0.09 – 131	0.6 – 9	67 / 100
Chromium	11.9 – 43500	26 – 110	77 / 100
Copper	22.9 – 42100	16 – 110	85 / 100
Iron	7880 – 58500	460 – 1100	69 / 100
Lead	6.8 – 8340	31 – 110	76 / 100
Manganese	118 – 1320	460 – 1100	55 / 100
Mercury	0.06 – 27.9	0.15 – 1.3	75 / 100
Nickel	11.5 – 1470	16 - 50	84 / 100
Silver	0.32 – 277	1 – 2.2	44 / 80
Zinc	37.4 – 4810	120 - 270	74 / 100
Pesticides/PCBs			
Aroclor - 1254	0.053 - 310	0.35	72 / 100
0 – 3 feet			
Aroclor - 1254	0.053 - 310	1.0	62 / 85

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in sediment;
b - SCG: The Department's "Technical Guidance for Screening Contaminated Sediments", dated July 1994
c – VOCs, SVOCs and PCBs are based on Site specific total organic carbon
d – SCG values for metals – both the Lowest Effect Level and Severe Effect Level are presented. Frequency exceeding is based upon comparison to the Lowest Effect Level.

Based on the findings of the Remedial Investigation, the disposal of hazardous waste has not resulted in the contamination of groundwater and soil. The site contaminants located in the sediments are considered to be the primary contaminants of concern, which drove the remediation of sediment to be addressed by the remedy selection process. The contaminants are PCBs and the metals; cadmium, chromium, copper, lead, mercury, and silver.

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.

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

5.3: Summary of Human Exposure Pathways:

This section describes the current or potential human exposures (the way people may come in contact with contamination) that may result from the site contamination. A more detailed discussion of the human exposure pathways can be found in the RI report available at the document repository. An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: [1] a contaminant source, [2] contaminant release and transport mechanisms, [3] a point of exposure, [4] a route of exposure, and [5] a receptor population.

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

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

There are no current complete human exposure pathways identified. Since the site is located in an industrialized remote area and is partially fenced, human contact with PCB and metals contaminated sediment is not likely. The area is also served by a public water supply.

Surface water at the Site is not used as a source of drinking water, is not used for recreational purposes, and therefore, the potential for human exposure to contaminated surface water is not considered an exposure pathway of significance.

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 Impact Analysis (FWIA), which is included in the RI report, presents a detailed discussion of the existing and potential impacts from the site poses to fish and wildlife receptors.

The FWIA has identified ecological resources at or in the vicinity of the site which constitute an important component of the environment. The FWIA has determined that the ecological resource is, or potentially is, impacted by contaminants in the soil of the site requiring the application of the Soil Cleanup Objectives for the protection of ecological resources.

The following environmental exposure pathways and ecological impacts have been identified:

Surface water resources at or near the site include the canal waters, the unnamed tributary to the Mohawk River, and the Mohawk River. The Department conducted PCB PISCES sampling in 1995 and1996. This methodology qualitatively evaluates PCB surface water contamination. The PISCES sampling identified the Erie Canal-Frankfort Section as a potential source of PCB contamination to the Mohawk River. Conventional surface water sampling conducted at this Site did not detect PCBs; however, the method detection limit (MDL) of 1 part per billion (ppb) is above the New York State surface water quality standard for PCBs of 0.00012 parts per billion (ppb). Therefore, even though no PCBs were detected in the Site water samples the PISCES data indicates surface water in the Erie Canal –Town of Frankfort Section Site is a potential threat of PCB contamination to the Mohawk River.

Fish and wildlife resources using the canal are at risk of impact from the sediment-related exposures to PCBs and metals in the canal. The remedy must address the potential impacts of the site sediments and to the receiving surface water resource (i.e., Mohawk River).

Groundwater resources at the site include the shallow overburden groundwater identified at between six (6) and ten (10) feet below ground surface.

No site-related groundwater contamination has been identified. Therefore, no remediation of groundwater is required.

SECTION 6: 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:

Public Health Protection

Surface water

- Prevent surface water contamination which may result in fish advisories.

Sediment

- Prevent direct contact with contaminated sediments.
- Prevent sediment contamination which may result in fish advisories.

Environmental Protection

Surface Water

- Restore surface water to ambient water quality criteria for the contaminant of concern, to the extent feasible.

- Prevent impacts to biota from ingestion/direct contact with surface water causing toxicity and impacts from bioaccumulation through marine and aquatic food chain.

Sediment

- Prevent releases of contaminants from sediment that would result in surface water levels in excess of ambient water quality criteria.
- Prevent impacts to biota from ingestion/direct contact with sediments causing toxicity and impacts from bioaccumulation through marine and aquatic food chain.

SECTION 7: 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. Potential remedial alternatives for the Site were identified, screened and evaluated in the feasibility study.

A summary of the remedial alternatives that were considered for this site is presented below. 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.

7.1: Description of Remedial Alternatives

The following alternatives were considered to address the contaminated media identified at the site as describe in Section 5:

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: Excavation and Off-site Treatment/Disposal of Contaminated Sediments from 0-3 feet; deeper excavation of PCBs greater than 50ppm.

Alternative 2 includes excavation of all shallow sediments (0-3ft) over the entire area of canal. Deeper excavation below three (3) feet would be targeted to remove all PCB sediment contamination greater than 50ppm. A three (3) foot soil cover system would be placed over the excavation areas. Approximately 18,036 cubic yards of sediment would be excavated, dewatered and transported off-site for treatment and disposal.

This alternative would include, a pre-design investigations and studies, mobilization and temporary de-watering facilities and controls, excavation and off-site treatment/disposal of contaminated sediment, construction of a soil cover system (i.e. two foot barrier cover and a one-foot restoration layer), institutional controls, and long-term monitoring.

This alternative also includes a Site Management Plan which would include site restrictions and institutional controls to prevent stormwater from mobilizing contaminated sediments left in place under the cover system. Periodic site inspections would be conducted to evaluate the integrity of the stormwater controls and to identify the need for repair or enhancement of the remedy. Implementation of this alternative would require restrictions to be placed on the Site.

Present Worth: *$10,645,000*
Capital Cost: *$10,371,000*
Annual Costs:
(Years 1-5): *$45,000*
(Years 5-30): *$4,000*

Alternative 3: Excavation and Off-site Treatment/Disposal of Contaminated Sediments from 0-3 feet; deeper excavation of PCBs greater than 10 ppm.

Alternative 3 includes excavation of all shallow sediments (0-3ft) over the entire area of canal. Deeper excavation below three (3) feet would be targeted to remove all PCB sediment contamination greater than 10ppm. A three (3) foot soil cover system would be placed over the excavation areas. Approximately 19,188 cubic yards of sediment would be excavated, dewatered and transported off-site for treatment and disposal.

This alternative would include, a pre-design investigations and studies, mobilization and temporary de-watering facilities and controls, excavation and off-site treatment/disposal of contaminated sediments, construction of a soil cover system (i.e. two foot barrier cover and a one-foot restoration layer), institutional controls, and long-term monitoring.

This alternative also includes a Site Management Plan which would include site restrictions and institutional controls to prevent storm water from mobilizing contaminated sediments left in place under the cover system. Periodic site inspections would be conducted to evaluate the integrity of the storm water controls and to identify the need for repair or enhancement of the remedy. Implementation of this alternative would require restrictions to be placed on the Site.

Present Worth: *$11,419,000*
Capital Cost: *$11,145,000*
Annual Costs:
(Years 1-5): *$45,000*
Years 5-30): *$4,000*

Alternative 4: Excavation and Off-site Treatment/Disposal of Contaminated Sediments from 0-3 feet; deeper excavation of PCBs greater than 0.35ppm.

Alternative 4 includes excavation of all shallow sediments (0-3ft) over the entire area of canal. Deeper excavation below three (3) feet would be targeted to remove all PCB sediment contamination greater than 0.35ppm. Approximately 23,791 cubic yards of sediment would be excavated, dewatered and transported off-site for treatment and disposal.

This alternative would include, pre-design investigations and studies, mobilization and temporary de-watering facilities and controls, and excavation and off-site treatment/disposal of contaminated sediment. Full restoration of the excavated area is not required. The canal would be restored, utilizing natural stream bank restoration techniques to the extent practicable, to include the addition of some fill with grading of the canal bottom to allow for pooling and meandering of storm-water flow in order to promote the re-establishment of the ecological environment. Imported fill would be sampled and must meet applicable SCOs and would consist of the appropriate mixture of grain sizes to support natural re-growth of vegetation and other biota. The banks would be restored to assist with ecological recovery.

Alternative 4 would include excavation and off-site treatment/disposal of PCB contaminated sediments above 0.35 ppm along with metals that exceed the sediment screening criteria at the Site. This Alternative does not require a cover system and no restrictions are required as all PCB and metal contaminated sediments are removed to unrestricted levels. The restored canal would be monitored for a period of one year. The scope of this program includes sampling and analysis of surface water and sediments downstream of the canal area.

Present Worth: *$12,531,000*
Capital Cost: *$12,401, 000*
Annual Costs:
(Years 1-5): *$29,000*
(Years 5-30): *$0*

7.2 Evaluation of Remedial Alternatives

The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375, which sets forth the requirements for the remediation of inactive hazardous waste disposal sites in New York. A detailed discussion of the evaluation criteria and comparative analysis is included in the feasibility study.

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

1. 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. The costs for each alternative are presented in the Remedial Alternatives Cost Table 4.

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.

9. Community Acceptance. Concerns of the community regarding the investigation, the evaluation of alternatives, and the PRAP have been evaluated. The responsiveness summary (Appendix A) presents the public comments received and the manner in which the Department addressed the concerns raised. No significant comments were received.

Table 4
Remedial Alternative Costs

Remedial Alternative	Capital Cost ($)	Annual Costs ($) (Years 1-5) (Year 5-30)	Total Present Worth ($)
Alternative 1 – No Action	0	0 0	0
Alternative 2 – Excavation and Off-site Treatment/Disposal from 0-3 feet; deeper excavation of PCBs greater than 50ppm.	10,371,000	45,000 4,000	10,645,000
Alternative 3 – Excavation and Off-site Treatment/Disposal from 0-3 feet; deeper excavation of PCBs greater than 10 ppm.	11,145,000	45,000 4,000	11,419,000
Alternative 4 – Excavation and Off-site Treatment/Disposal from 0-3 feet; deeper excavation of PCBs greater than 0.35ppm	12,401,000	29,000 0	12,531,000

SECTION 8: SUMMARY OF THE SELECTED REMEDY

Based on the Administrative Record (Appendix B) and the discussion presented below, the Department has selected Alternative 4, Excavation and Off-site Treatment/Disposal of Contaminated Sediments from 0-3 feet; deeper excavation of PCBs greater than 0.35ppm, to meet Sediment Screening Criteria, allowing for unrestricted use of the Site, as the remedy for this site. The elements of this remedy are described at the end of this section.

8.1 Basis for Selection

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

Alternative 4 has been selected because, as described below, it satisfies the threshold criteria and provides the best balance of the balancing criterion described in Section 7.2. It will achieve the remediation goals for the site by removing the contaminated sediment from the Site, which is the most significant threat to the environment.

Alternative 1 (No Action) does not provide any protection to public health and the environment and will not be evaluated further.

Alternatives 2 through 4 would protect public health and the environment through eliminating, reducing, or controlling existing or potential exposure pathways through removal, treatment and/or disposal, engineering controls, or institutional controls. These remedial alternatives would all achieve the cleanup objectives for sediment.

Alternatives 2 and 3 would require restrictions at the Site because sediments containing contaminants in excess of the sediment screening criteria for PCBs and metals would be left in place beneath a three (3) foot cover system. Alternative 4 will provide the greatest protection of public health and the environment by returning the Site to pre-disposal conditions to the extent practicable. Alternative 4 will not require restrictions for the future use of the Site.

Alternatives 2 through 4 would result in short-term adverse impacts and risks to the community, site workers, and the environment as a result of implementation. Implementation of these alternatives would include preparation of and adherence to a construction work plan and health and safety plan and a community monitoring plan. It is estimated that these alternatives could be fully implemented in less than one year, at which time they would achieve the RAOs for soil and sediment.

Both Alternatives 2 and 3 would provide long term effectiveness and permanence by removing and disposing of PCB contaminated sediments. Alternative 2 proposes that PCB contaminated sediments from 0-3 feet greater than 50 ppm would be removed and disposed of off-site and remaining deeper PCB contaminated sediments greater than or equal to 0.35 ppm would not be excavated and would remain on site under a three (3)foot cover system. Alternative 3 differs from Alternative 2 such that Alternative 3 would remove and dispose PCB contaminated sediments greater than 10 ppm and remaining deeper PCB contaminated sediments greater than 0.35 ppm would not be removed, but would be covered with a three (3) foot cover system. Alternative 3 would result in less potential exposure to ecological and human receptors as more contaminated material is removed making this alternative slightly more effective than Alternative 2. Alternatives 2 and 3 include a component whereby contaminated sediments remain on-site. As a result, these alternatives would require restrictions to be placed on the Site, and would rely upon institutional controls and cover inspections and maintenance to prevent potential future public health or environmental exposure. Alternative 4 will not require restrictions to be placed on the Site and will not require the use of engineering or institutional controls to prevent future exposure to sediments exceeding protective concentrations.

Alternatives 2 through 4 would result in the reduction of mobility and volume of sediment contamination at and in the vicinity of the Site through excavation and off-site disposal or on-site cover system. However, Alternatives 2 and 3 would result in a lesser degree of reduction in the toxicity of contamination remaining on-site than Alternative 4, by leaving residual contaminants at the site.

Technical issues associated with implementability for Alternatives 2 through 4 are similar, and are related to the excavation and restoration/re-grading of the canal. Access to the Site and adequate space to perform the remedial actions proposed for Alternatives 2 through 4 is limited and most likely access to use adjacent properties will be required.

The current and reasonably anticipated future land use of the Site is for storm water management and ecological resources. Alternatives 2 through 4 would be compatible with current land use and reasonably anticipated future land use. Alternatives 2 and 3 include institutional controls to restrict future use that could result in potential exposure to residual contamination. Alternative 4 will allow for no restrictions to be placed on the Site.

The estimated present worth cost to implement the remedy is $12,531,000. The cost to construct the remedy is estimated to be $12,401,000 and the estimated average annual costs for long term monitoring for the first five (5) years is $29,000.

8.2 Elements of the Selected Remedy

The elements of the selected unrestricted use remedy are as follows:

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

2. Excavation, on-site dewatering and off-site disposal at a permitted facility of contaminated sediments from the Erie Canal- Frankfort Section Site, which contain PCBs and metals at levels that exceed the sediment screening criteria equivalent to the unrestricted use remediation goals. The remedy includes excavation of all shallow sediments (0-3ft) over the entire area of canal. Deeper excavation below three (3) feet will be targeted to remove all PCB sediment contamination greater than 0.35ppm. Approximately 23,791 cubic yards of sediment will be excavated, dewatered and transported off-site for treatment and disposal. The extent of the proposed sediment removal is presented on Figure 4.

3. Restoration of existing grade of the excavated areas will not be required. Rather the excavated canal bed will be restored, utilizing natural stream bank restoration techniques to the extent practicable, to include the addition of some fill with grading of the canal bottom to allow for pooling and meandering of storm-water flow in order to promote the re-establishment of the ecological environment. Imported fill will meet the requirements of 6 NYCRR 375-6.8 and the remediation goals consist of a mixture of grain sizes that will allow for the natural re-growth of the ecological environment as well as protection from erosional forces. Additionally, plantings native to the area will be utilized to stabilize the banks and restore the ecological resource.

4. All restored areas will be monitored for a period of one year following the Department's determination of substantial completion of the site remediation by the contractor. During this time the restored areas will be inspected for erosion, settlement and growth of plantings and grass. Areas will be repaired and restored as directed by the Department. Details of the program will be developed in the remedial design. Included in this program is a sampling and analysis program for surface water and sediments downstream of the canal area to establish a post-remediation baseline. The scope of the sampling and analysis program for surface water and sediment downstream of the site will be developed during design and will be consistent with prior sampling.

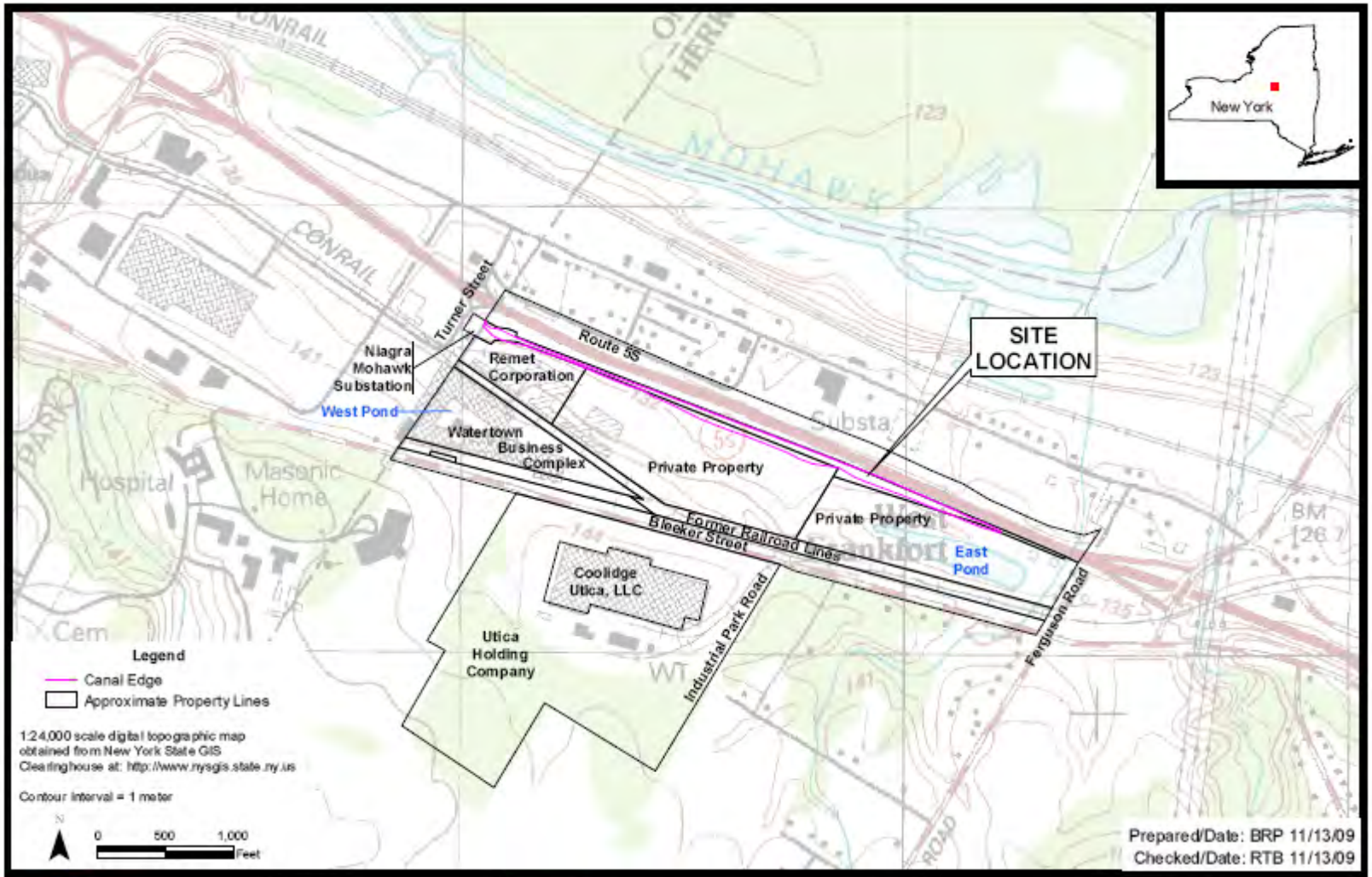
5. Green remediation and sustainability efforts will be considered in the design and implementation of the remedy to the extent practicable, including:

   - using renewable energy sources
   - reduce green house gas emissions
   - encourage low carbon technologies
   - conserve natural resources
   - increase recycling and reuse of clean materials
   - preserve open space and working landscapes

SECTION 9: HIGHLIGHTS OF COMMUNITY PARTICIPATION

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

- Repositories for documents pertaining to the site were established.
- A public contact list, which included nearby property owners, elected officials, local media and other interested parties, was established.
- A Fact Sheet prepared and mailed out to inform the public on the commencement of Remedial Investigation, May 2005.
- A Fact Sheet Prepared and mailed out to the public to inform that the Feasibility Study was complete and announce the Public Availability Session, June, 2009.
- Public availability session held in June 2009 at the Utica State Office Building.
- A Fact Sheet prepared in February 2010, informing the public of the release of the Proposed Remedial Action Plan (PRAP), Comment period and date of Public Meeting on the PRAP.
- Public Meeting held on February 24, 2010 at the Utica State Office Building to present and receive comment on the PRAP.
- A responsiveness summary (Appendix A) was prepared to address the comments received during the public comment period for the PRAP.

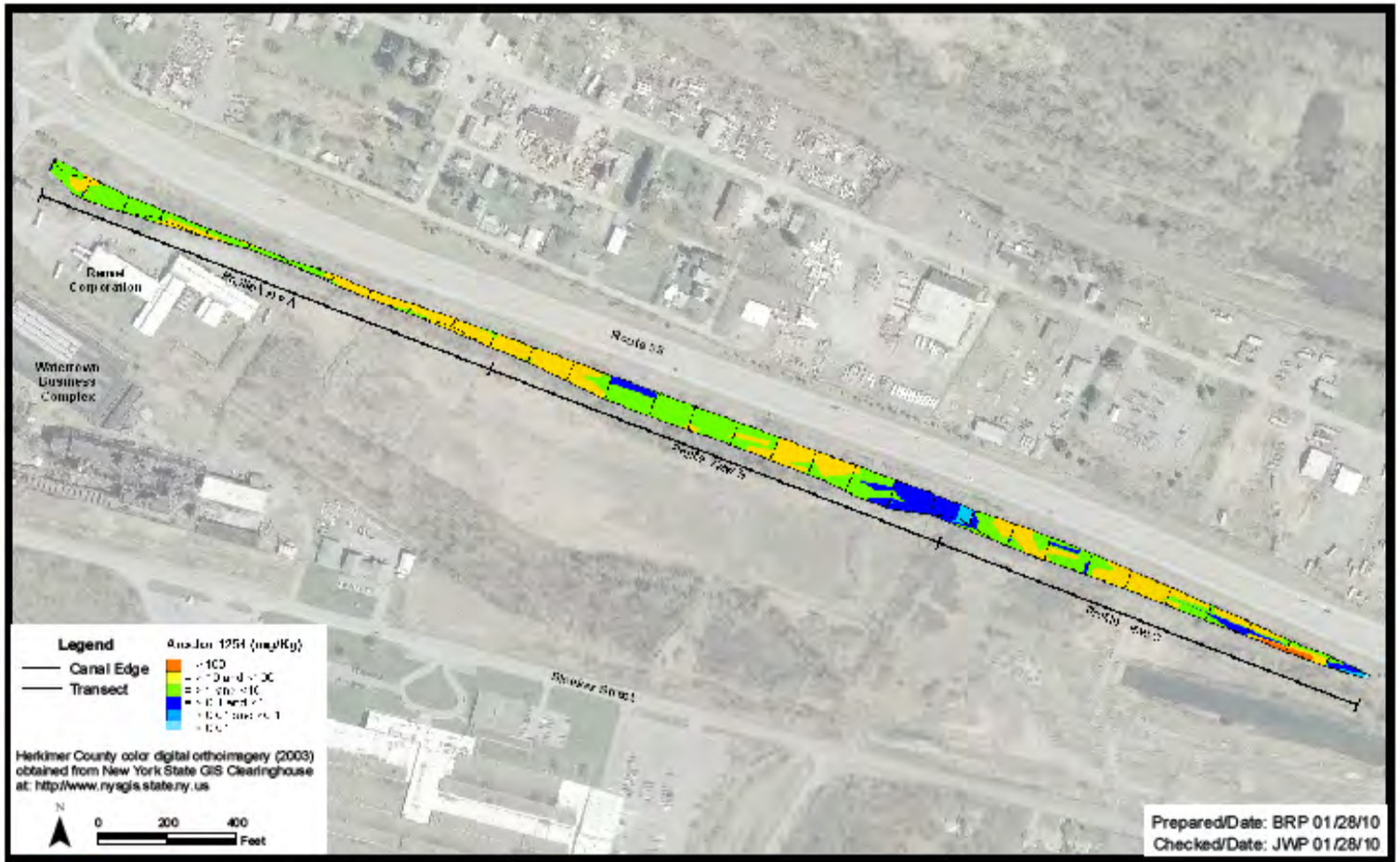


NYSDEC
Erie Canal - Town of Frankfort Section
Site No. 622006
Frankfort, New York

MACTEC

Site Location

Figure 1



NYSDEC
Erie Canal - Town of Frankfort Section
Site No. 622006
Frankfort, New York

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Distribution of
PCB Contaminated Sediments

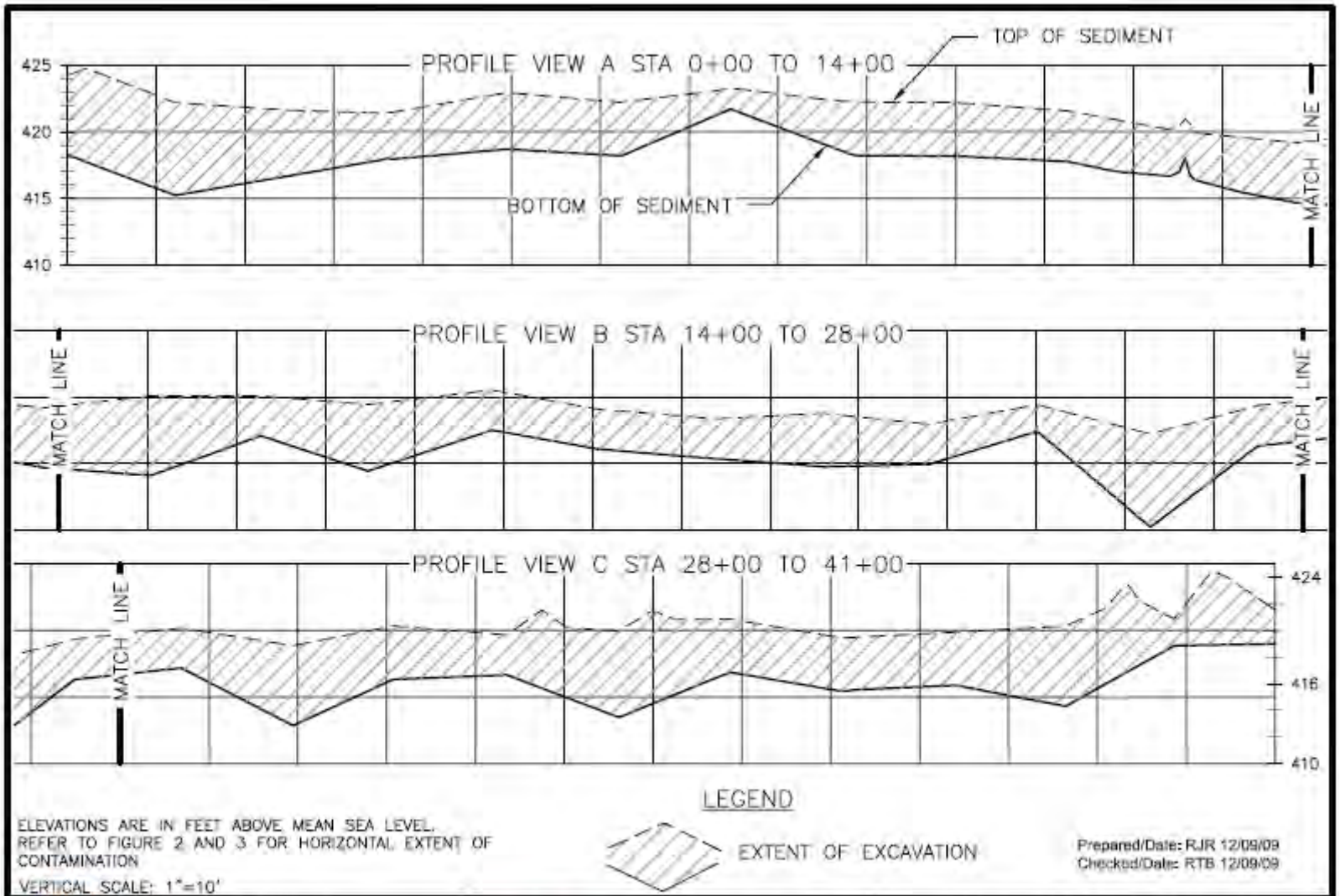
Figure 2

NYSDEC
Erie Canal - Town of Frankfort Section
Site No. 622006
Frankfort, New York

MACTEC

Distribution of
Mercury Contaminated Sediments

Figure 3



ELEVATIONS ARE IN FEET ABOVE MEAN SEA LEVEL.
REFER TO FIGURE 2 AND 3 FOR HORIZONTAL EXTENT OF CONTAMINATION

VERTICAL SCALE: 1"=10'

Prepared/Date: RJR 12/09/09
Checked/Date: RTB 12/09/09

NYSDEC
Erie Canal - Town of Frankfort Section
Site No. 622006
Frankfort, New York

MACTEC

Alternative 4: Extent of Proposed Sediment Excavation

Figure 4

APPENDIX A
Responsiveness Summary

APPENDIX A
RESPONSIVENESS SUMMARY

Erie Canal – Town of Frankfort Section
State Superfund Project
Frankfort, Herkimer County, New York
Site No. 622006

The Proposed Remedial Action Plan (PRAP) for the Erie Canal – Town of Frankfort Section site, 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 16, 2010. The PRAP outlined the remedial measure proposed for the contaminated sediments at the Erie Canal – Town of Frankfort Section site.

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

A public meeting was held on February 24, 2010, which included a presentation of the remedial investigation feasibility study (RI/FS) for the Erie Canal – Town of Frankfort Section site as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 19, 2010.

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

COMMENT 1: What is the expected time line for implementation of this remedy and who will pay for the project?

RESPONSE 1: After the ROD is issued, the Department will contact potential responsible parties (PRPs) and provide them an opportunity to implement the remedy. If an agreement cannot be reached with the PRPs, the Department will evaluate the site for further action under the State Superfund. The PRPs are subject to legal actions by the state for recovery of all response costs the state has incurred. It is anticipated that the evaluation and negotiation with the PRPs will take 6 to 12 months. Following this phase, it would take about12 months to design the project and 12 months to implement. This estimated schedule is tentative and may be subject to change.

COMMENT 2: Is there any continuing contamination entering the canal from upstream?

RESPONSE 2: The Department is not aware of any upstream source of contamination which could impact the canal. If an upstream source of contamination is identified, the Department would take actions to investigation and if necessary remediate the area.

COMMENT 3: What were the PCB's used for?

RESPONSE 3: PCBs were used as high temperature lubricants in transformers, other electrical equipment and hydraulic equipment. PCBs are no longer in use, as their manufacture was banned in 1977.

COMMENT 4: Will there be further investigation down the tributary into the Mohawk River?

RESPONSE 4: Following the remediation, the proposed plan calls for additional downstream sampling of surface water and sediments to develop a post remediation baseline.

COMMENT 5: Should the beavers be relocated? Is living there a hazard to their health?

RESPONSE 5: The relocation of wildlife prior to remediation will be addressed in the remedial design as appropriate. The Department has not attempted to determine specific impacts to the local beaver; however PCBs and metals contamination levels in sediments exceed limits considered protective of ecological resources. However, with the completion of the remediation to pre-disposal conditions and with the natural restoration techniques planned for the post remediated canal, any contaminant impacts to the surrounding wildlife, including beavers, should be eliminated.

COMMENT 6: If the contaminants have been contained for at least the last 25 years, why are we disturbing this site in an industrial area?

RESPONSE 6: The contamination is not contained in the canal. The canal section was identified as a potential source of PCB contamination to the Mohawk River by work conducted by the Department. That work identified low levels of PCBs migrating from the canal to the River. Further, the remedial investigation found that there is a significant source of PCB and metal contamination present in the canal sediment. There is the potential that during severe storm events, resulting in high water flow through the canal, contaminated sediment could be mobilized and carried to the Mohawk River. This stretch of the Mohawk River near the site presently has a fish consumption advisory because of PCBs in fish tissue. See also Response 5.

COMMENT 7: It appears the problem is that there is storm water pipe discharging to the site and potentially causing large volumes of water to flow over the sediments and to the Mohawk River. One of the options listed at the meeting was to do nothing. Instead of digging up the ditch, why not redirect the flow of the storm water pipe away from the site.

RESPONSE 7: The main reason to remediate the canal is to address the current impact to ecological resources. With "No Action", the wildlife presently using the canal and the canal sediment would continue to be impacted. In addition, the present canal section acts as a surface water collection and conveyance system for the upstream drainage basin. Besides protecting the ecological resource, the remedy must provide for the continued use of the canal for storm water management or identify an alternative storm water management approach. Changing the present surface water drainage system in the area would require detailed hydrologic study of the area and coordination with New York State DOT and local officials. It is beyond the scope of this remediation.

A comment letter dated March 19, 2010 was received from Mr. Scott K. Martin of the REMET Corporation, which provided the following comments:

COMMENT 8: REMET Corporation does not consider itself a Potentially Responsible Party (PRP) and does not use the contaminants found in the canal in their operations.

RESPONSE 8: After the ROD is released the Department's Office of General Counsel (OGC) will evaluate the available information to determine which PRPs will be contacted to implement the remedy.

COMMENT 9: The site should not be classified as a Class 2 Site in the New York State Registry of Inactive Hazardous Waste Disposal Sites, due to the lack of a significant threat to human health or the environment.

RESPONSE 9: The site was correctly classified as a Class 2 Site and this has been confirmed by the findings of the remedial investigation. The levels noted in on-site sediments significantly exceed the Department's sediment screening values for the protection of ecological resources for PCBs and inorganics such as mercury. Also see Response 6.

COMMENT 10: The Department should have developed a PCB "hot spot" removal remedy for this site which included capping of areas of lesser contamination.

RESPONSE 10: The shallow sediments (0-3 feet) over the entire site exceed the ecological screening levels for PCBs and the Severe Effects Levels (SEL) for inorganic contaminants such as mercury. The RI results indicate that the PCBs along with the inorganics, notably mercury, present in the sediments are not isolated at discreet locations along the site. Rather elevated PCB and/or mercury levels are present throughout the canal and therefore are not conducive to a "hot-spot" type of remedy.

The Department evaluated two remedies which involved capping, Alternatives 2 and 3. This canal section must continue to provide storm water conveyance to prevent flooding along NYS Route 5S and other properties. Therefore capping, without first excavating shallow sediments, would greatly reduce the ability of the canal section to manage storm water flows. On this basis a capping in-place alone remedy without any excavation was ruled out, as it would result in significant short and long term impacts from flooding and would not be a viable alternative.

COMMENT 11: The selection of the Alternative 4 remedy is not justified.

RESPONSE 11: Based upon the site conditions and a careful evaluation of the remedy selection criteria, the Department considers Alternative 4 to be the most appropriate remedy for the site as set forth in Section 8.1 of the ROD. Alternatives 2 and 3 would leave contamination under an engineered cover system which would require institutional controls (environmental easements) and long term monitoring as well as limiting and severely affecting the drainage flow along the canal. .Alternative 4 requires no institutional controls, no long term monitoring and maintains the canals function as a component of the area-wide storm water management system, while protecting the ecological resources of the area. The incremental cost of Alternative 4 is within an acceptable cost tolerance of the other remedial alternatives evaluated and therefore is cost effective, while also achieving the State Superfund program goal of achieving pre-disposal conditions. Alternative 4 was selected since it is comparable in cost, provides the greatest degree of protection to public health and the environment, achieves SCGs, permanently reduces the toxicity, mobility and volume of contaminants in the eco-system and has fewer long term impacts.

A comment was received in an email dated March 19, 2010 from Mr. Neil M. Gingold, Esq. the attorney for the estate of Mr. James Pyne, former owner of REMET Corporation, which provided the following comment:

COMMENT 12: What is the cost effective value of the selected remedy to protecting only the fish and wildlife at the site. I don’t see any justification for the expenditure of 10-12 million dollars for the limited positive impact it might have on the environment.

RESPONSE 12: The protection of the ecological resources is an important consideration to the remedy selection process. The canal section has been identified as a potential source of PCBs to the Mohawk River. By remediating the site, this potential source would be mitigated and could result in the fish consumption advisory being lifted. Therefore, Alternative 4 was selected since it is protective of the environment and future human health exposures, in a cost-effective manner.

APPENDIX B

Administrative Record

Administrative Record

Erie Canal – Town of Frankfort Section
State Superfund Project
Frankfort, Herkimer County, New York
Site No. 622006

Comment letter was received by Email, from Mr. Scott K. Martin of the REMET Corporation, dated March 19, 2010.

E-mail comment from Mr. Neil Gingold, Esq. on behalf of Mr. James Pyne, former owner of REMET Corporation dated March 19, 2010.

E-mail comment from Mr. Edward Wiehl dated March 8, 2010.

"Proposed Remedial Action Plan for the Erie Canal: Town of Frankfort Section" – New York State Superfund Project, Frankfort, Herkimer County, New York, Site No. 622006, February 2010, prepared by the NYSDEC.

New York State Department of Health, concurrence letter on the PRAP dated February 11, 2010 from Steven M. Bates, Assistant Director to NYSDEC DER Division Director, Dale Desnoyers.

"Final Feasibility Study Report Old Erie Canal Site No. 622006", August 2009, prepared by MACTEC Engineering and Consulting, P.C.

"Final Remedial Investigation Report", Old Erie Canal, May 2008, prepared by MACTEC Engineering and Consulting, P.C.

FOIL Request of February 10, 2006, Old Erie Canal from Turner Street (Oneida County) to Dyke Road, Herkimer County, Foil Request #369, Oneida County Health Department, 2006. February 13, 2006.

Historical Topographic Map Report for Old Erie Canal Site, Turner Street, Utica, NY 13501; November 08, 2004, prepared by Environmental Data Resources.

Superfund Referral Memorandum from Anthony B. Quartararo, Division of Environmental Enforcement to Dale A. Desnoyers, Division of Environmental Remediation, to conduct a Remedial Investigation/Feasibility Study utilizing State Superfund Funs, dated October 28, 2003.

"Additional Investigation Results – Old Erie Canal Site, Utica, NY", June 17, 2003, prepared for the NYSDEC, prepared by Blasland, Bouck and Lee, Inc. on behalf of Niagara Mohawk Power Company.

"Old Erie Site Inspection Prioritization", Report 8003-115, September 20, 1993, prepared by Malcolm Pirnie, Inc.

"Old Erie Canal Phase II Investigation", August, 1986, prepared for Niagara Mohawk Power Corporation, prepared by Calocerinos and Spina Consulting Engineers.

"Preliminary Investigation of the Old Erie Canal Site, Town of Frankfort, Herkimer County, New York, Phase I Summary Report", September, 1984, prepared for the NYSDEC, prepared by Ecological Analysts, Inc.