

RECORD OF DECISION

Operable Unit One
Eighteen Mile Creek Superfund Site
Niagara County, New York



United States Environmental Protection Agency
Region 2
New York, New York
September 2013

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PART 1 DECLARATION**SITE NAME AND LOCATION**

Eighteen Mile Creek Superfund Site
Niagara County, New York

Superfund Site Identification Number: NYN000206456
Operable Unit: 01

STATEMENT OF BASIS AND PURPOSE

This Record of Decision (ROD) documents the U.S. Environmental Protection Agency's (EPA's) selection of a remedy for Operable Unit 1 (OU1) at the Eighteen Mile Creek Superfund Site (Site), in Niagara County, New York, which was chosen in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, 42 U.S.C. §§ 9601-9675 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Part 300. This decision document explains the factual and legal basis for selecting a remedy to address contamination at the Site. The attached index (see Appendix III) identifies the items that comprise the Administrative Record upon which the selected remedy is based.

The New York State Department of Environmental Conservation (NYSDEC) was consulted on the proposed remedy in accordance with CERCLA § 121(f), 42 U.S.C. § 9621(f), and concurs with the selected remedy (see Appendix IV). The EPA consulted with both the Tuscarora and Tonawanda Seneca Nations on the proposed plan for this ROD. Continuing consultation with the Tuscarora Nation indicated that they had no further comments. The EPA will maintain its government-to-government consultation with the Tuscarora and Tonawanda Seneca Nations for all future response actions planned for the Site.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response action selected in this ROD, may present an imminent and substantial endangerment to public health, welfare, or the environment.

DESCRIPTION OF THE SELECTED REMEDY

The selected remedy described in this document actively addresses a discrete portion of the Site involving contaminated soil at nine properties on Water Street in Lockport, New York (the Residential Properties) and conditions at a building at the former Flintkote Company Plant property on Mill Street in Lockport, New York. This is the first of three planned remedial phases, or operable units, for the Site. The EPA anticipates that a second operable unit will address contaminated sediments and soil in other areas of the Eighteen Mile Creek Corridor, which includes a 4,000-foot segment of the Eighteen Mile Creek in Lockport and several adjacent industrial and commercial properties. A third operable unit will address contaminated

sediment in the Eighteen Mile Creek from the north end of the Creek Corridor in Lockport to its location of discharge into Lake Ontario.

The major components of the selected remedy include the following:

- Acquisition of six privately-owned Residential Properties on Water Street in Lockport, New York, permanent relocation of property owners/tenants who reside in five houses on these properties, and demolition of the houses and installation of security fencing around the Properties. This aspect of the selected remedy is conditioned on the successful execution of an agreement with New York State, as required by CERCLA, that includes an assurance that the State is willing to accept transfer of the property interests;
- Excavation of an estimated 5,800 cubic yards of soil contaminated with polychlorinated biphenyls (PCBs) and inorganic contaminants, including lead and chromium from nine Residential Properties (including the six privately-owned properties and three properties owned by the City of Lockport), off-Site disposal of contaminated soil, and backfilling with clean fill. The top six inches of backfill will consist of topsoil that will be planted with native grasses, shrubs, and/or trees. Clean backfill will satisfy soil parameters set forth in 6 NYCRR Part 375-6.7. Soil excavation work will be performed at the time of the cleanup of the sediments in the Creek Corridor to prevent the Creek from recontaminating the Residential Properties;
- Because the Residential Properties are located along a water body, an evaluation will also need to be performed to identify any cultural resource(s) that may exist at the Residential Properties. Initially, this will involve a review of past records or other historic documents related to the Properties. If the evaluation determines that a cultural resource(s) may be present, a field investigation would be performed to confirm the existence of and possibly remove any artifacts of historic value. The cultural resource assessment and investigation will be performed during the design phase of the remedy.
- Demolition of the contaminated, dilapidated building at the former Flintkote Plant property which is located at 300 Mill Street in Lockport, New York. Contaminated demolition debris will be transported off-Site for proper disposal. Noncontaminated debris will be used on-Site as fill material.

If the results from further soil sampling conducted by the EPA indicate that additional properties should be addressed under a future operable unit or response action, then the number of properties requiring soil remediation may increase. Excavation activities associated with soil remediation on these potential additional properties may necessitate temporary relocation of these residents.

The environmental benefits of the selected remedy may be enhanced by consideration, during the design, of technologies and practices that are sustainable in accordance with EPA Region 2's Clean and Green Energy Policy and NYSDEC's Green Remediation Policy¹. This will include

¹ See http://epa.gov/region2/superfund/green_remediation and http://www.dec.ny.gov/docs/remediation_hudson_pdf/der31.pdf.

consideration of green remediation technologies and practices.

DECLARATION OF STATUTORY DETERMINATIONS

The selected remedy meets the requirements for remedial actions set forth in CERCLA Section § 121, 42 U.S.C. § 9621, in that it: 1) is protective of human health; 2) meets a level or standard of control of the hazardous substances, pollutants and contaminants which at least attains the legally applicable or relevant and appropriate requirements under federal and state laws (unless a statutory waiver is justified); 3) is cost-effective; and 4) utilizes permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable. In addition, Section 121 of CERCLA includes a preference for remedies that employ treatment that permanently and significantly reduce the volume, toxicity or mobility of hazardous substances as a principal element (or requires a justification for not satisfying the preference). Treatment is not a principal element of the remedy selected herein because the majority of the excavated soils will not require treatment to meet the requirements of off-Site disposal facilities and, based on the concentration of contaminants in the soil and on building surfaces, treatment of the material prior to off-Site disposal would not be cost-effective. However, some of the contaminated soil may require treatment prior to land disposal at an off-Site facility. Off-site treatment, if required, would reduce the toxicity of the contaminated soil prior to land disposal.

This remedy only addresses a small discrete portion of the Site. Subsequent operable units are planned to identify and address fully the remaining threats posed by the Site, and these actions may include treatment. Ecological risks have not been assessed for this first action but will be assessed as part of the second OU.

Because the selected remedy will not result in hazardous substances remaining on affected properties above health-based levels, a statutory five-year review is not required.

DATA CERTIFICATION CHECKLIST

The following information is included in the Decision Summary section of this ROD. Additional information can be found in the Administrative Record for this Site.

- ✓ Chemicals of concern and their respective concentrations may be found in the “Site Characteristics” section - pages 6-8;
- ✓ Potential adverse effects associated with exposure to Site contaminants may be found in the “Summary of Site Risks” section - pages 9-15;
- ✓ A discussion of cleanup levels for chemicals of concern may be found in the “RAOs” section - page 15-16;
- ✓ A discussion of principle threat waste is contained in the “Principle Threat Waste” section of the ROD - page 28;
- ✓ Current and reasonably anticipated future land use assumptions are presented in the “Current and Potential Future Land and Resources Uses” section - page 8;
- ✓ Estimated capital, operation and maintenance, and total present-worth costs are discussed in the “Description of Alternatives” section - pages 16-21; and,
- ✓ Key factors that led to selecting the remedy (*i.e.*, how the selected remedy provides the best balance of tradeoffs with respect to the balancing and modifying criteria, highlighting criteria key to the decision) may be found in the “Comparative Analysis of

Alternatives” and “Statutory Determinations” sections - pages 21-28 and 30-33, respectively.

AUTHORIZING SIGNATURE

A handwritten signature in black ink, appearing to read "Walter E. Mugdan", written over a horizontal line.

Walter E. Mugdan, Director
Emergency and Remedial Response Division

Sept. 30, 2013
Date

PART 2 DECISION SUMMARY

1. SITE NAME, LOCATION, AND DESCRIPTION

The Eighteen Mile Creek Site (Site) is located in Niagara County, New York and includes contaminated sediments, soil, and groundwater in and Eighteen Mile Creek (Creek).

The headwaters of the Creek consist of an East and West Branch which begin immediately north of the New York State Barge Canal (Canal). Water from the Creek's East Branch originates at the spillway on the south side of the Canal, where it is directed northward underneath the Canal and the Mill Street Bridge through a culvert. Water from the West Branch originates from the dry dock on the north side of the Canal and then flows northward. The East and West Branches converge just south of Clinton Street in Lockport. The Creek flows north for approximately 15 miles and discharges to Lake Ontario in Olcott, New York. A Site location map is provided as Figure 1.

The Creek Corridor consists of a 4,000 foot long section of the Creek and adjacent properties in Lockport, New York. The Creek Corridor includes nine residential properties along Water Street (the Residential Properties) and vacant land to the west, Upson Park to the south, Mill Street to the east, and the former Flintkote Company Plant property (the former Flintkote Plant property) to the north. The topography of the area is relatively flat other than a steep downward slope toward the Creek and the millrace, which bisects the former Flintkote Plant property.

The people of the Tuscarora and the Tonawanda Seneca Nations fish and hunt along the Creek. The Tuscarora Nation reservation is located about 20 miles west of the Creek Corridor, and the Tonawanda Seneca Nation reservation is located about 20 miles southeast of the Creek Corridor.

To address the cleanup of this Site, the EPA has divided the Site into three separate operable units (OUs). OU1, which is the subject of the remedy selected in this ROD, will address contaminated soil at the Residential Properties and will address conditions of a building located on the former Flintkote Plant property (former Flintkote Building). The EPA anticipates that OU2 will address contaminated sediments and soil in other areas of the Creek Corridor and OU3 will address contaminated sediment in the Creek from the north end of the Creek Corridor in Lockport to its location of discharge into Lake Ontario in Olcott, New York.

2. SITE HISTORY AND ENFORCEMENT ACTIVITIES

Eighteen Mile Creek has a long history of industrial use dating back to the 19th century when the Creek was used as a source of power. Sampling indicates the presence of numerous contaminants in Creek sediments, including PCBs, lead, chromium, copper, pesticides/insecticides, dioxins, and furans. Possible sources of this contamination may include releases from hazardous waste sites or contaminated properties, industrial or municipal wastewater discharges, and stormwater and combined sewer overflow discharges.

The former Flintkote Company began operations as a manufacturer of felt and felt products in 1928, when the property was purchased from the Beckman Dawson Roofing Company. In 1935, Flintkote began production of sound-deadening and tufting felt for insulation and use in

automobiles. Manufacturing of this product line continued until December 1971, when operations ceased and the plant closed. The disposal history at the former Flintkote Plant property is largely unknown, although aerial photographs suggest that by 1938 fill was disposed in the section of 300 Mill Street between the Creek and the millrace on an area known as the island. It has also been reported that ash resulting from the burning of debris was dumped at the former Flintkote Plant property.

In 1983, a portion of the former Flintkote Plant property, known as Building A, was listed on NYSDEC's Registry of Inactive Hazardous Waste Sites (Registry). During a New York State Department of Environmental Conservation (NYSDEC) Phase I investigation in 1983, multiple 55-gallon drums were found which contained solid material and PCB transformer oil, however testing of these drums did not reveal the presence of PCBs. In 1984, the former property owner arranged for off-Site disposal of the drums, and the property was removed from NYSDEC's Registry.

In 1989, the City of Lockport's Building Inspection Department reported the presence of multiple drums throughout the buildings at 300 Mill Street. Testing of these drums revealed that they contained hazardous substances. In 1991, NYSDEC disposed of these drums at an off-Site location.

In 2002, the building at 300 Mill Street was also the subject of an EPA removal action. This removal action focused on the removal of friable asbestos-containing materials within the building and debris from the property. The removal action resulted in the off-Site disposal of 170 cubic yards of asbestos-containing debris. Asbestos-containing material still remains in the building; however, most of it is in non-friable form.

The majority of the buildings on the 198 Mill Street portion of the former Flintkote Plant property have been razed, though former basement walls, concrete columns, and concrete floors remain. The building that remains on the 300 Mill Street parcel is constructed of stone, brick, and concrete with wooden or concrete roof deck structures. The remaining structure is severely deteriorated, with the majority of the building having structural deficiencies. There are numerous openings in the floors. The roof systems are partially or completely collapsed, and stairways and hand rails are in poor condition. Currently, the property is secured by a fence that is maintained by Niagara County.

In April 2002, the Niagara County Health Department (NCHD) received a request from a Water Street property owner to evaluate soils on their residential property. The property owner was concerned that elevated PCB concentrations in Creek sediment had the potential to impact their property during flooding events. NCHD conducted an initial inspection of the property owner's yard, and NYSDEC subsequently collected three surface soil samples from the property on April 16, 2002. The results of the sampling analysis revealed that elevated concentrations of PCB and lead were present.

In March 2006, NYSDEC selected a remedy under state law to address contamination at the former Flintkote Plant property which included demolition of the building at 300 Mill Street, excavation and off-Site disposal of contaminated soil and fill, and import of clean backfill over

the excavated areas including the building footprint. In March 2010, NYSDEC selected a second remedy under state law to address areas of contamination in the Creek Corridor, which included the Residential Properties and several other commercial/industrial properties. NYSDEC has not implemented the remedies.

In 2011, NYSDEC requested that the EPA consider the Site for inclusion on its National Priorities List (NPL). In March 2012, the EPA listed the Site on the NPL. Since that time, the EPA has evaluated past data collected by NYSDEC at the Residential Properties to identify human health risks associated with the contaminants at the Site and performed additional sampling to eliminate data gaps. The data were also used in the CERCLA remedy selection process for this OU.

In August 2012, the EPA sent information request letters to eight companies, the City of Lockport, Niagara County the New York Canal Corporation and two private individuals regarding potential activities which may have resulted in contamination in and around the Site including the Residential Properties and the former Flintkote Building. Responses to the letters are being reviewed by the EPA but, as of the date of this action, no potentially responsible parties have been identified for the Site.

In August 2013, the EPA began performing a removal action at the Residential Properties to mitigate the threat to current residents of direct contact with contaminated soil. This removal action consists of placing gravel or clean topsoil with vegetation in areas where residents may come into direct contact with contaminated soil. The EPA will maintain the integrity of the cap until the remedial activities selected in this ROD are implemented.

3. COMMUNITY PARTICIPATION

The level of public interest in the Site is high. As part of the on-going community involvement program, community members and federal government representatives are working to form a community advisory group (CAG) to assist the community in expressing its interests and concerns regarding the Site. The EPA has also arranged to provide any potential CAG with assistance through the Agency's Technical Assistance for Communities Program. The program will provide support to help community members understand the technical and scientific aspects of this remedy and any future response actions for the Site.

On June 6, 2013, the EPA held a general public information session with the local community in Lockport, New York. At the meeting, the EPA explained its plan for addressing the Site in three OUs.

A public notice which announced the release of the EPA's proposed plan for this ROD appeared in the Lockport Union-Sun and Journal on July 26, 2013. The EPA accepted public comments on the proposed plan from July 26, 2013 through August 26, 2013. On August 13, 2013, the EPA held a formal public meeting on the proposed plan for OU1 of the Site. Eighty-six people attended the meeting. Twelve people offered oral comments about the Site and proposed plan. Most of the speakers expressed support for the plan while others provided general comments on the Site. All written and oral comments received in response to the proposed plan for OU 1 are

addressed more detail in Appendix V, which contains the Responsiveness Summary for this ROD. No comments received during the comment period expressed disagreement with the EPA's preferred alternative in the plan, which is consistent with the EPA's selected remedy for OU1.

4. SCOPE AND ROLE OF RESPONSE ACTION

Section 300.5 of the NCP, 40 C.F.R. § 300.5, defines an operable unit as a discrete action that comprises an incremental step toward comprehensively addressing a site's problems. A discrete portion of a remedial response eliminates or mitigates a release, a threat of release, or a pathway of exposure. The cleanup of a site can be divided into a number of OUs, depending on the complexity of the problems associated with the site. At this Site, it is currently anticipated that the cleanup will be addressed in three OUs.

Pursuant to this ROD, the EPA has selected a remedy for OU1 that involves the acquisition of six privately-owned Residential Properties, the relocation of residents from and subsequent demolition of the five houses on these six properties, the excavation and off-Site disposal of contaminated soil from all nine Residential Properties (six privately-owned parcels and three parcels owned by the City of Lockport), and restoration by backfilling with clean fill. The EPA's acquisition of the Residential Properties is conditioned upon the successful execution of an agreement with New York State, as required by CERCLA, that includes an assurance that the State is willing to accept transfer of the property interests. The selected remedy also includes the demolition of the former Flintkote Building at 300 Mill Street. This ROD addresses a discrete portion of the entire Site. Future operable units at the Site will address contamination in other areas of Creek Corridor and in the Creek north of the Creek Corridor to its discharge to Lake Ontario, respectively.

5. SUMMARY OF SITE CHARACTERISTICS

5.1 Overview

The Creek Corridor consists of a 4,000 foot long section of the Creek and adjacent properties in Lockport, New York. The Creek Corridor includes the Residential Properties and vacant land to the west, Upson Park to the south, Mill Street to the east, and the former Flintkote Plant property to the north. The topography of the area is relatively flat other than a steep downward slope toward the Creek and the millrace, which bisects the former Flintkote Plant property.

The Residential Properties, which are a subject of this remedy, encompass an area of approximately 2.25 acres along Water Street. The former Flintkote Plant building, which is also a subject of this remedy, is located at 300 Mill Street in Lockport. These properties are adjacent to the Creek and experience flooding during high water events. Severe flooding of up to 100 feet from the Creek bank reportedly occurs approximately once every two years, with less significant flooding events occurring several times a year as a result of heavy precipitation and blockage of culverts through which the Creek flows under William Street. The entire former Flintkote Plant property occupies approximately six acres and includes parcels at 300, 225, and 198 Mill Street. These parcels are located east and northeast of the Residential Properties on Water Street.

The geology and hydrology of the Residential Properties on Water Street are similar to those of the other portions of the Creek Corridor area. The Creek Corridor has four distinct geologic units. These units, described below in order of increasing depth, are summarized as follows:

- Topsoil described as a brown to dark brown silty soil with varying amounts of natural organic matter (e.g., leaves and rootlets). This unit was often encountered above fill material, but was absent in some areas of the Site. Where encountered, the thickness of the topsoil layer was usually less than 0.2 feet;
- Fill material consisting primarily of various colored ash and cinder material containing glass, coal, coke, slag, buttons, metal, ceramic, rubber and brick. Where encountered, the thickness of the fill material ranged from approximately 1 to 25 feet;
- A glaciolacustrine deposit consisting primarily of mottled, brown to reddish brown, silty clay and clayey silt containing traces of fine grained sand and fine gravel. This deposit directly overlies bedrock, and where encountered, ranged in thickness from 0.1 to more than 28 feet; and
- Light to dark gray dolostone bedrock with interbedded gray clay underlying the southern portion of the Site, and marbleized red and white sandstone underlying the northern portion of the Site. Depth to bedrock at the Site ranged from 1.6 to more than 28 feet, with the greater depths generally associated with the thicker fill areas.

Groundwater underlying the Creek Corridor area occurs in both the soil and fill material above the bedrock (the overburden) and the upper fractured bedrock, and it flows toward the Creek. Saturated conditions were not encountered in the overburden soils at the northern portion of the Site east of Creek and at the southern portion of the Site west of the Creek.

Soil borings collected at the Residential Properties at depths of up to approximately six feet during NYSDEC's investigation indicate the presence of fill material, similar to the type of fill observed in other areas of the Creek Corridor, throughout the Residential Properties.

5.2 Chemicals of Concern

PCBs, lead and chromium are the primary chemicals of concern (COC) addressed in this decision document. Chromium was identified as a COC based on an assumption, in the absence of speciated data, that the chromium found at OU1 is in a valence state of +6, which is more toxic than chromium with a valence state of +3. Because of differences in toxicity between chromium +6 and +3, the valence state of chromium at OU1 will need to be further evaluated during remedial design.

Because of their non-flammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were widely used in many industrial and commercial applications including: electrical, heat transfer, and hydraulic equipment, as plasticizers in paints, plastics, and rubber products, and in pigments, dyes, and carbonless copy paper.

PCBs are a group of chemicals consisting of 209 individual compounds, known as congeners and were sold in mixtures containing dozens of congeners. These commercial mixtures were sold in the U.S. as Aroclors.

Although the U.S. banned the manufacture of PCBs in 1979, the potential for them to be released into the environment remains from poorly maintained hazardous waste sites that contain PCBs, leaks or releases from electrical transformers containing PCBs, and disposal of PCB-containing consumer products into landfills not designed to handle hazardous waste. PCBs may also be released into the environment by the burning of some wastes in municipal and industrial incinerators. PCB contamination at the Residential Properties is likely from the fill material at the properties or was deposited on the properties during flooding events of the Creek.

PCBs are classified by the EPA as probable human carcinogens based on sufficient evidence in animals and suggestive evidence in humans. PCBs are linked to other adverse health effects such as developmental effects, reduced birth weights, and reduced ability to fight infection.

Lead and chromium are metals which occur naturally in the environment, however elevated concentrations are often the result of human activity. Much of the lead and chromium contamination in the surface soil at the Residential Properties seems to be the result of flooding by the Creek, as elevated concentrations of both metals have been identified from the Creek bank towards the homes on Water Street. Contaminated fill at the properties also may be a source of lead and chromium contamination because subsurface sampling has also indicated elevated concentrations.

In addition to the deposition of contaminants from the Creek onto the Residential Properties, fill and soil from the Properties are also contributing sources of PCBs and other contaminants back into the Creek during flood events.

Human receptors have been exposed to these COCs through contaminated fill and soil at the Residential Properties.

5.3 Summary of the EPA and the NYSDEC Sampling Results

Various NYSDEC studies and reports identified below and included in the administrative record for this ROD discuss the nature and extent of soil contamination at the Residential Properties and contamination at the Former Flinkoke Plant property. The EPA conducted additional sampling near the Residential Properties and in the former Flintkote Building, which has been compiled in the July 25, 2013 Supplemental Feasibility Study.

5.3.1 Residential Properties

In July 2002, NYSDEC conducted three separate sampling events in the Creek and at the Residential Properties along Water Street to determine if the Residential Properties were impacted by the former Flintkote Plant property and/or the Creek. Surface soil and sediment samples collected from the Residential Properties, the Creek, and the wooded property south of

the former Flintkote Plant were analyzed for PCBs and lead. The results of these sampling events are presented in a NYSDEC publication entitled “*Sampling Report, Water Street Properties, City of Lockport, Niagara County, New York*” dated March 2003.

In 2005, NYSDEC collected an additional 20 surface soil samples and two subsurface native soil samples from the Residential Properties. These samples were collected to further define the nature and extent of surface soil contamination on the residential properties and were analyzed for PCBs and metals such as arsenic, chromium, copper, lead, and zinc.

In addition, NYSDEC collected 18 subsurface fill samples from the Residential Properties to characterize the fill material observed there. Many of these fill samples contained ash, slag, cinders, coal, brick, and/or glass. The field activities and sampling results are presented in a NYSDEC publication entitled “*Remedial Investigation Report*” dated September 2006.

The concentrations of lead in the samples ranged from 10.7 parts per million (ppm) to 4,630 ppm and varied widely throughout the properties. PCB contamination also ranged widely throughout the Properties, with concentrations from nondetect to approximately 17 ppm. Most of the exceedances were detected at the north end of Water Street and were on the property but near the Creek bank.

Arsenic, copper, chromium, and zinc are present at all of the Residential Properties in varying concentrations. Additionally, some semi-volatile organic compounds (SVOCs) were found at elevated concentrations in subsurface soil samples. This is attributed to SVOCs in the ash, slag, and cinder fill found throughout the Residential Properties and other locations in the Creek Corridor.

The results of NYSDEC’s investigations indicate that the Residential Properties are contaminated by fill material containing PCBs and metals. These properties may also be further contaminated by periodic flooding of the Creek, as contaminated sediment may be deposited on these properties during flood events. In addition, erosion of soil from these properties may be contributing to the contamination of the Creek. In March 2010, following NYSDEC’s study of the Creek Corridor, NYSDEC selected a remedy under state law to address areas of contamination in the Creek Corridor. As noted above, in 2011, NYSDEC requested that the EPA consider the Site for inclusion on the NPL. In March 2012, the EPA included the Eighteen Mile Creek Site on the NPL.

In March 2013, the EPA supplemented the investigations performed by NYSDEC and collected an additional nine surface soil samples primarily in the public right-of-ways along Mill Street and Jackson Avenue. Four soil samples were collected along the western side of Water Street, which were in the backyard of some Jackson Street properties. Analytical results of these four samples did not reveal elevated values of PCBs or metals indicative of Site-related impacts. On Mill Street, five soil samples were collected near the public right-of-way on properties. Analytical results of these five soil samples did not reveal elevated levels of PCBs. However, lead was detected in all five Mill Street soil samples, and two out of the five Mill Street soil samples revealed elevated levels of lead ranging from 420 to 470 ppm. In June 2013, the EPA conducted additional sampling at the two properties with elevated lead levels to evaluate whether

the concentrations are representative of the lead concentrations in soil at these properties. The average concentration of lead in the surface soil at one of the properties exceeded 400 ppm. The EPA is currently evaluating whether this is Site-related and the type of response action appropriate for the property.

5.3.2 Former Flintkote Plant

In 1999, NYSDEC conducted an investigation of the former Flintkote Plant property. The results of the investigation are presented in a September 2000 report entitled “*Site Investigation Report, Former Flintkote Plant Site.*” The investigation revealed that the former Flintkote Plant property received various wastes, refuse, and debris over the years. Much of the waste material was visible at the surface and along the embankments of the Creek, which runs through the Flintkote property, and the millrace. The subsurface investigation revealed that most of the waste material at the former Flintkote Plant property is ash containing glass, coal, coke, slag, ceramic, bottles, brick, buttons, and wood.

In 2003, Niagara County, under NYSDEC’s Environmental Restoration Program, conducted an additional investigation at the former Flintkote Plant property. As part of this study, soil, fill, groundwater, surface water, sediment, and waste samples were collected from the property to characterize the nature and extent of contamination. The sampling revealed the presence of approximately 46,500 cubic yards of ash fill at the property and elevated concentrations of PCBs, metals, and SVOCs including polynuclear aromatic hydrocarbons (PAHs) in the soil and sediment in the building’s basement. Moreover, a trench and sump which extended below the basement floor were found to contain contaminated sediment. The field activities and findings of both the 1999 and 2003 investigations are described in Niagara County’s July 2005 “*Site Investigation Report.*” These investigations, however, did not characterize the soil or determine the extent of suspected contamination beneath the large abandoned former Flintkote building, because the building is dilapidated, unsafe for personnel to enter, and too confining to employ drilling equipment.

In March 2006, NYSDEC selected a remedy under state law for the entire former Flintkote Plant property. To date, that state remedy has not been implemented.

In November 2012, the EPA collected additional samples from the former Flintkote building for waste characterization purposes. The results of the 28 samples collected for asbestos analysis confirmed the presence of asbestos-containing material in pipe insulation, window glazing, and the roof. Samples were also collected from the walls and sediment inside the building, which revealed elevated levels of PAHs, pesticides, and lead. Lead was detected at a maximum concentration of 2,300 ppm from a concrete column in the basement.

6. CURRENT AND POTENTIAL FUTURE LAND AND RESOURCE USES

The Water Street properties are zoned for residential use. Future land use is expected to remain the same. The former Flintkote property at Mill Street is zoned for industrial use and is expected to remain zoned for industrial use.

7. SUMMARY OF SITE RISKS

Based upon the results of the NYSDEC's investigation of the Creek Corridor, which includes the Residential Properties, and the EPA's supplemental feasibility study (Supplemental FS) sampling around the Residential Properties in March and June 2013, a baseline human health risk assessment was conducted for this portion of the Site to estimate the risks associated with current and future site conditions. A baseline human health risk assessment is an analysis of the potential adverse human health effects caused by hazardous substance releases from a site assuming no further actions are taken to control or mitigate exposure to these hazardous substances.

7.1 Human Health Risk Assessment

A Baseline Human Health Risk Assessment (BHHRA) is an analysis of the potential adverse human health effects caused by hazardous substance exposure in the absence of any actions to control or mitigate exposure under current and future land uses. The BHHRA for OU1 at the Site considered exposure to chemicals of potential concern (COPC) at the Residential Properties, which are residentially zoned properties located along the Creek. The assessment assumed there would be no remediation and no institutional controls to prevent exposure to the contaminated soils.

A four-step human health risk assessment process was used for assessing site-related cancer risks and noncancer health hazards. The four-step process is comprised of:

Hazard Identification – this step identifies the COPCs at a site based on several factors such as toxicity, frequency of occurrence, and concentration;

Exposure Assessment – this step estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathways by which humans are potentially exposed (i.e., ingestion and dermal contact with contaminated soil);

Toxicity Assessment – this step identifies the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and

Risk Characterization – this step summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative assessment of site-related risks. During this step, contaminants with concentrations that exceed federal Superfund guidelines for acceptable exposure are identified. These guidelines are 10^{-4} to 10^{-6} , or one-in-ten-thousand to one-in-a-million excess occurrences for cancer, and a Hazard Index (HI) of greater than 1.0 (discussed further below) for noncancer health hazards. Contaminants with concentrations that exceed these guidelines are then considered chemicals of concern (COCs) for a site and are typically those that will require remediation. The uncertainties associated with the risk calculations are also evaluated under this step.

Each of these steps, as applied to the Residential Properties of OU1, is described below.

7.1.1 Hazard Identification

The data the EPA evaluated in conducting the BHHRA was obtained from sampling conducted by NYSDEC in 2002 and 2005.

The chemicals found to be present were screened against residential soil concentrations associated with a risk level of 1×10^{-6} or a chemical specific hazard quotient (HQ) equal to 0.1. All identified human carcinogens were selected as COPCs regardless of risk level. The BHHRA identified a wide range of volatile organic compounds, SVOCs and metals as COPCs.

7.1.2 Exposure Assessment

Table 7-1 identifies the pathways for exposures to OU1 soils. The land use at the Residential Properties and the vicinity is currently zoned as residential. Therefore, the BHHRA focused on current and future risks under a residential scenario. The following potential future use scenarios were evaluated:

- Current/Future Adult/Child Residents: ingestion of, dermal contact with, and inhalation of fugitive dust from soils.
- Construction Workers: ingestion of and dermal contact with OU1 subsurface soils qualitatively assessed because of the lack of data at depths greater than 2 feet where a construction worker may be exposed to contaminated soils.

Exposure Point Concentrations (EPCs) in soils on the nine Residential Properties were estimated using either the maximum detected concentration of a contaminant where less than four distinct values were available, or determined statistically by calculating the upper confidence limit (UCL) of the average concentration. Chronic daily intakes were calculated based on the reasonable maximum exposure (RME), which is the highest exposure reasonably anticipated to occur at the Site. The RME is intended to represent a conservative exposure scenario that is still within the range of possible exposures. Central tendency exposure (CTE) assumptions, which represent typical, average exposures, were also developed. Table 7-2 presents the OU1 COC EPCs that were used, the range of detected concentrations for the COPCs, the frequency of detection, and the statistical method used to determine the EPC. A complete summary of all exposure scenarios can be found in the BHHRA.

Consistent with the residential land use zoning on each property, the BHHRA evaluated cancer risks and noncancer health hazards from exposure to surface soils. The exposure assessment assumed that soil at depths of less than two feet on the individual properties would be accessible to current and future residents. Potential exposure pathways and routes of exposure include incidental ingestion and dermal contact with chemicals in surface soil, and inhalation of fugitive dust. The exposure assumptions assumed residential exposures for a period of 30 years comprised of six years for a child (six years and younger) and 24 years for an adult (18 years and older). The residents were assumed to be exposed to soils for 350 days/year during the 30 year

timeframe. For COPCs with a mutagenic mode of action (MMOA), described further under the Toxicity Assessment section, adjustments were made to the exposure duration to include assumptions for exposures during the ages of 0 to less than 16 years.

7.1.3 Toxicity Assessment

Under current EPA guidelines, the likelihood of carcinogenic risks versus noncancer hazards as a result of exposure to site-related chemicals are considered separately. Consistent with current EPA policy, it was assumed that the toxic effects of the site-related chemicals would be additive.

Thus, cancer risks and noncancer hazards associated with exposures to individual COPCs were summed to indicate the potential cancer risks and noncancer hazards associated with mixtures, respectively.

Toxicity data for the human health risk assessment were provided by the Integrated Risk Information System (IRIS) database, the Provisional Peer Reviewed Toxicity Values, and other sources that are identified as appropriate references for toxicity values consistent with the EPA's directive on toxicity values (OSWER Directive 9285.7-53). The toxicity information and sources are presented in Tables 7-3a and 7-3b (noncancer toxicity data summary) and Tables 7-4a and 7-4b (cancer toxicity data summary). Additional toxicity information for all COPCs is presented in the BHHRA.

Chemicals identified with a MMOA such as PAHs and chromium assumed to have a valence state of +6 were evaluated assuming a child is exposed for up to 16 years, consistent with EPA guidance. In this case, the exposure duration for the adult was assumed to be 14 years which reflects the 30 year total residential period minus 16 years for the child.

7.1.4 Risk Characterization

Quantitative estimates of carcinogenic risks and noncancer hazards were calculated as part of the risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to a potential carcinogen. Noncancer hazards are calculated by comparing an exposure level over a specified time period (e.g., 30 years of residential exposures) with a reference dose derived for a similar exposure period.

To assess the overall noncancer effects posed by more than one contaminant, The EPA has developed the HQ and HI. The HQ is the ratio of the chronic daily intake of a COPC to the noncancer toxicity value (e.g., reference dose) for the chemical. The reference dose, as defined by IRIS, "is an estimate of a daily exposure level for the human population, including sensitive sub-populations, that is thought to be without an appreciable risk of deleterious effects during a lifetime." The HQs are summed for all COPCs within an exposure pathway (e.g., ingestion of soil) and across pathways to determine the HI. When the HI exceeds 1, there may be a concern for potential noncancer health effects if the COPCs in question are believed to cause similar toxic effects.

For carcinogens, risks are generally expressed as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to a potential carcinogen. The excess lifetime cancer risk was determined for each COPC by multiplying the COPC-specific exposure dose by the cancer slope factor for oral or dermal exposures. The resulting cancer risk estimates are expressed in scientific notation as a probability (e.g., an increase in the number of cases of cancer as 1×10^{-6} or one in a million). The risks of individual COPCs are summed for each pathway and each chemical to develop a total risk estimate. An excess lifetime cancer risk of 1×10^{-4} indicates that one additional incidence of cancer may occur in a population of 10,000 people who are exposed under the conditions identified in the exposure assessment. The range of acceptable risk is 10^{-4} to 10^{-6} of an individual developing cancer over a 70-year lifetime from exposure to the COPC(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a RME do not generally require cleanup based upon the carcinogenic risk range established under the NCP.

A summary of the carcinogenic risks and noncancer health hazards associated with the contaminants for each exposure pathway is contained in Tables 5a through 5c.

7.1.5 Summary of Risks to Current/Future Residents

- **Cancer Risks:** The carcinogenic risk calculated for future adult and child residents under RME and CTE conditions were calculated for each of the Residential Properties. The cancer risks are provided in Tables 7-5a through 7-5i for the RME individual and Tables 7-6a through 7-6i for the CTE individual with appropriate designations for individual Properties (i.e., Properties A through I). The cancer risks at Residential Properties C, E, H, and I exceeded the risk range. The total cancer risks on Property C were 1×10^{-3} (one in a thousand) for the RME resident and 2×10^{-4} (two in 10,000) for the CTE individual. The total cancer risks on Property E were 7×10^{-4} (seven in ten thousand) for the RME individual and 1×10^{-4} (one in 10,000) for the CTE individual. The total cancer risks on Property H were 1×10^{-3} (one in 1,000) for the RME individual and 8×10^{-5} (eight in 100,000) for the CTE individual. The total cancer risks on Property I were 7×10^{-4} (seven in 10,000) for the RME individual and 1×10^{-4} (one in 10,000) for the CTE individual. Cancer risks were within the upper bounds of the risk range at two properties. The risks on Property B were 2×10^{-4} (two in 10,000) for the RME individual and the CTE risks were 3×10^{-5} (three in 100,000). The risks at Property F were 2×10^{-4} (two in 10,000) for the RME individual and the CTE risks were 2×10^{-5} (two in 100,000). The cancer risks at the remaining properties were within the acceptable risk range.
- **Noncancer Health Hazards:** The noncancer HI calculated for future adult and child residents under RME and CTE designations are provided in the Table 7-5 series for the RME individual and in Table 7-6 series for the CTE individual with appropriate designations for each of the Residential Properties (i.e., Properties A through I).

For each property the HI was evaluated to determine which chemicals exceed the goal of protection of an HI of 1 and those that were at or below an HI of 1. The analysis found that the following properties had an HI greater than 1 associated with specific chemicals:

- The HI for Property C RME child was 5.4 and for the RME adult was 0.5. The HI for the CTE child was 3 and for the adult was 0.3.
- The HI for Property E RME child was 8 and for the RME adult was 1.0. The HI for the CTE child was 4 and for the adult was 0.4.
- The HI for Property G RME child was 3 and for the RME adult was 0.3. The HI for the CTE child was 1 and for the adult was 0.2.
- The HI for Property H RME child was 9.5 and for the RME adult was 1. The HI for the CTE child was 4 and for the adult was 0.8.
- The HI at Property I for the RME child was 26 and for the adult was 3. The CTE HI for the child was 11 and for the adult was 1.

The HI for the remaining properties for the RME child and adult had an HI of one or lower. Property A had an HI = 1 for the RME child and HI = 0.1 for the RME adult; Property B had an HI = 1 for the RME child and HI = 0.1 for the RME adult; Property D had an HI = 1 for the RME child and an HI = 0.2 for the RME adult; and Property F had an HI = 0.8 for the RME child and an HI = 0.1 for the RME adult.

7.1.6 Lead

Lead is evaluated based on a comparison of the average concentration in soils to a screening level of 400 ppm. The concentration of 400 ppm represents a concentration that is associated with no more than 5% of the population having a blood lead concentration (BPb) greater than 5 ug/deciliter (dl). The screening concentration of 400 ppm was exceeded at the following properties: Properties A (average concentration of 1,088 ppm), B (average concentration of 829 ppm), C (average concentration of 846 ppm), H (average concentration of 782 ppm), and I (average concentration of 741 ppm). The remaining properties had an average concentration of less than 400 ppm.

7.1.7 Summary of Risks to Construction/Utility Workers

A quantitative risk evaluation of exposures to construction/utility workers was not conducted because NYSDEC collected insufficient soil data from depths greater than two feet. Additional data is necessary to conduct such an analysis because it is anticipated that a Site worker could be exposed to soils at depths greater than two feet.

7.1.8 Uncertainties

The procedures and inputs used to assess risks in this evaluation, as in all such assessments, are subject to a variety of uncertainties. The main sources of uncertainty in the BHHRA are described below.

Sampling. Uncertainty in environmental sampling and analysis can arise in part from the potentially uneven distribution of contaminants in the media sampled. The sampling locations may not accurately reflect the range, frequency, and distribution of contaminants at the Site. There are also uncertainties associated with the analytical methods and instruments used in the analysis of the samples. These uncertainties are generally likely to have a low impact on the risk assessment based on procedures for quality assurance of data. The ultimate selection of COCs at the conclusion of the risk assessment process can also lend uncertainty to the risk assessment, but the selection process is generally conservative, so it is unlikely that chemicals that should be COCs are overlooked. Furthermore, in this case, additional samples will be obtained during remedial design, which will provide additional information and certainty about Site conditions, allowing for modifications, if necessary, in the COCs. Because of the anticipated sequence of the remedy and an OU2 remedy in the future, any modifications, if necessary, could be implemented in an efficient manner.

Toxicity. The lack of quantification of cancer risks and noncancer health hazards may result in potential underestimates of cancer risks and noncancer health hazards. The availability and quality of toxicity data affect the ability of experts to derive toxicity criteria as well as the quality/quantity of the toxicity criteria that are derived. Uncertainties in toxicological data occur in extrapolating both from animals to humans and from high to low doses of exposure, as well as from the difficulties in assessing the toxicity of a mixture of chemicals.

At this Site, several chemicals, including thallium and certain PAHs, were not evaluated in the BHHRA based on a lack of toxicity values.

Thallium. Thallium was screened into the analysis as a COPC for several properties (Properties C, E, G, H, and I). However, based on the significant uncertainties associated with the toxicity value, toxicity information on this chemical could not be used in the quantification of risks in the BHHRA. This may result in a potential underestimate of risks.

PAHs. The following PAH chemicals lacked toxicity values: acenaphthylene, benzo(g,h,i)perylene, carbazole, and phenanthrene. The cancer risks and noncancer hazards associated with these chemicals were not quantified. This may result in a potential underestimate of risks.

Chromium. The assessment assumed, because of the absence of any speciated data, that all the chromium concentrations were in the valence state of chromium +6. This assumption may potentially overestimate risks because it is possible that a higher percentage of the concentration of chromium present in soil may exist in the chromium +3 valence state, which is less toxic than +6.

Exposure Point Concentrations and Pathways. Uncertainties can also be associated with the selection of exposure pathways and the estimation of EPCs. For OU1, the calculation of EPCs is based on the calculation of UCLs. The RME assumptions incorporated in the BHHRA are intended to be conservative and may overestimate risk.

These uncertainties are addressed by making conservative assumptions concerning risk and

exposure parameters throughout the assessment. As a result, the risk assessment provides upper bound estimates of the risks to populations at or near the Site and is not likely to underestimate actual risks related to the Site.

More specific information concerning public health risks, including a quantitative evaluation of the degree of risk associated with various exposure pathways is presented in the BHHRA report.

7.1.9 Human Health Risk Assessment Conclusions

The risk drivers at the Residential Properties at OU1 were determined to be PCBs, chromium, and lead. These chemicals were identified as COCs.

Notwithstanding this determination, during remedial design, further evaluation will be conducted to determine whether the type of chromium found at the Residential Properties is in a valence state of +6 or +3. Also, PAHs were identified at Property H above the risk range based on a total of three samples. At two other properties, PAHs were present but the risks from exposures were either at the upper bounds of the risk range or within the risk range of 10^{-4} or 10^{-6} . Based on the limited number of samples, further evaluation of this contaminant will be performed during the remedial design. At Property E, the HI for iron was 1.9, which slightly exceeds the goal of protection of an HI of 1, and further evaluation of background may need to be considered.

7.2 Ecological Risk Assessment

A quantitative ecological risk assessment was not performed for this OU. While certain assumptions can be made regarding the general protectiveness of the selected remedy for ecological receptors, an ecological risk assessment will be performed for subsequent OUs which will evaluate those assumptions and either confirm the protectiveness or result in the selection of a response action in the future that is protective of ecological receptors.

7.3. Basis for Action

The cancer risks, noncancer health hazards, and lead concentrations are above screening levels on the Residential Properties and are above acceptable levels for baseline conditions. Thus, a response action is necessary to protect the public health from actual or threatened releases of hazardous substances into the environment.

8. REMEDIAL ACTION OBJECTIVES

Remedial action objectives (RAOs) are specific goals to protect human health and the environment. These objectives are based on available information and standards, such as applicable or relevant and appropriate requirements (ARARs), to-be-considered (TBC) guidance, and site-specific risk-based levels established using the risk assessments. The following RAOs have been established for the Site to address identified COCs:

1. **Reduce or eliminate exposure (via ingestion and dermal contact) to PCBs and metals in soils at concentrations in excess of the preliminary remediation goals (PRGs). The PRG for PCBs and lead is 1 ppm and 400 ppm, respectively; and**
2. **Reduce or eliminate the potential for migration of contaminants from the Residential Properties to the Creek.**

Although chromium also has been identified as a COC, there exists significant uncertainty regarding its actual valence state in the soil at OU1. During the remedial design, additional sampling will be conducted to speciate the chromium. The EPA is using a risk-based concentration of 2.9 ppm for cleanup decisions for chromium+6, which will be evaluated further in the remedial design.

The EPA has adopted the preliminary remediation goals (PRGs) identified above as the final remediation goals (RGs) for the Site.

The following RAOs for the building at the former Flintkote Plant property will address dangerous conditions:

1. **Prevent exposure to building materials contaminated with COCs;**
2. **Eliminate hazards to future Site workers posed by unstable structures; and**
3. **Remove structural impediments that might interfere with subsurface sampling.**

9. DESCRIPTION OF ALTERNATIVES

Section 121(b)(1) of CERCLA, 42 U.S.C. § 9121(b)(1), requires remedial actions to be protective of human health and the environment, be cost-effective, and utilize permanent solutions and alternative treatment technologies and resource recovery alternatives to the maximum extent practicable. Section 121(b)(1) also establishes a preference for remedial actions which employ, as a principal element, treatment to permanently and significantly reduce the volume, toxicity, and/or mobility of the hazardous substances, pollutants, and contaminants at a site. Further, Section § 121(d) of CERCLA, 42 U.S.C. § 9621(d), specifies that a remedial action must attain a level or standard of control of the hazardous substances, pollutants, and contaminants that at least attains ARARs under federal and state laws, unless a waiver can be justified pursuant to Section 121(d)(4).

Detailed descriptions of the remedial alternatives presented in this ROD to address the former Flintkote Plant Building and the soil contamination at the Residential Properties are provided in the NYDEC's Final Remedial Alternatives Report, dated October 2005, the NYSDEC's Final Feasibility Study (FS) Report, dated September 2009, and the EPA's Supplemental FS, dated July 2013. The construction time provided for each alternative reflects only the time required to construct or implement the remedy and does not include the time required to design the remedy, negotiate the performance of the remedy with a potentially responsible party, or procure contracts for design and construction.

9.1 Description of Remedial Alternatives

9.1.1 Soil Alternatives

Alternative 1: No Action

Capital Cost:	\$0
Operation and Maintenance Costs (present-worth):	\$0
Present-Worth Cost:	\$0
Construction Time:	0 years

The Superfund program requires that the "No Action" alternative be considered as a baseline for comparison with the other alternatives. This alternative does not include any physical remedial measures beyond those response actions already implemented to address the problem of soil contamination at the Residential Properties, including the removal action that the EPA began performing at the Properties in August 2013. The removal action consists of placing gravel or clean topsoil with vegetation in areas where residents may come into direct contact with contaminated soil and maintenance of the soil cap until a remedy is implemented for OU1. The installation and periodic maintenance of this cap is not considered part of this ROD.

Because contaminated soil would be left in place as part of Alternative S1, review of the protectiveness of the OU would be required at least every five years.

Alternative S2a: Capping; Institutional Controls

Capital Cost:	\$1,234,000
Operation and Maintenance Costs (present-worth):	\$163,000
Present-Worth Cost:	\$1,397,000
Construction Time:	Six months to one year

This alternative would provide minimal engineering and institutional controls to prevent exposure to contaminated soils. In addition to the interim cap installed as part of the EPA's removal action at this OU, under this alternative, additional capping at the Residential Properties would be performed to minimize exposure to soil contaminated with PCBs, lead, and other metals. The cap would consist of a demarcation layer and a two foot thick clean soil cover. The soil cover over the embankments near the Creek would also consist of two feet of clean soil cover for added bank stability. The top six inches of the soil cover would consist of topsoil that would be planted with native grasses, shrubs, and/or trees. The areas to be capped for each property would limit exposure to health-based acceptable concentrations of 1 ppm or less for PCBs and 400 ppm or less for lead. The approximate areas requiring capping are shown on Figure 2. During the remedial design, an evaluation would be conducted to determine the impact of raising the grade(s) of the properties as a result of the installation of the cap. Based on this evaluation, some soils may require excavation and off-Site disposal to facilitate the installation of the two foot thick soil cap. Since contaminated soil above acceptable levels would remain on the properties following remediation, institutional controls would need to be implemented and

may include environmental easements/restrictive covenants, deed notices, and/or zoning restrictions to limit future use of the properties.

Institutional controls would be included in the alternative which could require owner/occupant compliance with an approved Site Management Plan that would restrict their full use of the property so as to prevent any disturbance of the soil cover.

Long-term monitoring would be conducted periodically to visually inspect the soil cover. Because contaminated soil would be left in place as part of Alternative S2a, review of the remedy would be required at least every five years.

The on-Site construction activities associated with this alternative are not anticipated to commence for several years because construction activities on the Residential Properties would await the cleanup of the sediments in the Creek Corridor to prevent the Creek from recontaminating the Residential Properties.

This alternative would not address contamination beyond the scope of OU1 which may exist at other commercial properties within the Creek Corridor or in the Creek itself. As noted above, that contamination will be addressed under future operable units.

Alternative S2b: Capping; Institutional Controls; and Permanent Relocation

Capital Cost:	\$2,014,870
Operation and Maintenance Costs (present-worth):	\$163,000
Present-Worth Cost:	\$2,177,870
Construction Time:	1 year
Time for Resident Relocation:	1 year

Alternative S2b includes the remedial measures included in Alternative S2a, but it adds that six of the nine Residential Properties would be acquired, occupants of those Residential Properties would be relocated, and the structures currently on those Properties would be demolished. Concurrent with demolition of the structures, security fencing would be installed to restrict access to the contaminated areas. Relocation of the occupants at those Residential Properties would eliminate their exposure to hazardous substances. This alternative is conditioned on the willingness of NYSDEC to execute an agreement which provides the statutorily mandated assurances regarding, among other things, the State's willingness to accept these acquired Residential Properties in the future.

Because contaminated soil would remain which exceeds levels which would otherwise allow for unrestricted residential use following remediation, institutional controls would need to be implemented and may include environmental easements/restrictive covenants, deed notices, and/or zoning restrictions to limit future use of the properties.

Institutional controls would be included in the alternative which could require any future owners/operators to comply with an approved Site Management Plan that would restrict full use of the property so as to prevent any disturbance of the implemented remedy.

The capital cost of this alternative includes costs associated with demolition and off-Site disposal of the residential homes, excavation and disposal of soils which may be required to install the cap, just compensation to and relocation assistance for the occupants, differential rent to tenants, and other legitimate relocation costs.

Alternative S3a: Excavation; Off-Site Disposal with Treatment

Capital Cost:	\$2,243,000
Present-Worth Cost:	\$2,243,000
Construction Time:	6 months to 1 year

This alternative includes the excavation of an estimated 5,800 cubic yards (cy) of contaminated soil comingled with fill at the Residential Properties, and off-Site disposal at a Resource Conservation and Recovery Act (RCRA) or Toxic Substances Control Act (TSCA) regulated landfill, as appropriate, based on the concentrations of contaminants in the excavated soil and fill. If necessary, to meet the requirements of the disposal facilities, treatment of the soil may be performed. Under this alternative, contaminated soil and fill found at the Residential Properties in excess of the RGs would be excavated for off-Site disposal. Verification samples would be collected following excavation to confirm that all contaminated soil and fill in excess of the RGs has been removed. Once excavation activities have been completed, clean soil would be used as backfill, with the top six inches consisting of topsoil that would be planted with native grasses, shrubs, and/or trees. Clean backfill would meet the requirements for soil as set forth in 6 NYCRR Part 375-6.7. The approximate areas requiring excavation are shown on Figure 3.

The on-Site construction activities associated with this alternative are not anticipated to commence for several years because construction activities on the Residential Properties would await the cleanup of the sediments in the Creek Corridor to prevent the Creek from recontaminating the Residential Properties.

This alternative would not address contamination which may exist at other commercial properties within the Creek Corridor or in the Creek. As noted above, this contamination will be addressed by future operable units.

Alternative S3b: Excavation; Off-Site Disposal with Treatment; and Permanent Relocation

Capital Cost:	\$ 3,023,870
Present-Worth Cost:	\$ 3,023,870
Construction Time:	6 months to 1 year
Time for Resident Relocation:	1 year

Alternative S3b, includes the remedial measures included in Alternative S3a, but it adds that six of the Residential Properties would be acquired, occupants of those Residential Properties would be relocated, and the structures would be demolished. Concurrent with demolition of the structures, security fencing would be installed to restrict access to the contaminated areas. Relocation of the occupants at those Residential Properties would eliminate their exposure to

hazardous substances. This alternative is conditioned on the willingness of NYSDEC to execute an agreement which provides the statutorily mandated assurances regarding, among other things, the State's willingness to accept these acquired Residential Properties in the future.

The capital cost of this alternative includes costs associated with demolition and off-Site disposal of the residential homes, excavation and disposal of soils, just compensation to and relocation assistance for the occupants, differential rent to tenants, and other legitimate relocation costs.

9.1.2 Building Alternatives

Alternative B1: No Action

Estimated Capital Cost:	\$0
Estimated Annual Operation and Maintenance (O&M) Cost:	\$0
Estimated Present-Worth Cost:	\$0
Estimated Construction Timeframe:	0 years

Regulations governing the Superfund program require that the "No Action" alternative be evaluated to establish a baseline for comparison. Under this alternative, the EPA would take no action at the former Flintkote Plant to prevent exposure to the contaminated structure.

Because a contaminated building would be left in place under this alternative, a review of the remedy would be required at least every five years.

Alternative B2: Building Demolition with Off-Site Disposal

Estimated Capital Cost:	\$874,980
Estimated Annual O&M Cost:	\$0
Estimated Present-Worth Cost:	\$874,980
Estimated Construction Timeframe:	6 months

This alternative involves demolition to address the unsafe conditions posed by the remaining building at the former Flintkote Plant, located at 300 Mill Street in Lockport. Contaminated debris would be transported off-Site for proper disposal. Because it is anticipated that the debris would be disposed of off-Site, it is anticipated that there would be no need for institutional controls, no five-year review requirement, and no long-term monitoring requirement in connection with this portion of the response action. However, the contaminants under the building would be evaluated in the future and addressed, if determined to be necessary, pursuant to a subsequent response action.

The demolition of the building would provide access to conduct subsurface sampling through the basement floor to confirm whether a contaminant source area beneath the building exists and to perform the necessary removal of asbestos-containing debris in the basement, including the boiler and associated piping.

Debris designated for off-Site disposal would be subjected to analysis for disposal parameters

and transported off-Site for treatment (as necessary) and disposal in accordance with applicable regulations. During the remedial design, decontamination of contaminated building materials would be considered to reduce the quantity of hazardous waste. Non-contaminated building debris could be crushed, stockpiled and reused on-Site as fill material once contamination at the property is addressed in a future OU.

10. COMPARATIVE ANALYSIS OF ALTERNATIVES

In selecting a remedy for a site, the EPA considers the factors set forth in Section 121 of CERCLA 42 U.S.C. § 9621, and conducts a detailed analysis of the viable remedial alternatives pursuant to Section 300.430(e)(9) of the NCP, 40 C.F.R § 300.430(e)(9), the EPA's *Guidance for Conducting Remedial Investigations and Feasibility Studies*, OSWER Directive 9355.3-01, and the EPA's *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents*, OSWER 9200.1-23.P. The detailed analysis consists of an assessment of the individual alternatives against each of the nine evaluation criteria at 40 C.F.R. § 300.430(e)(9)(iii) and a comparative analysis focusing upon the relative performance of each alternative against those criteria.

A comparative analysis of these alternatives based upon the nine evaluation criteria noted below follows.

Threshold Criteria - *The first two remedy selection criteria are known as "threshold criteria" because they are the minimum requirements that each response measure must meet in order to be eligible for selection as a remedy.*

10.1 Overall Protection of Human Health and the Environment

Overall protection of human health and the environment determines whether an alternative eliminates, reduces, or controls threats to public health and the environment through institutional controls, engineering controls, or treatment.

Soil Alternatives

All of the soil alternatives except Alternative S1 (No Action) would provide adequate protection of human health by either eliminating, reducing, or controlling risk through engineering controls, off-Site disposal/treatment, and/or institutional controls. Alternative S2a (Capping and Institutional Controls) would provide some protection to property owners/occupants from future exposure to contaminated soils through the placement of cover material, and through institutional controls. If Alternative S2a is implemented, contaminated soil and fill, though covered, would remain under the cap on the Residential Properties. Alternative S2b would enhance the protection of residents because they would be relocated from the Site, but visitors or trespassers may be exposed to contaminated soil and fill.

Alternatives S3a and S3b (Excavation) would remove soil and fill with concentrations of contaminants above the RGs and, therefore, both would protect human receptors from contact with contaminants. Alternative S3b is the most protective alternative because it most limits the

residents' exposure to contaminated soil and fill during the period required to investigate, select, and, if necessary implement a final remedy for the Creek Corridor and prevents visitors and trespassers from coming into contact with contaminated soil and fill after excavation.

There would be no long-term local human health impacts associated with off-Site disposal because the contaminants would be removed from the Residential Properties to a secure location. Alternative S3a and S3b would eliminate the actual or potential exposure of residents to contaminated soils and fill following the construction of these alternatives.

Building Alternatives

Alternative B1 (No Action) provides no reduction in risk to human health. Additional migration of contaminants could occur over time under Alternative B1 as a result of disturbance by humans and natural processes. Alternative B2 (Demolition and Off-site Disposal) would remove the building and its associated contaminants and also constitute meaningful progress toward evaluating and, if necessary, implementing future response actions at the Site.

There would be no local human health impacts associated with off-Site disposal because the contaminants would be removed from the Site to a secure location. Alternative B2 would eliminate the actual or potential human exposure to the contaminated structures, eliminate physical hazards to future workers due to the instability of the structure, and provide a necessary, interim step toward addressing overall Site conditions.

10.2 Compliance with ARARs, To be Considered (TBCs) and other Guidance

Section 121 (d) of CERCLA, 42 U.S.C. § 9621(d), and Section 300.430(f)(1)(ii)(B) of the NCP, 40 CFR §300.430(f)(1)(ii)(B), require that remedial actions at CERCLA sites at least attain legally applicable or relevant and appropriate Federal and State requirements, standards, criteria and limitations which are collectively referred to as "ARARs," unless such ARARs are waived under Section 121(d)(4) of CERCLA.

Compliance with ARARs addresses whether a remedy will meet all of the applicable or relevant and appropriate requirements of other Federal and State environmental statutes or provides a basis for invoking a waiver.

Soil Alternatives

New York State has identified its regulation at 6 NYCRR Part 375 for addressing contaminated soil at the Residential Properties.

Alternative S1 (No Action) would not achieve cleanup levels for soil because no measures would be implemented and those contaminants in the soil and fill that exceed the cleanup levels would remain in place and potentially lead to human exposure. Alternatives S2a-b and S3a-b would either cap (and thus isolate) or remove soils exceeding the RGs for the Residential Properties, respectively.

RCRA and TSCA are federal laws that mandate procedures for managing, treating, transporting, storing, and disposing of hazardous wastes and PCBs, respectively. All portions of RCRA that are applicable or relevant and appropriate to the proposed remedy for the Site would be met by Alternatives S1 through S3 and all portions of TSCA would be met by Alternatives S2a-b and S3a-b.

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Relocation Act), which includes implementing regulations and guidance for the government in conducting relocation activities where property is acquired, would be an ARAR for Alternatives S2b and S3b, which propose permanent relocation. The Relocation Act provides for uniform and equitable treatment of persons displaced from their homes by federal programs. All portions of the Relocation Act that are applicable to the proposed action would be satisfied under Alternatives S2b and S3b.

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), a Stage 1A Cultural Resource Investigation would be performed during the design phase of the active alternatives to evaluate the existence of cultural and archaeological resources adjacent to the Creek that could be impacted by implementation of the proposed residential soil remedy.

Building Alternatives

There are no contaminant-specific, location-specific, or action-specific ARARs associated with Alternative B1.

RCRA and the Clean Air Act are federal laws that mandate procedures for managing, treating, transporting, storing, and disposing of hazardous substances including asbestos materials. All portions of RCRA that apply to the building demolition would be met by Alternative B2. An evaluation conducted by NYSDEC for the former Flintkote Plant on Mill Street indicates that the remaining structure is not of historical significance.

Primary Balancing Criteria - *The next five remedy selection criteria, 3 through 7, are known as “primary balancing criteria.” These five criteria are factors with which tradeoffs between response measures are assessed so that the best option will be chosen, given site-specific data and conditions.*

10.3 Long-Term Effectiveness and Permanence

Long-term Effectiveness and Permanence considers the ability of an alternative to maintain protection of human health and the environment over time.

Soil Alternatives

Alternative S1 (No Action) provides no reduction in risk. Alternatives S2a-b would not be as permanent or effective over the long-term as Alternatives S3a-b because bank stabilization measures could be damaged by flooding and would also potentially require periodic maintenance. In contrast, under Alternatives S3a-b, long-term risks would be eliminated because

contaminated soils exceeding the RGs would be permanently removed. Off-site treatment/disposal of the contaminated soil at a secure, permitted hazardous waste facility is reliable because these types of facilities are designed with safeguards to secure the waste material.

Building Alternatives

Alternative B1 (No Action) provides no reduction in risk. Alternative B2 would be more permanent and effective over the long-term than Alternative B1 because no action may not reliably reduce future risks associated with human exposure. Under Alternative B2, long-term risks would be eliminated because the contaminated building would be removed, and efforts to evaluate and perform future response activities would be supported. Off-site disposal of the contaminated building debris at a secure, permitted hazardous waste facility is reliable because the design of such facilities includes safeguards intended to secure the waste material.

10.4 Reduction in Toxicity, Mobility, or Volume Through Treatment

Reduction in Toxicity, Mobility, or Volume of Contaminants through Treatment evaluates an alternative's use of treatment to reduce the harmful effects of principal contaminants, their ability to move in the environment and the amount of contamination present.

Soil Alternatives

Soil Alternative S1 (No Action) would not achieve any reduction in the toxicity, mobility, or volume of contaminated soil and fill because the soil and fill would remain in place. Alternatives S2a-b (Capping and Institutional Controls) would reduce the mobility of and exposure to contaminants through capping, but capping would not reduce the volume or toxicity of contaminants currently at the Site. Alternatives S3a-b (Excavation) would reduce contaminant mobility, volume, and exposure through removal and disposal of the soil and fill at an approved off-Site facility. Furthermore, off-Site treatment, if required, would reduce the toxicity and volume of the contaminated soil and fill prior to land disposal.

Building Alternatives

Building Alternative B1 (No Action) would not achieve any reduction in the toxicity, mobility, or volume of contaminated building material. Alternative B2 (demolition with off-Site disposal) would reduce contaminant mobility through the removal and disposal of the building debris at an approved off-Site facility and support future activities to evaluate and potentially remove an additional contaminant source which is believed to exist under the building. Furthermore, off-Site treatment, if required, would reduce the toxicity and volume of the contaminated building debris at the Site prior to land disposal.

10.5 Short-Term Effectiveness

Short-term Effectiveness considers the length of time needed to implement an alternative and the risks the alternative poses to workers, residents and the environment during implementation.

Soil Alternatives

No short-term adverse impacts to the community would be expected for Alternative S1 (No Action). Minimal impacts to the surrounding community would be expected for Alternatives S2a and S2b since contaminated soils would not be significantly disturbed during the cap construction. The short-term impacts for the owners/occupants of the Residential Properties would be significant under Alternative S2b and Alternative S3b, as the owner/occupants would be relocated to other residences. Alternatives S3a and S3b present a higher short-term risk because of the greater potential for exposure associated with excavation and transportation of contaminated soil and fill.

Alternatives S2a-b and S3a-b would also cause an increase in truck traffic, noise, and potentially dust in the surrounding community, and may cause potential impacts to workers during the performance of construction activities. Alternatives S3a-b may also cause additional exposure to the contaminated soil and fill being excavated and handled. However, proven procedures including engineering controls, personnel protective equipment, and safe work practices would be used to address potential impacts to workers and the community. For example, the work could be scheduled to coincide with normal working hours (e.g., 8 a.m. to 5 p.m. on week days and no work on weekends or holidays). In addition, trucking routes with the least disruption to the surrounding community could be utilized. Appropriate transportation safety measures could be required during the shipping of the contaminated material to the off-Site disposal facility.

No additional human health impacts would be expected from Alternative S1. The risk of release during implementation of Alternatives S3a-b and to a lesser extent for Alternative S2a-b is principally limited to wind-blown soil transport or surface water run-off. Any potential impacts associated with dust and runoff would be minimized with proper installation and implementation of dust and erosion control measures and, for Alternative S3a-b, by performing the excavation and off-Site disposal with appropriate health and safety measures to limit the amount of material that may migrate to a potential receptor.

No time is required for construction of Alternative S1 (No Action). Time required for implementation of Alternatives S2a-b (Capping and Institutional Controls) and S3a-b (Excavation) is estimated to take six months to one year, beginning after a decision is made (and if necessary, implemented) regarding a remedy for the Creek Corridor sediments OU.

Building Alternatives

No short-term adverse impacts to the community would be expected for Alternative B1 (No Action). Alternative B2 would pose a short-term impact, as the demolition of the building would cause an increase in truck traffic, noise, and potentially dust in the surrounding community, as well as cause potential impacts to workers during the performance of the demolition work. These potential impacts to the community (e.g., wind-blown dust transport and surface water runoff) could be created through deconstruction activities (demolition) and exposure to the contaminated building being demolished and handled. However, potential human health impacts associated with dust and runoff could be minimized with proper installation and implementation of dust and

erosion control measures and by performing decontamination and demolition with appropriate health and safety measures to limit the amount of material that may migrate to a potential receptor. There are proven procedures including engineering controls, personnel protective equipment, and safe work practices which could be used to mitigate potential impacts to workers and the community. The time required for implementation of Alternative B2 is estimated to be six months.

10.6 Implementability

Implementability addresses the technical and administrative feasibility of a remedy from design through construction and operation. Factors such as availability of services and materials, administrative feasibility, and coordination with other governmental entities are also considered.

Soil Alternatives

All technical components of Alternatives S2a-b and S3a-b would be easily implemented using conventional construction equipment and materials. The personnel who would operate the heavy equipment would be required to obtain appropriate Occupational Safety and Health Administration certifications (e.g., hazardous waste worker), in addition to being certified in the operation of the heavy equipment. Such personnel are readily available. Off-Site hazardous and nonhazardous treatment/disposal facilities for the disposal of the contaminated soils are available.

It is uncertain whether, under Alternatives S2a and S3a, the remaining residential structures on the properties would pose an impediment to the construction activities. Engineering methods to address these concerns, such as lifting, moving, or securing the structures, may be technically unfeasible or cost-prohibitive considering the construction methods and condition of some of the structures.

Building Alternatives

No technical implementability concerns exist for the building alternatives. The technical components of Alternative B2 would be easily implemented using conventional construction equipment and materials. Off-Site hazardous and nonhazardous treatment/disposal facilities for the disposal of the contaminated building debris are available.

10.7 Cost

Cost includes estimated capital and annual operation and maintenance costs, as well as present worth cost. Present worth cost is the total cost of an alternative over time in terms of today's dollar value. Cost estimates are expected to be accurate within a range of +50 to -30 percent. (This is a standard assumption in accordance with EPA guidance.)

Soil Alternatives

The estimated capital cost, operation and maintenance (O&M), and present worth costs are

discussed in detail in the EPA's Supplemental FS. The cost estimates are based on the best available information. Alternative S1 (No Action) has no cost because no activities are implemented. The present worth cost for Alternatives S2a-b and S3a-b are provided below. The estimated capital, O&M present-worth cost over a thirty year period, and total present-worth costs for each of the alternatives are as follows:

Alternative	Capital Cost	Present Worth O&M Cost	Present Worth Cost
1	\$0	\$0	\$0
2a	\$1,234,000	\$163,000	\$1,397,000
2b	\$2,014,870	\$163,000	\$2,177,870
3a	\$2,243,000	\$0	\$2,243,000
3b	\$3,023,870	\$0	\$3,023,870

Building Alternatives

No cost would be associated with Alternative B1. The estimated capital cost for Alternative B2, demolition of the former Flintkote Plant Building, is \$874,980.

Modifying Criteria - The final two remedy selection criteria, 8 and 9, are called "modifying criteria" because new information or comments from the state or the community on the Proposed Plan may modify the preferred response measure or cause another response measure to be considered.

10.8 State/Support Agency Acceptance

State/Support Agency acceptance considers whether the State and/or Support Agency agrees with the EPA's analyses and recommendations.

10.8.1 State Acceptance

NYSDEC concurs with the selected remedy. A letter of concurrence is attached in Appendix IV.

10.8.2 Tribal Acceptance

The EPA consulted with both the Tuscarora and Tonawanda Seneca Nations on the proposed plan for this ROD. Continuing consultation with the Tuscarora Nation indicated that they had no further comments. The EPA will maintain its government-to-government consultation with the Tuscarora and Tonawanda Seneca Nations for all future response actions planned for the Site.

10.9 Community Acceptance

Community Acceptance considers whether the local community agrees with the EPA's analyses and preferred alternative. Comments received on the Proposed Plan are an important indicator of community acceptance.

On August 13, 2013, the EPA held a formal public meeting on the proposed plan for this OU. Eighty-six people attended the meeting. Twelve people offered oral comments on the Site and the proposed plan. Most of the speakers and all of the written comments which the EPA received expressed support for the plan, while the others provided general comments about the Site. All written and oral comments are addressed in more detail in Appendix V, which is the Responsiveness Summary for this ROD. No comments received during the comment period for the proposed plan expressed disagreement with the EPA's preferred alternative for this OU at the Site.

11. PRINCIPAL THREAT WASTES

The NCP establishes an expectation that the EPA will use treatment to address the principal threats posed by a site wherever practicable (40 CFR §300.430(a)(1)(iii)(A)). Identifying principal threat wastes combines concepts of both hazard and risk. In general, principal threat wastes are those source materials considered to be highly toxic or highly mobile which generally cannot be contained in a reliable manner or would present a significant risk to human health or the environment should exposure occur. Non-principal threat wastes are those source materials that generally can be reliably contained and that would present only a low risk in the event of exposure.

No principal threat wastes have been identified for this discrete portion of the Site, identified as OU1.

12. SELECTED REMEDY

Based upon the requirements of CERCLA, the results of the Site investigations, the detailed analysis of the alternatives, and public comments, the EPA's selected remedy to address contaminated soil at the Residential Properties is Alternative S3b, Excavation and Relocation and the selected remedy for the Flintkote Building is Alternative B2, Building Demolition with Off-Site Disposal. These alternatives include the following components:

- Acquisition of six privately-owned Residential Properties on Water Street in Lockport, New York, permanent relocation of property owners/tenants who reside in the five houses at these properties, demolition of the houses and installation of security fencing around the Properties. This aspect of the selected remedy is conditioned on the successful execution of an agreement with New York State, as required by CERCLA, that includes an assurance that the State is willing to accept transfer of the property interests;
- Excavation of an estimated 5,800 cy of soil contaminated with PCBs and inorganic contaminants, including lead and chromium, from nine Residential Properties (including the six privately-owned properties and three properties owned by the City of Lockport), off-Site disposal of contaminated soil, and backfilling with clean fill. The top six inches of backfill will consist of topsoil that will be planted with native grasses, shrubs, and/or trees. Clean backfill will satisfy soil parameters set forth in 6 NYCRR Part 375-6.7. Soil excavation work will be performed at the time of the cleanup of the sediments in the

Creek Corridor to prevent the Creek from recontaminating the Residential Properties;

- Because the Residential Properties are located along a water body, an evaluation will also need to be performed to identify any cultural resource(s) that may exist at the Residential Properties. Initially, this will involve a review of past records or other historic documents related to the Properties. If the evaluation determines that a cultural resource(s) may be present, a field investigation would be performed to confirm the existence of and possibly remove any artifacts of historic value. The cultural resource assessment and investigation will be performed during the design phase of the remedy.
- Demolition of the contaminated, dilapidated building at the former Flintkote Plant property which is located at 300 Mill Street in Lockport, New York. Contaminated demolition debris will be transported off-Site for proper disposal. Noncontaminated debris will be used on-Site as fill material.

If the results from further soil sampling conducted by the EPA indicate that additional properties should be addressed under a future operable unit or response action, then the number of properties requiring soil remediation may increase. Excavation activities associated with soil remediation on these potential additional properties may necessitate temporary relocation of these residents.

The environmental benefits of the selected remedy may be enhanced by consideration, during the design, of technologies and practices that are sustainable in accordance with EPA Region 2's Clean and Green Energy Policy and NYSDEC's Green Remediation Policy.² This will include consideration of green remediation technologies and practices.

The total estimated present-worth cost for the selected remedy is \$3,898,850. A breakdown of the costs is as follows: the capital cost for excavating the soil at the Residential Properties is \$2,243,000; the capital cost of relocating the residents is \$438,325; the capital cost of demolishing the homes is \$342,545; and the capital cost of demolishing the former Flintkote building is \$874,980. A more detailed, itemized list of costs for the selected remedy may be found in Table 3b of the Supplemental FS report. The cost estimates, which are based on available information, are order-of magnitude engineering cost estimates that are expected to be within +50 to -30 percent of the actual cost of the project.

Expected Outcomes of the Selected Remedy

Implementation of Alternative S3b will eliminate potential pathways of human exposure to contaminated soils present at the Residential Properties and will eliminate the properties as a source of contamination to the Creek. Acquisition of the six properties will also facilitate investigations during future OUs in this area, and the Properties also could be used as a staging area for future response work at the Site. The demolition of the Flintkote building would remove the building and contamination within the building, thereby removing potential chemical and physical hazards posed by the building. Removal of the building will remove the unsafe

² See http://epa.gov/region2/superfund/green_remediation and http://www.dec.ny.gov/docs/remediation_hudson_pdf/der31.pdf.

conditions posed by the building and will constitute meaningful progress toward evaluating suspected contaminant sources and, if determined to be necessary, help effectuate future response actions at the Site, as the nature and extent of contamination beneath the building will need to be investigated.

12.1 Summary of the Rationale for the Selected Remedy

The selection of the remedy is accomplished through the evaluation of the nine criteria as specified in the NCP. The EPA has selected Alternative S3b and Alternative B2 as the OU1 remedy because of their protectiveness, permanence, and short-term effectiveness.

Although soil Alternatives S2a and S2b would provide some protection from the migration of and exposure to contaminated soils through the placement of cover material, contaminated soil and fill would remain in place requiring the implementation of institutional controls on the Residential Properties and long-term monitoring and maintenance of the soil covers. The EPA has begun to implement a removal action at the Residential Properties that includes a temporary soil cover to mitigate residents' exposure to the soil contamination. Alternative S3b will permanently remove the contaminated soil and will relocate the affected residents. Permanent relocation will address the uncertainty as to whether the soil cleanup could be performed effectively without the prior demolition of the residential structures. Because of the potential for flooding to re-contaminate the soils, engineering methods such as capping prove not to be cost-effective when compared to other alternatives that are more protective of human health. Alternative S3b will also be implemented in a phased manner to prevent recontamination of the Residential Properties as a result of flooding which could occur if the Creek contamination is addressed after the Residential Properties. As such, the EPA will initially move forward with the relocation of the affected residents, thereby eliminating the risk to the residents in the short and long term. Alternative B2 will permanently eliminate potential human exposure to the former Flintkote Plant Building which contains asbestos material, PAH residues, and metals, and provide necessary access to a portion of the Site which will be further evaluated and, if necessary, addressed in the future under a subsequent OU. The implementation of this selected remedy will employ engineering controls and safe work practices to mitigate exposure to dust and to protect workers and the local community.

12.2 Summary of the Estimated Remedy Costs

The total estimated capital and total present-worth costs for the Residential Properties and the former Flintkote building portions of the selected remedy are \$3,023,870 and \$874,980, respectively. The costs estimates are based on available information and are order-of-magnitude engineering cost estimates that are expected between +50 to -30 percent of the actual project cost. Changes to the cost estimates can occur as a result of new information and data collected during the design of the remedy. Individual cost estimates for each remedial alternative are provided in the Supplemental FS.

13. STATUTORY DETERMINATIONS

The EPA and the State of New York determine that the selected remedy complies with the

CERCLA and NCP provisions for remedy selection, meets the threshold criteria, and provides the best balance of tradeoffs among the alternatives with respect to the balancing and modifying criteria. These provisions require the selection of remedies that are protective of human health and the environment, comply with ARARs (or justify a waiver from such requirements), are cost effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. In addition, CERCLA includes a preference for remedies that employ treatment that permanently and significantly reduce the volume, toxicity, or mobility of hazardous substances as a principal element (or justify not satisfying the preference). For the Eighteen Mile Creek Site, the EPA does not believe that on-Site treatment of the soils at the Residential Properties or demolition debris from the former Flintkote Building is practicable or cost effective. The selected remedy will be more protective and cost effective in the long-term than capping since soil excavation is a permanent solution which will allow the Residential Properties to be returned to their beneficial re-use and does not require periodic maintenance. Permanent relocation will also address the uncertainty as to whether the soil cleanup could be performed effectively without the prior demolition of the residential structures. The following sections discuss how the selected remedy meets these statutory requirements.

13.1 Protection of Human Health and the Environment

Soils

The selected soil remedy is protective of human health. Risk to residents at the Residential Properties will be eliminated through the combination of relocation of the affected residents and excavation and off-Site disposal of the contaminated soil and fill. Until such time as the Creek sediments are addressed, flood events could continue to deposit contamination on these Properties, so it would not be practical to remediate the soils at these properties until the Creek sediments are addressed. Therefore, the selected remedy at the Residential Properties will be implemented in a phased manner. First, affected residents will be permanently relocated, thereby eliminating risk to the residents in the short term during the period required to investigate, propose, select, and, if necessary, implement a final remedy for the Creek Corridor. The houses will be demolished and security fencing will also be installed to limit visitors and trespassers from coming into contact with contaminated soil and fill during this period. The subsequent excavation of contaminated soils under this ROD will be coordinated after a determination is made regarding the need for a Creek sediment remedy. The remedy selected in this ROD will remove all significant direct contact and ingestion risks to human health associated with contaminated soil and fill at the Residential Properties. The selected remedy, by removing the contaminated soils, will eliminate a source of contamination to the Creek.

As noted above, additional Residential Properties in the vicinity of Water Street and Mill Street may require remediation. Because the Mill Street and the additional Water Street properties are not subject to flooding, but may have Site-related contaminants in the soils similar to the Residential Properties these properties will be evaluated for future response action.

Building

The selected building remedy for the former Flintkote Building is protective of human health because it will result in removal of the building and its associated contaminants, remove the

physical hazards to future workers posed by the unstable building, will constitute meaningful progress toward evaluating suspected contaminant sources and, if determined to be necessary, help effectuate future response actions at the Site. There will be no local human health impacts associated with off-Site disposal because the contaminants will be removed from the Site to a secure location.

13.2 Compliance with ARARs, TBCs, and Guidance

The selected remedy complies with chemical-specific, location-specific and action-specific ARARs. A complete list of the ARARs, TBCs and other guidance that concern the selected remedy is presented in Table 13-1 (chemical-specific), Table 13-2 (location-specific) and Table 13-3 (action-specific), which can be found in Appendix II.

13.3 Cost Effectiveness

The EPA has determined that the selected remedy is cost-effective and represents reasonable value for the money to be spent. A cost-effective remedy is one whose costs are proportional to its overall effectiveness (NCP § 300.4309f)(1)(ii)(D)). The EPA evaluated the “overall effectiveness” of those alternatives that satisfied the threshold criteria (i.e. were both protective of human health and ARAR-compliant). Overall effectiveness is based on the evaluations of long-term effectiveness and permanence; reduction in toxicity, mobility, and volume through treatment; and short-term effectiveness. Overall effectiveness was then compared to costs to determine cost-effectiveness.

Soils

Each of the soil alternatives were subjected to a detailed cost analysis. In that analysis, capital and annual O&M costs were estimated and used to develop present-worth costs. For Alternatives 2a and 2b, in the present-worth cost analysis, annual O&M costs were calculated for the estimated life of the alternatives. The estimated present worth cost of the selected soil remedy for OU1 is \$3,023,870. Although Alternatives S2a, S2b and S3a are less expensive than the selected remedy, the EPA concluded that the long-term effectiveness of excavation is superior to capping when considering permanent solutions that allow the Residential Properties to be returned to beneficial re-use. Furthermore, the EPA concluded that permanent relocation would address the uncertainty as to whether the soil cleanup could be performed effectively without the prior demolition of the residential structures. The EPA believes that the selected remedy’s additional cost for permanent relocation and excavation provides protection of human health and is cost-effective. The selected remedy is cost-effective as it has been determined to provide the greatest overall protectiveness for its present-worth cost.

Building

The estimated capital cost for the selected former Flintkote Building remedy is \$874,980. There are no O&M costs associated with the selected former Flintkote Building remedy.

13.4 Utilization of Permanent Solutions and Alternative Treatment (or Resource

Recovery) Technologies to Maximum Extent Practicable

The EPA has determined that the selected remedy represents the maximum extent to which permanent solutions and treatment technologies can be utilized in a practicable manner for this OU. Of those alternatives that are protective of human health and the environment and comply with ARARs (or provide a basis for invoking an ARAR waiver), the EPA has determined that the selected remedy provides the best balance of trade-offs in terms of the five balancing criteria, while also considering the statutory preference for treatment as a principal element, the bias against off-Site disposal without treatment, and State/support agency and community acceptance. Implementation of the selected remedy will eliminate current residents' exposure to contaminants at the Residential Properties and will remove contaminated soil from the Residential Properties thereby eliminating the risk to human receptors in the future. Demolition of the former Flintkote Building will eliminate long-term risks posed by the building because contaminated building material will be removed and will facilitate efforts to evaluate future response activities at the former Flintkote Plant property.

13.5 Preference for Treatment as a Principal Element

The selected soil remedy results in the removal of approximately 5,800 cy of contaminated soil from the Residential Properties at the Site. The soil excavation will provide for an immediate reduction in the mobility of soil contaminated with PCBs and inorganic contaminants, including lead and chromium from the Residential Properties. To the extent practicable, the construction and demolition debris resulting from the former Flintkote Building that is determined to be nonhazardous will be used as fill on-Site at the former Flintkote property. The remaining contaminated building debris will be disposed of at an approved off-Site facility, thereby reducing contaminant mobility. Although treatment is not a principal element of the remedy, based on sampling performed to date, some of the contaminated soil may require treatment prior to land disposal at an off-Site facility. However, the majority of the excavated soils will not require treatment to meet the requirements of off-Site disposal facilities. Off-site treatment, if required, would reduce the toxicity of the contaminated soil prior to land disposal. Based on the concentration of contaminants in the soil and on building surfaces, treatment of the material prior to off-Site disposal would not be cost-effective. This remedy only addresses a small discrete portion of the Site. Subsequent actions that are planned to identify and address fully the remaining threats posed by the Site may include treatment.

13.6 Five-Year Review Requirements

Because this remedy will not result in hazardous substances, pollutants, or contaminants remaining at this OU above health-based levels, the statutory requirement for a five-year review is not triggered by the implementation of this action.

14. DOCUMENTATION OF SIGNIFICANT CHANGES

The Proposed Plan for OU1 of the Eighteen Mike Creek Site was released in July 2013. The Proposed Plan identified Soil Alternative S3b and Building Alternative B2 as the preferred alternatives for OU1 at the Site. Alternative S3b includes acquisition of six privately-owned

Residential Properties on Water Street in Lockport, New York, permanent relocation of those property owners/tenants who reside at these properties, demolition of the houses, excavation of contaminated soil and fill, off-Site disposal of contaminated soil and fill, and the use of clean soil to backfill the excavated areas. Building Alternative B2 includes demolition of the contaminated, dilapidated building at the former Flintkote Plant which is located at 300 Mill Street in Lockport, New York. The EPA reviewed all written (including electronic formats such as e-mail) and oral comments submitted during the public comment period and has determined that no significant changes to the remedy, as originally identified in the Proposed Plan, are necessary or appropriate.

Appendix I

Figures

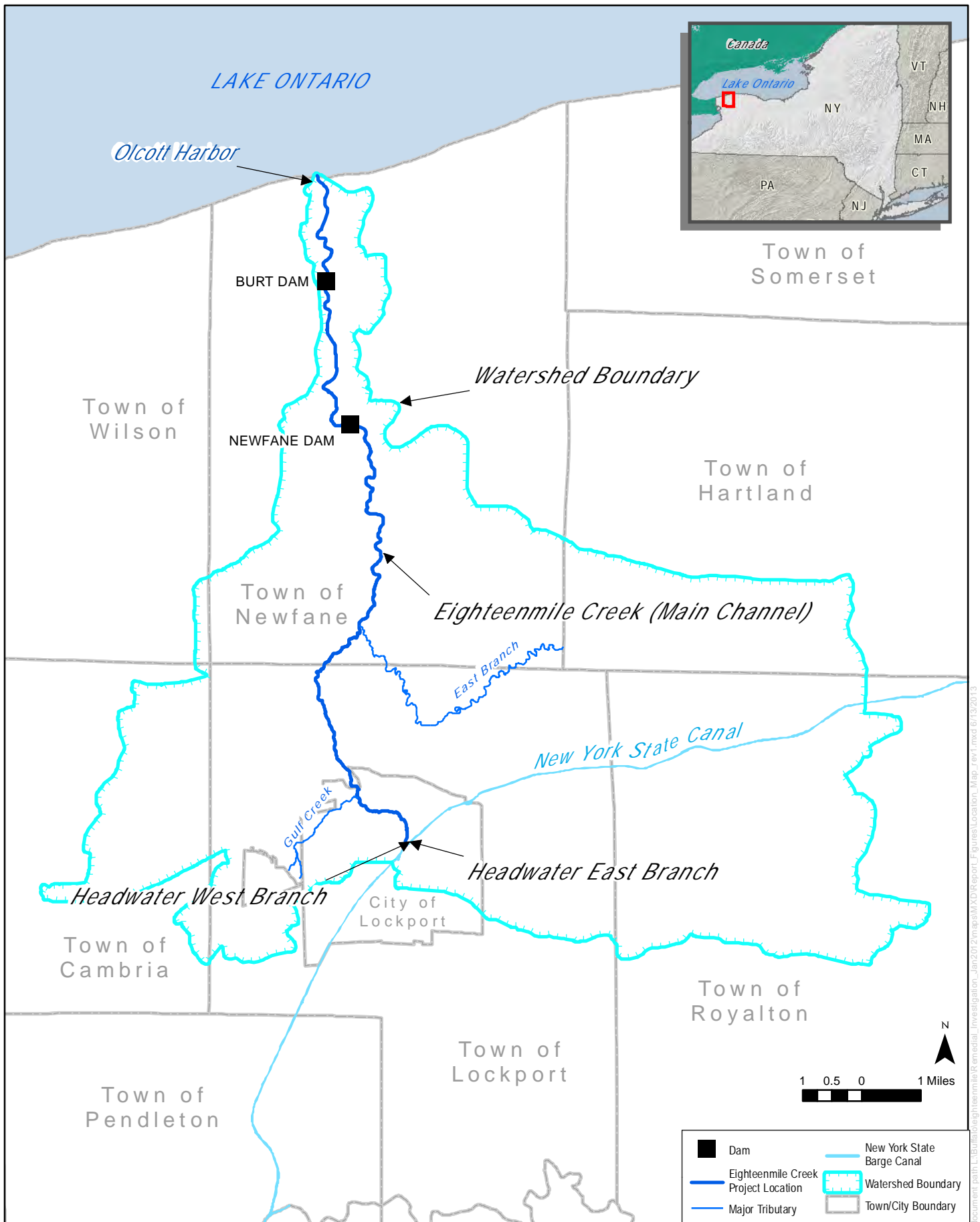


Figure 1 Eighteen Mile Creek Site Location

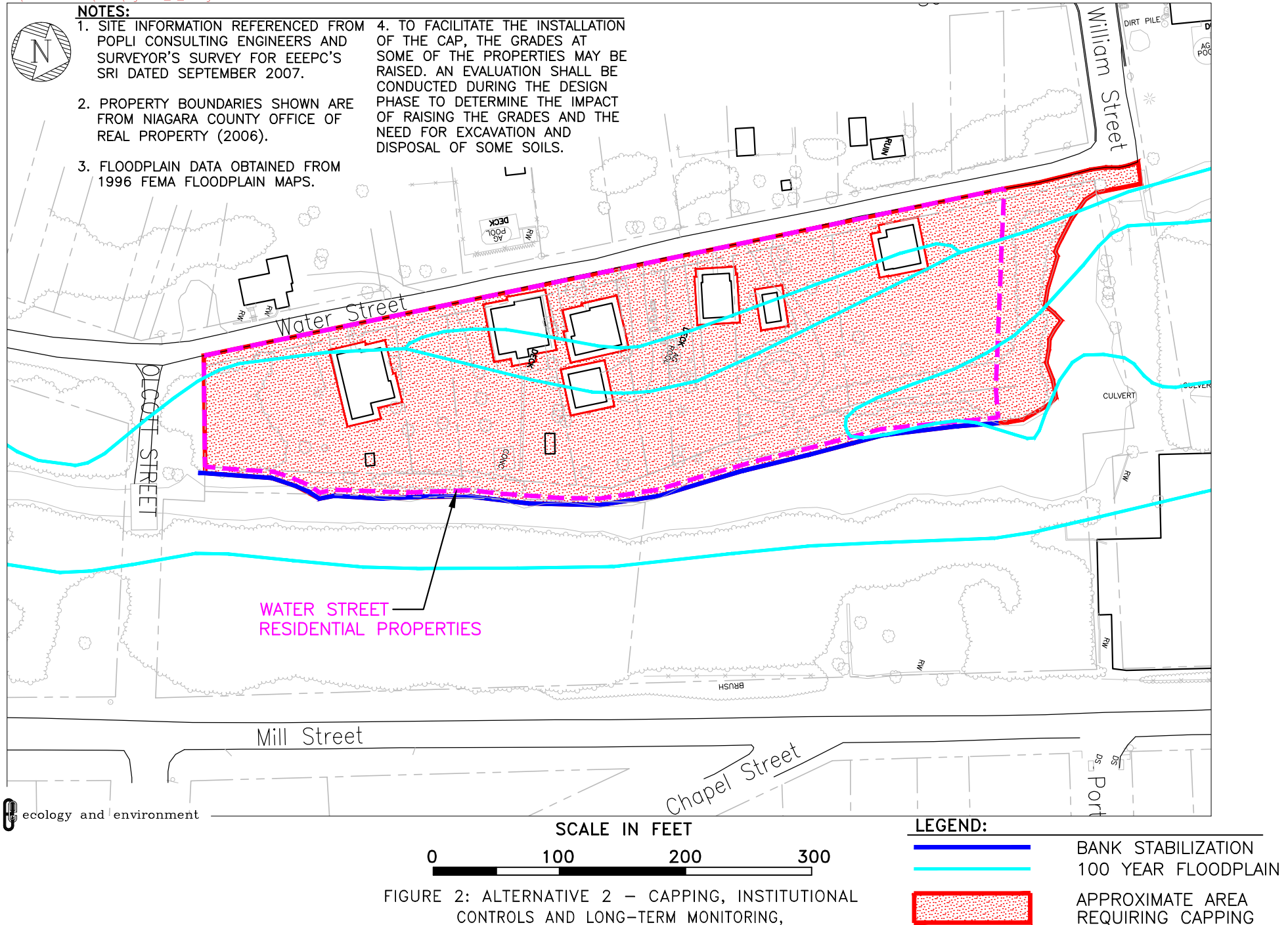
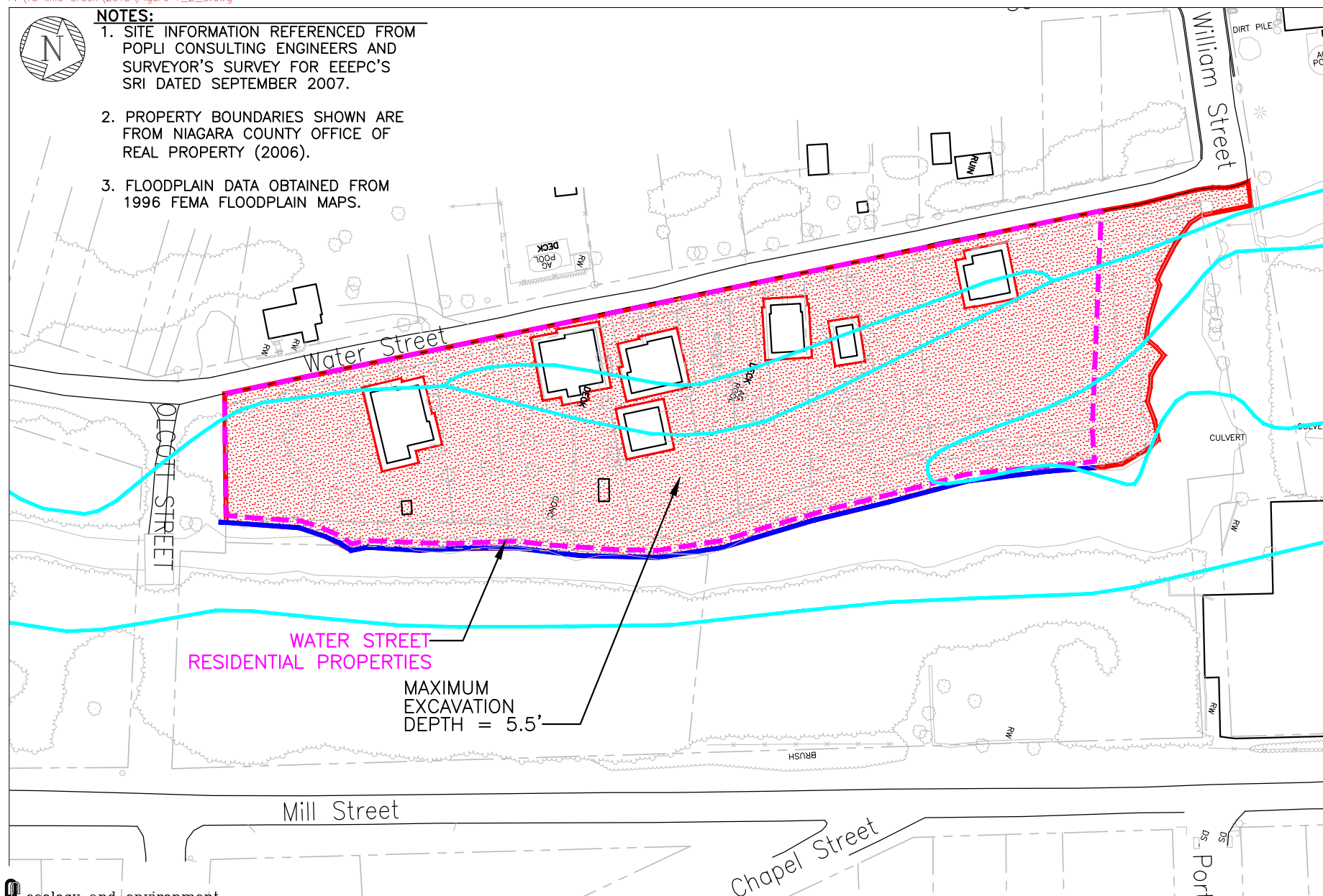


FIGURE 2: ALTERNATIVE 2 – CAPPING, INSTITUTIONAL CONTROLS AND LONG-TERM MONITORING, EIGHTEENMILE CREEK CORRIDOR SITE, LOCKPORT, NEW YORK



NOTES:

1. SITE INFORMATION REFERENCED FROM POPLI CONSULTING ENGINEERS AND SURVEYOR'S SURVEY FOR EEEPC'S SRI DATED SEPTEMBER 2007.
2. PROPERTY BOUNDARIES SHOWN ARE FROM NIAGARA COUNTY OFFICE OF REAL PROPERTY (2006).
3. FLOODPLAIN DATA OBTAINED FROM 1996 FEMA FLOODPLAIN MAPS.



ecology and environment

SCALE IN FEET

0 100 200 300

FIGURE 3: ALTERNATIVE 3 – EXCAVATION
EIGHTEENMILE CREEK CORRIDOR SITE,
LOCKPORT, NEW YORK

LEGEND:

- BANK STABILIZATION
- 100 YEAR FLOODPLAIN
- APPROXIMATE EXTENT OF SOIL EXCAVATION

Appendix II

Tables

TABLE 7-1
SELECTION OF EXPOSURE PATHWAYS FOR PROPERTIES A TO I.
Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe	Media	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current / Future	Surface Soil (0 to 2 Feet)	Surface Soil (0 to 2 Feet)	Residence (Properties A to I)	Resident	Adult	Ingestion	Quantitative	The properties are zoned residential but three properties lack residential structures. The properties are used now or in the future as a residence.
						Inhalation of Fugitive Dust	Quantitative	
						Dermal Contact	Quantitative	
			Residence (Properties A to I)	Resident	Young Child (1 to 6 years of age) and a child from birth to < 16 years for exposures to chemicals with a Mutagenic Mode of Action.	Ingestion	Quantitative	The properties are zoned residential but three properties lack residential structures. The properties are used now or in the future as a residence.
						Inhalation of Fugitive Dust	Quantitative	
						Dermal Contact	Quantitative	
Current / Future	Subsurface Soil	Subsurface Soil	Residence (Properties A to I)	Construction/ Utility Worker	Adult	Ingestion	Qualitative	The potential exists for a worker to be exposed in the future to subsurface soil during construction activities. This pathway was evaluated qualitatively based on the limited subsurface soil.
						Inhalation of Fugitive Dust	Qualitative	
						Dermal Contact	Quantitative	

Table 7-2. Page 1
Exposure Point Concentrations for Chemicals of Concern
Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe:	Current / Future
Medium	Soil
Exposure Medium:	Surface Soil

Exposure Point	Chemicals of Potential Concern	Detected Concentrations (1)			Frequency of Detection	Exposure Point Concentration for RME and CTE Individual			
		Minimum	Maximum	Units (2)		Value	Units	Statistic (3)	Rationale
Surface Soil - Property A	Total PCBs	0.080 (J)	0.266 (J)	mg/kg	3/5	0.2	mg/kg	95% Students -t UCL	ProUCL 4.00.05
	Arsenic (inorganic)	5.8 (N)	24	mg/kg	5/5	23.3	mg/kg	95% Students -t UCL	ProUCL 4.00.05
	Chromium (VI)	10.7 (EN)	27.3 (E)	mg/kg	5/5	23.6	mg/kg	95% Students -t UCL	ProUCL 4.00.05
	Copper	37.1 (EN)	370(N)	mg/kg	5/5	272.1	mg/kg	95% Students -t UCL	ProUCL 4.00.05
	Lead	158 (E)	3,680 (E)	mg/kg	6/6	1,088	mg/kg	Mean used consistent with guidance for addressing lead.	ProUCL 4.00.05
Surface Soil - Property B	Arsenic (inorganic)	29.3 (N)	30.4 (N)	mg/kg	3/3	30.4	mg/kg	Maximum - only 3 distinct values.	ProUCL 4.00.05
	Chromium (VI)	21.5 (EN)	30.6 (EN)	mg/kg	3/3	30.6	mg/kg	Maximum - only 3 distinct values.	ProUCL 4.00.05
	Lead	549 (E)	1,420 (E)	mg/kg	5/5	829.0	mg/kg	Mean (used consistent with guidance for addressing lead).	ProUCL 4.00.05
Surface Soil - Property C	Total PCBs	0.068 (J)	1.06	mg/kg	4/6	1.1	mg/kg	Maximum (calculated value exceeds the maximum concentration)	ProUCL 4.00.05
	Benzo(a)anthracene	1.100 (J)	1.100 (J)	mg/kg	1/1	1.1 (J)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Benzo(a)pyrene	1.100 (J)	1.100 (J)	mg/kg	1/1	1.1 (J)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Benzo(b)fluoroanthene	1.300 (J)	1.300 (J)	mg/kg	1/1	1.3 (J)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Dibenzo(ah)anthracene	0.290 J	0.290 J	mg/kg	1/1	0.29 (J)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Indeno(1,2,3-cd)pyrene	0.730 J	0.730 J	mg/kg	1/1	0.73(J)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Aluminum	9,460	9,460	mg/kg	1/1	9,460	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Arsenic (inorganic)	7.7 (N)	22.3	mg/kg	6/6	17.8	mg/kg	95% Student's-t UCL	ProUCL 4.00.05
	Chromium (VI)	16.2 (EN)	262 (E)	mg/kg	6/6	262 (E)	mg/kg	Statistical values exceeded maximum. Maximum assumed.	ProUCL 4.00.05
	Cobalt	8.3	8.3	mg/kg	1/1	8.3	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Copper	97.2 (EN)	2,240 (EN)	mg/kg	6/6	2,240	mg/kg	Maximum - calculated value exceeds maximum	ProUCL 4.00.05
	Iron	19,400	19,400	mg/kg	1/1	19,400	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Lead	603 (E)	1,030 (E)	mg/kg	6/6	845.5	mg/kg	Mean Value (Consistent with Lead Guidance).;	ProUCL 4.00.05
	Manganese	369	369	mg/kg	1/1	369	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Thallium (Soluble Salts)	0.68 (ND)	0.68 (ND)	mg/kg	1/1	Chemical was screened in but not further analyzed based on the lack of a toxicity value.			

(1) The Qualifier code (J) indicates that the analyte was detected and is considered an estimated value. Data was obtained from RAGS Part D - Table 3 in the Baseline Human Health Risk Assessment. ND - indicates the compound was analyzed for but not detected at the detection limit in parentheses. E - indicates the estimate concentration due to the presence of interefrerence (inorganics); N indicates a spike sample recorey or spike analysis is not iwthin quality control limites (inorganics); N/A indicates compounds was not analyzied. SB indicates site background concentration as determined during hte site investigation of the former Flintkote plant site.

(2) Units of detection were milligrams/kilogram (mg/kg) which are equivalent to parts per million (ppm).

(3) The statistical methods provided were based on recommendations from ProUCL version 4.00.05 available at: <http://www.epa.gov/esd/tsc/software.htm>. The calculations were obtained from RAGS Part D Table 3.1 and ProUCL Statistical Outputs provided in the Baseline Human Health Risk Assessment.

Table 7-2. Page 2.
Exposure Point Concentrations for Chemicals of Concern
Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe:	Current / Future
Medium	Soil
Exposure Medium:	Surface Soil

Exposure Point	Chemicals of Potential Concern	Detected Concentrations (1)			Frequency of Detection	Exposure Point Concentration for RME and CTE Individual (3)			
		Minimum	Maximum	Units (2)		Value	Units	Statistic	Rationale
Surface Soil - Property D	Total PCBs	0.044 (J)	0.740	mg/kg	2/3	0.740	mg/kg	Maximum (three samples)	ProUCL 4.00.05
	Arsenic (inorganic)	5	15.4 (N)	mg/kg	3/3	15.4 (N)	mg/kg	Maximum (three samples)	ProUCL 4.00.05
	Chromium (VI)	13.7 (E)	25.6 (EN)	mg/kg	3/3	25.6 (EN)	mg/kg	Maximum (three samples)	ProUCL 4.00.05
Surface Soil - Property E	Total PCBs	0.039 (J)	4.160	mg/kg	5/5	4.160	mg/kg	Maximum (only four samples)	ProUCL 4.00.05
	Aluminum	11400	11,400	mg/kg	1/1	11,400	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Arsenic (inorganic)	5.3	20.8	mg/kg	5/5	20.8	mg/kg	Maximum (only four samples)	ProUCL 4.00.05
	Cadmium	7.9 (N)	7.9 (N)	mg/kg	1/1	7.9 (N)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Chromium (VI)	7.7 (E)	157	mg/kg	5/5	157	mg/kg	Maximum (only four samples)	ProUCL 4.00.05
	Cobalt	19.0 (E)	19.0 (E)	mg/kg	1/1	19.0 (E)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Copper	20.7	603	mg/kg	5/5	603	mg/kg	Maximum (one four samples)	ProUCL 4.00.05
	Iron	71 (E)	103,000 (N)	mg/kg	2/2	103,000 (N)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Lead	38.7 (E)	672 (N)	mg/kg	5/5	370.2	mg/kg	Mean value for Lead (95% UCL is 530.3)	ProUCL 4.00.05
	Manganese	522 (N)	522 (N)	mg/kg	1/1	522 (N)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Mercury	1.9 (N)	1.9 (N)	mg/kg	1/1	1.9 (N)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Thallium (Soluble Salts)	2.1	2.1	mg/kg	1/1	Chemical was screened in but can not be further evaluated since the toxicity value is an Appendix X toxicity value for use in screening only.			
	Zinc	225 (E)	2140 (N)	mg/kg	5/5	2,140	mg/kg	Maximum (only four samples)	ProUCL 4.00.05
	Benzo(a)anthracene	0.87 (J)	0.87 (J)	mg/kg	1/1	0.87 (J)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Benzo(a)pyrene	0.87 (J)	0.87 (J)	mg/kg	1/1	0.86 (J)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Benzo(b)fluoranthene	0.99 (J)	0.99 (J)	mg/kg	1/1	0.99 (J)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	dibenzofuran	12 (ND)	12 (ND)	mg/kg	1/1	Chemical was screened in but can not be further evaluated since the toxicity value is an Appendix X toxicity value for use in screening only.			
	Indeno(1,2,3-cd)pyrene	0.54 (J)	0.54 (J)	mg/kg	1/1	0.54 (J)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05
	Naphthalene	12 (ND)	12 (ND)	mg/kg	1/1	12 (ND)	mg/kg	Maximum (one Sample)	ProUCL 4.00.05

(1) The Qualifier code (J) indicates that the analyte was detected and is considered an estimated value. Data was obtained from RAGS Part D - Table 3 in the Baseline Human Health Risk Assessment. ND - indicates the compound was analyzed for but not detected at the detection limit in parentheses. E - indicates the estimate concentration due to the presence of interference (inorganics); N indicates a spike sample recovery or spike analysis is not within quality control limits (inorganics); N/A indicates compounds was not analyzed. SB indicates site background concentration as determined during the site investigation of the former Flintkote plant site.

(2) Units of detection were milligrams/kilogram (mg/kg) which are equivalent to parts per million (ppm).

(3) The statistical methods provided were based on recommendations from ProUCL version 4.00.05 available at: <http://www.epa.gov/esd/tsc/software.htm>. The calculations were obtained from RAGS Part D Table 3.1 and ProUCL Statistical Outputs provided in the Baseline Human Health Risk Assessment.

Table 7-2. Page 3.
Exposure Point Concentrations for Chemicals of Concern
Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe:	Current / Future
Medium	Soil
Exposure Medium:	Surface Soil

Exposure Point	Chemicals of Potential Concern	Detected Concentrations (1)			Frequency of Detection	Exposure Point Concentration for RME and CTE Individual (3)			
		Minimum	Maximum	Units (2)		Value	Units	Statistic	Rationale
Surface Soil - Property F	Total PCBs	0.11 (ND)	0.260	mg/kg	1/2	0.26	mg/kg	Maximum -one Distinct Value	ProUCL 4.00.05
	Arsenic (inorganic)	11.6 (N)	13 (N)	mg/kg	2/2	13 (N)	mg/kg	Maximum - 2 Distinct Values	ProUCL 4.00.05
	Chromium (VI)	13.1 (EN)	18 (EN)	mg/kg	2/2	18 (EN)	mg/kg	Maximum - 2 Distinct Values	ProUCL 4.00.05
Surface Soil - Property G	Aluminum	8710	8710	mg/kg	1/1	8710	mg/kg	Maximum - 1 Value	ProUCL 4.00.05
	Arsenic (inorganic)	6.8	26.4 (EN)	mg/kg	3/3	26.4	mg/kg	Maximum - 3 Distinct Values	ProUCL 4.00.05
	Chromium (VI)	22.2	22.2	mg/kg	1/1	22.2	mg/kg	Maximum - 3 Distinct Values	ProUCL 4.00.05
	Cobalt	6.6 (E)	6.6 (E)	mg/kg	1/1	6.6 (E)	mg/kg	Maximum - 1 Value	ProUCL 4.00.05
	Iron	53100	53100	mg/kg	1/1	53,100	mg/kg	Maximum - only 1 Value	ProUCL 4.00.05
	Manganese	444 (N)	444 (N)	mg/kg	1/1	444	mg/kg	Maximum - 1 Value	ProUCL 4.00.05
	Thallium (Soluble Salts)	0.8 (BN)	0.8 (BN)	mg/kg	1/1	Not calculated since the toxicity value available is an Appenidx X value designed only for use in screening.			

(1) The Qualifier code (J) indicates that the analyte was detected and is considered an estimated value. Data was obtained from RAGS Part D - Table 3 in the Baseline Human Health Risk Assessment. ND - indicates the compound was analyzed for but not detected at the detection limit in parentheses. E - indicates the estimate concentration due to the presence of interfereence (inorganics); N indicates a spike sample recovery or spike analysis is not iwthin quality control limites (inorganics); N/A indicates compounds was not analyzed. SB indicates site background concentration as determined during hte site investigation of the former Flintkote plant site.

(2) Units of detection were milligrams/kilogram (mg/kg) which are equivalent to parts per million (ppm).

(3) The statistical methods provided were based on recommendations from ProUCL version 4.00.05 available at: <http://www.epa.gov/esd/tsc/software.htm>. The calculations were obtained from RAGS Part D Table 3.1 and ProUCL Statistical Outputs provided in the Baseline Human Health Risk Assessment.

Table 7-2. Page 4.
Exposure Point Concentrations for Chemicals of Concern
Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe:	Current / Future
Medium	Soil
Exposure Medium:	Surface Soil

Exposure Point	Chemicals of Potential Concern	Detected Concentrations (1)			Frequency of Detection	Exposure Point Concentration for RME and CTE Individual (3)			
		Minimum	Maximum	Units (2)		Value	Units	Statistic	Rationale
Surface Soil - Property H	Total PCBs	0.09 (ND)	8	mg/kg	4/8	8.0	mg/kg	Maximum (calculated value exceeds the maximum concentration)	ProUCL 4.00.05
	Benzo(a)anthracene	0.016 (J)	6.8 (J)	mg/kg	3/3	6.8	mg/kg	Maximum (Less than 4 Distinct Samples)	ProUCL 4.00.05
	Benzo(a)pyrene	0.4 (ND)	7.7	mg/kg	3/3	7.7	mg/kg	Maximum (Less than 4 Distinct Samples)	ProUCL 4.00.05
	Benzo(b)fluoranthene	0.019 (J)	8.4	mg/kg	3/3	8.4	mg/kg	Maximum (Less than 4 Distinct Samples)	ProUCL 4.00.05
	Benzo(k)fluoranthene	0.65 (J)	3.1 (J)	mg/kg	3/3	3.1	mg/kg	Maximum (Less than 4 Distinct Samples)	ProUCL 4.00.05
	Dibenzo(ah)anthracene	0.31 (J)	1.9 (J)	mg/kg	3/3	1.9	mg/kg	Maximum (Less than 4 Distinct Samples)	ProUCL 4.00.05
	Indeno(1,2,3-cd)pyrene	0.4 (ND)	6.1 (J)	mg/kg	3/3	6.1	mg/kg	Maximum (Less than 4 Distinct Samples)	ProUCL 4.00.05
	Pyrene	0.033 (J)	8.7	mg/kg	3/3	8.7	mg/kg	Maximum (Less than 4 Distinct Samples)	ProUCL 4.00.05
	Arsenic (inorganic)	7.5	19.6	mg/kg	9/9	48.1	mg/kg	95% Approximate Gamma UCL	ProUCL 4.00.05
	Chromium (VI)	5.8	39.1 (SB)	mg/kg	9/9	27.7	mg/kg	95% Student's t-UCL	ProUCL 4.00.05
	Cobalt	2.4 (B)	4.3 (BE)	mg/kg	3/3	4.3	mg/kg	Maximum (Less than 4 Distinct Samples)	ProUCL 4.00.05
	Iron	15600 (N)	28000 (N)	mg/kg	3/3	28000	mg/kg	Maximum (Less than 4 Distinct Samples)	ProUCL 4.00.05
	Lead	10.7 (N)	1160 (E)	mg/kg	3/3	782.1	mg/kg	Mean Value	ProUCL 4.00.05
	Thallium (Soluble Salts)	0.066 (ND)	0.75 (B)	mg/kg	2/3	Not evaluated based on the lack of toxicity values.			
Surface Soil - Property I	Total PCBs	0.11 (ND)	27.0	mg/kg	2/3	27.0	mg/kg	Maximum Concentration. 3 Distinct Values	ProUCL 4.00.05
	Arsenic (inorganic)	7.9 (N)	17.2	mg/kg	4/4	17.2	mg/kg	Maximum Concentration. Data set is too small to compute reliable and meaningful statistics and estimates.	ProUCL 4.00.05
	Chromium (VI)	6.6	164 (EN)	mg/kg	4/4	164	mg/kg	Maximum Concentration. Data set is too small to compute reliable and meaningful statistics and estimates.	ProUCL 4.00.05
	Copper	41.9	1010 (EN)	mg/kg	4/4	1010	mg/kg	Maximum Concentration. Data set is too small to compute reliable and meaningful statistics and estimates.	ProUCL 4.00.05
	Lead	169	1470 (E)	mg/kg	6/6	741.2	mg/kg	Mean value used consistent with Lead Guidance.	ProUCL 4.00.05

(1) The Qualifier code (J) indicates that the analyte was detected and is considered an estimated value. Data was obtained from RAGS Part D - Table 3 in the Baseline Human Health Risk Assessment. ND - indicates the compound was analyzed for but not detected at the detection limit in parentheses. E - indicates the estimate concentration due to the presence of interferences (inorganics); N indicates a spike sample recovery or spike analysis is not within quality control limits (inorganics); N/A indicates compounds was not analyzed. SB indicates site background concentration as determined during the site investigation of the former Flintkote plant site.

(2) Units of detection were milligrams/kilogram (mg/kg) which are equivalent to parts per million (ppm).

(3) The statistical methods provided were based on recommendations from ProUCL version 4.00.05 available at: <http://www.epa.gov/esd/tsc/software.htm>. The calculations were obtained from RAGS Part D Table 3.1 and ProUCL Statistical Outputs provided in the Baseline Human Health Risk Assessment.

Table 7-3-A.
Non-Cancer Toxicity Values - Oral/Dermal
Eighteen Mile Creek - Lockport, Niagara County, New York

		Oral Reference Doses		Dermal		Absorbed RfD for Dermal		Primary Target Organ	Combined Uncertainty/Modifying Factor	RfD Target Organs	
Chemicals of Concern	Chronic / Subchronic	Value	Units	Value	Reference	Value	Units			Sources	Date
Polychlorinated Biphenyls and Pesticides											
Aroclor 1016	Chronic	7E-05	mg/kg-day	1E+00	EPA, 2004	7E-05	mg/kg-day	Developmental (low birth weight)	100	IRIS	03/11/13
Aroclor 1254	Chronic	2E-05	mg/kg-day	1E+00	EPA, 2004	2E-05	mg/kg-day	immune system	300	IRIS	03/11/13
Semi-Volatile Organic Compounds											
Benzo(a)anthracene	Chronic	N/A	mg/kg-day	1E+00	EPA, 2004	N/A	mg/kg-day	N/A		IRIS	03/11/13
Benzo(a)pyrene	Chronic	N/A	mg/kg-day	1E+00	EPA, 2004	N/A	mg/kg-day	N/A		IRIS	03/11/13
Benzo(b)fluoroanthene	Chronic	N/A	mg/kg-day	1E+00	EPA, 2004	N/A	mg/kg-day	N/A		IRIS	03/11/13
Dibenzo(a,h)anthracene	Chronic	N/A	mg/kg-day	1E+00	EPA, 2004	N/A	mg/kg-day	N/A		IRIS	03/11/13
Indeno(1,2,3-cd)pyrene	Chronic	N/A	mg/kg-day	1E+00	EPA, 2004	N/A	mg/kg-day	NA		IRIS	03/11/13
Napthalene	Chronic	2E-02	mg/kg-day	1E+00	EPA, 2004	2E-02	mg/kg-day	LOAEL	3000	IRIS	03/11/13
Metals											
Aluminum	Chronic	1E+00	mg/kg-day	1E+00	EPA, 2004	N/A	mg/kg-day	Lowest Observed Adverse Effect Level for minimal neurotoxicity	100	PPRTV	03/11/13
Arsenic (inorganic)	Chronic	3E-04	mg/kg-day	1E+00	EPA, 2004	3E-04	mg/kg-day	Hyperpigmentation, keratosis and possible vascular complications	3	IRIS	03/11/13
Cadmium	Chronic	1E-03	mg/kg-day	0.025	EPA, 2004	3E-05	mg/kg-day	Significant proteinuria	10	IRIS	03/11/13
Chromium (VI)	Chronic	3E-03	mg/kg-day	3E-02	EPA, 2004	8E-05	mg/kg-day	No Observed Adverse Effect Level	300	IRIS	03/11/13
Cobalt	Chronic	3E-04	mg/kg-day	1E+00	EPA, 2004	3E-04	mg/kg-day	Lowest Observed Adverse Effect Level	3000	PPRTV	03/11/13
Copper	Chronic	4E-02	mg/kg-day	1E+00	EPA, 2004	4E-02	mg/kg-day	Irritation	(Not Stated)	HEAST	03/11/13
Iron	Chronic	7E-01	mg/kg-day	1E+00	EPA, 2004	7E-01	mg/kg-day	Lowest Observed Adverse Effect Level	1.5	PPRTV	03/11/13
Lead	Chronic							Lead was evaluated using OSWER Directive #9355.4-12.			
Manganese	Chronic	1E-01	mg/kg-day	1E+00	EPA, 2004	1E-01	mg/kg-day	Central Nervous System effects (other effect: Impairment of neurobehavioral function).	1	IRIS	03/11/13
Mercury	Chronic	1E-04	mg/kg-day	1E+00	EPA, 2004	1E-04	mg/kg-day	Neurological	10	IRIS	03/11/13
Zinc	Chronic	3E-01	mg/kg-day	1E+00	EPA, 2004	3E-01	mg/kg-day	LOAEL	3	IRIS	03/11/13

(1) The oral absorption efficiency data was obtained from the Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment). Final
(2) Dermal Reference Dose (RfD) values were calculated by multiplying the oral RfD by the Oral Absorption Efficiency for Dermal consistent with EPA's Dermal Guidance (USEPA, 2004).

EPA (2004). Risk Assessment Guidance for Superfund (RAGS). Volume I. Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment). Final. EPA/540/R/99/005. July 2004.
Abbreviations: PPRTV - Provisional Peer Reviewed Toxicity Values; IRIS - Integrated Risk Information System; IEUBK - Integrated Exposure Uptake Biokinetic model; LOAEL - Lowest Observed Adverse Effect Level; NA - not appropriate; mg/kg-day - milligrams/kilogram bodyweight/day).

Table 7-3-B.
Non-Cancer Toxicity Values - Inhalation
Eighteen Mile Creek - Lockport, Niagara County, New York

		Inhalation Reference Concentrations.				RfD Target Organs	
Chemicals of Concern	Chronic / Subchronic	Value	Units	Primary Target Organ	Combined Uncertainty/Modifying Factor	Sources	Date
Polychlorinated Biphenyls and Pesticides							
Aroclor 1016	Chronic	7E-05	mg/m³	immune system	100	Route to Route Extrapolation	03/11/13
Aroclor 1254	Chronic	2E-04	mg/m³	reduced birthweight	300	Route to Route Extrapolation	03/11/13
Semi-volatile Organic Compounds							
Benzo(a)anthracene		NA				NA	03/11/13
Benzo(a)pyrene		NA				NA	03/11/13
Benzo(b)fluoroanthene		NA				NA	03/11/13
Dibenzo(ah)anthracene		NA				NA	03/11/13
Indeno(1,2,3-cd)pyrene		NA				NA	03/11/13
Napthalene	Chronic	3E-03	mg/m3	Nasal effects: hyperplasia and metaplasia in respiratory and olfactory epithelium, respectively	3000	IRIS	03/11/13
Metals							
Aluminum	Chronic	5 E-03	mg/m3	Lowest Observed Adverse Effect Level	300	PPRTV	03/11/13
Arsenic (inorganic)	Chronic	1.5E-05	mg/m³	Development; cardiovascular system; nervous system; lung; skin	Not Listed	CalEPA	03/11/13
Cadmium		2.0E-05	mg/m3	Lactate dehydrogenase in bronchioalveolar lavage fluid	300	CalEPA	03/11/13
Chromium (VI)		1E-04	mg/m³			IRIS	03/11/13
Cobalt		6E-06	mg/m3	No Observed Adverse Effect Level	100	PPRTV	03/11/13
Copper		NA	mg/m³	NA	NA	IRIS	03/11/13
Iron	Chronic	Lead was evaluated using the the OSWER Directive #9355.4-12).					
Lead							
Manganese	Chronic	5E-05	mg/m3	Impairment of neurobehavioral function (other effect: Impairment of neurobehavioral function.	1,000	IRIS	03/11/13
Mercury	Chronic	3E-04	mg/m3	Lowest Observed Adverse Effect Level	30	IRIS	03/11/13
Zinc	Chronic	NA	mg/m3	NA	NA	IRIS	3/11/2013

(1) The oral absorption efficiency data was obtained from the Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment). Final

(2) Dermal Reference Dose (RfD) values were calculated by multiplying the oral RfD by the Oral Absorption Efficiency for Dermal consistent with EPA's Dermal Guidance (USEPA, 2004).

EPA (2004). Risk Assessment Guidance for Superfund (RAGS). Volume I. Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment). Final. EPA/540/R/99/005. July 2004.

Abbreviations: PPRTV - Provisional Peer Reviewed Toxicity Values; IRIS - Integrated Risk Information System; IEUBK - Integrated Exposure Uptake Biokinetic model; LOAEL - Lowest Observed Adverse Effect Level; NA - not appropriate; mg/m3 - milligrams/cubic meter).

Table 7- 4A
Cancer Toxicity Values - Oral/Dermal
Eighteen Mile Creek - Lockport, Niagara County, New York

Chemicals of Concern	Oral Cancer Slope Factor							
			Oral Absorption Efficiency for Dermal	Absorbed Cancer Slope Factor for Dermal		Weight of Evidence/ Cancer Guideline Description	Oral Cancer Slope Factor	
	Value	Units		Value	Units			Source(s)
			(1)	(2)		(3)		(MM/DD/YYYY)
Polychlorinated Biphenyls and Pesticides								
PCBs (Total)	2.0E+00	(mg/kg-day) ⁻¹	1E+00	2.0E+00	(mg/kg-day) ⁻¹	B2	IRIS	03/13/2013
Semi-volatile Organic Compounds								
Benzo(a)anthracene	7.3E-01	(mg/kg-day) ⁻¹	1E+00	7.3E-01	(mg/kg-day) ⁻¹	B2	IRIS	03/13/2013
Benzo(a)pyrene	7.3E+00	(mg/kg-day) ⁻¹	1E+00	7.3E+00	(mg/kg-day) ⁻¹	B2	IRIS	03/13/2013
Benzo(b)fluoroanthene	7.3E-01	(mg/kg-day) ⁻¹	1E+00	7.3E-01	(mg/kg-day) ⁻¹	B2	IRIS	03/13/2013
Dibenzo(ah)(anthracene	7.3E+00	(mg/kg-day) ⁻¹	1E+00	7.3E+00	(mg/kg-day) ⁻¹	B2	IRIS	03/13/2013
Indeno(1,2,3-cd)pyrene	7.3E-01	(mg/kg-day) ⁻¹	1E+00	7.3E-01	(mg/kg-day) ⁻¹	B2	IRIS	03/13/2013
Napthalene								
Metals								
Aluminum	NA		NA			Inadequate information to assess carcinogenic potential	PPRTV	3/13/2013
Arsenic (inorganic)	1.5E+00	(mg/kg-day) ⁻¹	1E+00	1.5E+00	(mg/kg-day) ⁻¹	A	IRIS	03/13/2013
Cadmium	NA		NA			B2	IRIS	03/13/2013
Chromium (VI)	5.0E-01	(mg/kg-day) ⁻¹	3E-02	2.0E+01	(mg/kg-day) ⁻¹	A	NJDEP/CalEPA	03/13/2013
Cobalt	NA		NA	NA				3/13/2013
Copper	NA		NA	NA		D	IRIS	3/13/2013
Iron	NA		NA	NA				3/13/2013
Lead	NA		NA	NA		B2	IRIS	3/13/2013
Manganese	NA		NA	NA				3/13/2013
Mercury	NA		NA	NA		D	IRIS	03/13/13
Zinc	NA		NA	NA		D	IRIS	03/13/13

(1) Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual Part E, Supplemental Guidance for Dermal Risk Assessment July 2004

(2) Based on oral cancer slope factor for Dermal exposure, if an absorption factor has been applied

(3) Weight of Evidence Classification defined as A - known human carcinogens; B2 - probable human carcinogens; C - possible human carcinogen; D - not classifiable as to carcinogenicity; and E - not carcinogenic to humans.

Abbreviations: mg/kg-day = milligrams/kilogram bodyweight/day; IRIS - Integrated Risk Information System; CalEPA = California Environmental Protection Agency; NJDEP- New Jersey Department of Environmental Protection; PPRTV - Provisional Peer Reviewed Toxicity Values.

Table 7-4 B
Cancer Toxicity Values - Inhalation.
Eighteen Mile Creek - Lockport, Niagara County, New York

Chemicals of Concern	Unit Risk		Inhalation Cancer Slope Factor		Weight of Evidence/ Cancer Guideline Description (3)	Unit Risk : Inhalation CSF	
	Value	Units	Value (1)	Units		Source(s)	Date(s) (MM/DD/YYYY)
Polychlorinated Biphenyls and Pesticides							
PCBs (Total) (2)	5.7E-04	(ug/m3) ⁻¹			B2	IRIS	3/13/2013
Semi-Volatile Organic Compounds							
Benzo(a)anthracene	1.1E-04	(ug/m3) ⁻¹			B2	IRIS	3/13/2013
Benzo(a)pyrene	1.1-03	(ug/m3) ⁻¹			B2	IRIS	3/13/2013
Benzo(b)fluoroanthene	1.1E-04	(ug/m3) ⁻¹			B2	IRIS	3/13/2013
Dibenzo(ah)anthracene	1.2E-03	(ug/m3) ⁻¹			B2	IRIS	3/13/2013
Indeno(1,2,3-cd)pyrene	1.1E-04	(ug/m3) ⁻¹			B2	IRIS	3/13/2013
Naphthalene	3.4E-05	(ug/m3) ⁻¹				CalEPA	3/13/2013
Metals							
Aluminum	NA				inadequate information to assess carcinogenic potential	PPRTV	3/13/2013
Arsenic (inorganic)	4.3E-03	(ug/m3) ⁻¹			A	IRIS	3/13/2013
Cadmium	1.8E-03	(ug/m3) ⁻¹			B2	IRIS	3/13/2013
Chromium (VI)	8.4E-02	(ug/m3) ⁻¹			A	NJDEP/CalEPA	3/13/2013
Cobalt	9.0E-03	(ug/m3) ⁻¹				PPRTV	3/13/2013
Copper	NA				D	IRIS	3/13/2013
Iron	NA						3/13/2013
Manganese	NA						3/13/2013
Mercury	NA						3/13/2013
Zinc	NA				D	IRIS	3/13/2013

(1) Based on IRIS file inhalation cancer slope factor for dust or aerosol inhalation

(2) Based on IRIS recommendation when addressing Inhalation of evaporated congeners

(3) Weight of Evidence Classification defined as A - known human carcinogens; B2 - probable human carcinogens; C - possible human carcinogen; D - not classifiable as to carcinogenicity; and E - not carcinogenic to humans.

Abbreviations: ug/m3 - micrograms/cubic meter; IRIS - Integrated Risk Information System; CalEPA = California Environmental Protection Agency; NJDEP- New Jersey Department of Environmental Protection; PPRTV - Provisional Peer Reviewed Toxicity Values.

TABLE 7-5 - Property A RME Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property A

REASONABLE MAXIMUM EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Future
 Receptor Population: Residents
 Receptor Age: Child and Adult

Medium	Exposure Medium	Exposure Point	Chemicals of Potential Concern										
				Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Property A Surface Soil	Surface Soil	Resident (Child) (Property A)	Arsenic (inorganic)	2.3E-05	5.9E-09	3.2E-06		2.6E-05	Hyperpigmentation	0.59	0.001	0.08	0.7
			Chromium (VI) (< 2)	4.3E-05	3.9E-07		4.4E-05	No Observed Adverse Effect Level	0.10	0.0002		0.1	
			Chromium (VI) (2 to 6)	2.6E-05	2.3E-07		2.6E-05	No Observed Adverse Effect Level	0.10	0.0002		0.0002	
			Chromium (VI) (6 to < 16)	6.9E-06	5.8E-07		7.5E-06	No Observed Adverse Effect Level	0.01	0.0002		0.01	
			Copper	NA				Irritation	0.09			0.1	
			PCBs	4.7E-07	7.9E-10	1.8E-07	6.5E-07	Immune system	0.14	0.000002	0.05	0.2	
			Chemical Total	9.9E-05	1.2E-06	3.4E-06		1.0E-04		1.0	0.002	0.13	1.1
	Exposure Point Total						1.0E-04					1	
	Exposure Medium Total						1.0E-04					1	
	Surface Soil	Resident (Adult) (Property A)	Arsenic (inorganic)	9.8E-06	2.3E-08	2.0E-06		1.2E-05	Hyperpigmentation	0.06	0.001	0.01	0.07
			Chromium (VI)	3.2E-06	2.7E-07		3.5E-06	No Observed Adverse Effect Level	0.01	0.0002		0.01	
			Copper	NA			NA	Irritation	0.01			0.01	
			PCBs	2.0E-07	2.9E-11	1.10E-07	3.1E-07	Immune System	0.01	0.000002	0.01	0.02	
			Chemical Total	1.3E-05	2.9E-07	2.1E-06		1.6E-05		0.10	0.001	0.02	0.1
	Exposure Point Total						1.6E-05					0.1	
	Exposure Medium Total						1.6E-05					0.1	
Medium Total										Child HI Total *		1	
Total					Adult And Child Risk Total *			1E-04			Adult HI Total *		0.1

* Cancer risks and noncancer health hazards are presented with one significant digit consistent with guidance (USEPA, 1989).

TABLE 7-5 - Property B RME Cancer Risks and Non-Cancer Health Hazards
RISK SUMMARY - Property B
REASONABLE MAXIMUM EXPOSURE
Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child and Adult

Medium	Exposure Medium	Exposure Point	Chemicals of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Property B Surface Soil	Surface Soil (Property B)	Resident (Child)	Arsenic (inorganic)	3.0E-05	7.67E-09	4.2E-06	3.4E-05	Hyperpigmentation	0.78	0.001	0.1	0.88
			Chromium (VI) (< 2)	5.6E-05	5.03E-07		5.6E-05	No Observed Adverse Effect Level	0.13	0.0002		0.13
			Chromium (VI) (2 to 6)	3.4E-05	3.02E-07		3.4E-05	No Observed Adverse Effect Level	0.13	0.0002		0.13
			Chromium (VI) (6 to < 16)	9.0E-06	7.55E-07		9.7E-06	No Observed Adverse Effect Level	0.01	0.0002		0.01
		Exposure Point Total		1.3E-04	1.6E-06	4.2E-06	1.3E-04		1.1	0.002	0.1	1.2
		Resident (Adult)	Arsenic	1.3E-05	3.1E-08	2.60E-06	1.5E-05	Hyperpigmentation	0.08	0.001	0.02	0.10
			Chromium (VI)	4.2E-06	3.5E-07		4.6E-06	No Observed Adverse Effect Level	0.01	0.0002		0.01
		Exposure Point Total	Chemical Total	1.7E-05	3.8E-07	2.6E-06	2.0E-05		0.10	0.002	0.02	0.12
Receptor Total										Receptor Total Child HI		1
Receptor Total					Adult and Child Risk Total		2E-04			Receptor HI Total Adult		0.1

* Results are presented with one significant figure consistent with guidance (USEPA, 1989).

TABLE 7-5 - Property C - Page 1. RME Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property C

REASONABLE MAXIMUM EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Future
 Receptor Population: Resident
 Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemicals of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Soil	Surface Soil	Resident (child) (Property C)	Benzo(a)anthracene (< 2 yrs)	2.9E-06	2.4E-11	1.1E-06		4.0E-06						
			Benzo(a)anthracene (2 to 6 yrs)	1.8E-06	1.4E-11	6.4E-07		2.4E-06						
			Benzo(a)anthracene (6 to <16 yrs)	4.7E-07	3.6E-11	2.4E-07		7.1E-07						
			Benzo(a)pyrene (< 2 yrs)	2.9E-05	2.4E-10	1.1E-05		4.0E-05						
			Benzo(a)pyrene (2 to 6 yrs)	1.8E-05	1.4E-10	6.4E-06		2.4E-05						
			Benzo(a)pyrene (6 to < 16 yrs)	4.7E-06	3.6E-10	2.4E-06		7.1E-06						
			Benzo(b)fluoroanthene (< 2 yrs)	3.5E-06	2.8E-11	1.3E-06		4.8E-06						
			Benzo(b)fluoroanthene (2 to 6 yrs)	2.1E-06	1.7E-11	7.6E-07		2.8E-06						
			Benzo(b)fluoroanthene (6 to < 16 yrs)	5.6E-07	4.2E-11	2.9E-07		8.5E-07						
			Dibenzo(ah)anthracene (< 2 yrs)	7.7E-06	6.8E-11	2.8E-06		1.1E-05						
			Dibenzo(ah)anthracene (2 to 6 yrs)	4.6E-06	4.1E-11	1.7E-06		6.3E-06						
			Dibenzo(ah)anthracene (6 to <16 yrs)	1.2E-06	1.0E-10	6.4E-07		1.9E-06						
			Indeno(1,2,3-cd)pyrene (< 2 yrs)	1.9E-06	1.6E-11	7.1E-07		2.7E-06						
			Indeno(1,2,3-cd)pyrene (2 to 6 yrs)	1.2E-06	9.4E-12	4.3E-06		5.5E-06						
			Indeno(1,2,3-cd)pyrene (6 to < 16 yrs)	3.1E-07	2.4E-11	1.6E-06		1.9E-06						
			Aluminum											
			Arsenic (inorganic)	1.8E-05	4.5E-09	2.5E-06		2.0E-05						
			Chromium (VI) (< 2)	4.8E-04	3.9E-07			4.8E-04						
			Chromium (VI) (2 to 6)	2.9E-04	2.3E-07			2.9E-04						
			Chromium (VI) (6 to < 16)	7.7E-05	5.8E-07			7.7E-05						
			Copper											
			Cobalt		4.4E-09			4.4E-09						
			Iron											
			Manganese											
	PCBs	2.4E-06	3.7E-11	9.5E-07		3.4E-06								
Exposure Point Total				9.4E-04	1.2E-06	4E-05		1E-03		5.1	0.01	0.3	5.4	
Exposure Medium Total														
Medium Total														
Receptor Total				Child Risk Total					1E-03	Child HI Total				5.4

HI (Irritation)	0.7
HI (NOAEL)	2.3
HI (Immune System)	1
HI (LOAEL)	0.8
HI (Hyperpigmentation)	0.6

TABLE 5 - Property C - Page 2. RME Cancer Risks and Non-Cancer Health Hazards
RISK SUMMARY - Property C
REASONABLE MAXIMUM EXPOSURE
Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient					
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Soil	Surface Soil	Resident (adult) (Property C)	Benzo(a)anthracene	2.2E-07	1.7E-11	1.1E-07	3.3E-07	neurotoxicity Hyperpigmentation NOAEL LOAEL Irritation LOAEL CNS Effects Immune	0.01 0.05 0.1 0.04 0.08 0.04 0.004 0.1	0.001 0.0006 0.0004 0.04 0.00001	0.01 0.05 0.1 0.04	0.01 0.05 0.1 0.04 0.004 0.1	
			Benzo(a)pyrene	2.2E-06	1.7E-10	1.1E-06	3.3E-06						
			Benzo(b)fluoroanthene	2.6E-07	2.0E-11	1.3E-07	3.9E-07						
			Dibenzo(ah)anthracene	5.8E-07	4.8E-11	3.0E-07	8.8E-07						
			Indeno(1,2,3-cd)pyrene	1.5E-07	1.1E-11	7.6E-08	2.2E-07						
			Aluminum	7.5E-06 3.6E-05	1.8E-08 9.6E-08	1.5E-06	9.0E-06 3.6E-05						
			Arsenic (inorganic)										
			Chromium (VI)										
			Cobalt										
			Copper	1.0E-06	1.5E-10	5.8E-07	1.6E-06						
			Iron										
			Manganese										
			PCBs										
			Exposure Point Total		5E-05	1E-07	4E-06						5.2E-05
		Exposure Medium Total		Adult Risk total				5.2E-05	Adult HI Total				0.5
Medium Total													
Receptor Total				Child Risk Total				9.8E-04	Child HI Total				5.4
Total (Adult and Child)							1E-03						

HI (Irritation)	0.08
HI (NOAEL)	0.14
HI (Immune System)	0.1
HI (LOAEL)	0.08
HI (Hyperpigmentation)	0.05

TABLE 7- 5d - Property D - RME Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property D

REASONABLE MAXIMUM EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Residence (Child) Property D	Chromium (VI) (< 2)	4.7E-05	4.2E-07			4.7E-05	No Observed Adverse Effect Level	0.11	0.0002		0.11
			Chromium (VI) (2 to 6)	2.8E-05	2.5E-07			2.8E-05	No Observed Adverse Effect Level	0.11	0.0002		0.11
			Chromium (VI) (6 to < 16)	7.5E-06	6.3E-07			8.1E-06	No Observed Adverse Effect Level	0.01	0.0002		0.01
			PCBs	1.6E-06	2.5E-11	6.4E-07		2.3E-06	immune system	0.47	0.00001	0.19	0.66
			Chemical Total	8.4E-05	1.3E-06	6.4E-07		8.6E-05		0.7	0.001	0.19	0.9
		Exposure Point Total											
	Exposure Medium Total												
	Surface Soil	Residence (Adult) Property D	Arsenic (inorganic)	6.5E-06	1.6E-08	5.6E-06		1.2E-05	Hyperpigmentation, keratosis and possible vascular complications	0.04	0.001	0.04	0.08
			Chromium (VI)	3.5E-06	2.9E-07			3.8E-06	No Observed Adverse Effect Level	0.01	0.001		0.01
			PCBs	7.0E-07	9.9E-11	3.9E-07		1.1E-06	immune system	0.10	0.000007	0.03	0.13
			Chemical Total	1.1E-05	3.1E-07	6.0E-06		1.7E-05		0.15	0.002	0.06	0.2
		Exposure Point Total											
	Exposure Medium Total										Total HI for Child		1
Medium Total								1E-04			Total HI for Adult		0.2

TABLE 7-5e - Property E - Page 1. - RME Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property E

REASONABLE MAXIMUM EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future

Receptor Population: Resident

Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemicals of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient					
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Soil	Surface Soil	Resident (child) (Property E)	Benzo(a)anthracene (< 2 yrs)	2.3E-06	1.9E-11	2.5E-07	2.6E-06	Decreased bodyweight in males Decreased bodyweight in males Decreased bodyweight in males LOAEL minimal neurotoxicity Hyperpigmentation Significant Proteinuria NOAEL Point of Deparature/Nasal Septum Atrophy LOAEL with decreased iodine uptake Irritation LOAEL - adverse GI effects CNS Effects Neurological LOAEL Immune System	0.004 0.004 0.0004 0.03 0.09 0.10 0.14 0.14 0.07 0.81 0.19 1.88 0.28 0.24 0.09 2.66	0.04 0.04 0.04 0.0009 0.001 0.001 0.002 0.007 0.04	0.0000005 0.0000005 0.00000007 0.0000004 0.009 1.04	0.04 0.04 0.04 0.03 0.09 0.11 0.14 0.14 0.07 0.81 0.19 1.88 0.29 0.24 0.09 3.74	
			Benzo(a)anthracene (2 to 6 yrs)	1.4E-06	1.1E-11	5.1E-07	1.9E-06						
			Benzo(a)anthracene (6 to < 16 yrs)	3.7E-07	2.9E-11	6.4E-06	6.8E-06						
			Benzo(a)pyrene (< 2 yrs)	2.3E-05	1.9E-10	8.4E-06	3.2E-05						
			Benzo(a)pyrene (2 to 6 yrs)	1.4E-05	1.1E-10	5.1E-06	1.9E-05						
			Benzo(a)pyrene (6 to < 16 yrs)	3.7E-06	2.9E-10	1.9E-06	5.7E-06						
			Benzo(b)fluoroanthene (< 2 yrs)	2.6E-06	2.1E-11	2.9E-07	2.9E-06						
			Benzo(b)fluoroanthene (2 to 6 yrs)	1.6E-06	1.3E-11	5.8E-07	2.2E-06						
			Benzo(b)fluoroanthene (6 to < 16 yrs)	4.2E-07	3.3E-11	2.1E-06	4.2E-07						
			Indeno(1,2,3-cd)pyrene (< 2 yrs)	1.4E-06	1.2E-11	5.2E-07	2.0E-06						
			Indeno(1,2,3-cd)pyrene (2 to 6 yrs)	8.6E-07	7.0E-12	3.1E-07	1.2E-06						
			Indeno(1,2,3-cd)pyrene (6 to < 16 yrs)	2.3E-07	1.7E-11	1.2E-07	3.5E-07						
			Napthalene (< 2 yrs)		4.0E-11		4.0E-11						
			Napthalene (2 to < 6 yrs)		2.4E-11		2.4E-11						
			Napthalene (6 to < 16 yrs)		6.2E-11		6.2E-11						
			Aluminum										
			Arsenic (inorganic)	6.8E-05	5.4E-09	2.9E-06	7.1E-05						
			Cadmium		8.30E-10		8.3E-10						
			Chromium (VI) (< 2)	2.9E-04	2.6E-06		2.9E-04						
			Chromium (VI) (2 to 6)	1.7E-04	1.5E-06		1.7E-04						
			Chromium (VI) (6 to < 16 yrs.)	4.6E-05	4.0E-06		5.0E-05						
			Cobalt		1.0E-08		1.0E-08						
			Copper										
			Iron										
			Manganese										
			Mercury										
			Zinc										
			PCBs	9.1E-06	1.4E-10	2.9E-06	1.2E-05						
Exposure Point Total				6.3E-04	8E-06	3E-05	6.7E-04		6.7	0.17	1.0	8.0	
Exposure Medium Total													
Medium Total													
Receptor Total				Child Risk Total				7E-04	Child HI Total				8.0

HI (Immune System)	3.7
HI (LOAEL adverse)	1.9

TABLE 7-5e - Property E - Page 2. - RME Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property E

REASONABLE MAXIMUM EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future

Receptor Population: Resident

Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemicals of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Resident (Adult) (Property E)	Benzo(a)anthracene	1.7E-07	1.3E-11	9.0E-08	2.6E-07	Decreased bodyweight in males LOAEL minimal neurotoxicity Hyperpigmentation Significant Proteinuria NOAEL Point of Departure/Nasal Septum Atrophy LOAEL with decreased iodine uptake Irritation LOAEL - adverse GI effects CNS Effects Neurological LOAEL Immune System	0.001	0.04	0.0002	0.04
			Benzo(a)pyrene	1.7E-06	1.3E-10	9.0E-07	2.6E-06					
			Benzo(b)fluoranthene	2.0E-07	1.5E-11	1.0E-07	3.0E-07					
			Indeno(1,2,3-cd)pyrene	1.1E-07	8.1E-12	5.6E-08	1.6E-07					
			Napthalene		2.8E-11		2.8E-11					
			Aluminum									
			Arsenic (inorganic)	1.5E-05	2.8E-08	1.5E-06	1.7E-05					
			Cadmium		3.3E-09		3.3E-09					
			Chromium (VI)	2.2E-05	1.8E-06		2.3E-05					
			Cobalt		4.0E-08		4.0E-08					
			Copper									
			Iron									
			Manganese									
			Mercury									
			Zinc									
	PCBs	3.9E-06	5.6E-10	2.2E-06	6.1E-06							
		Exposure Point Total	4.3E-05	2E-06	5E-06	5.0E-05		0.8	0.091	0.2	1.0	
	Exposure Medium Total											
Medium Total				Child Risk Total			6.6E-04	Child HI Total			8	
Receptor Total				Adult Risk Total			5.0E-05	Adult HI Total			1.0	
Receptor Total				Total Risk			7E-04					

TABLE 7-5f - Property F - RME Cancer Risks and Non-Cancer Health Hazards
RISK SUMMARY - Property F
REASONABLE MAXIMUM EXPOSURE
Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Futue
Receptor Population: Residents
Receptor Age: Child and Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
							Exposure Routes Total	Primary Target Organ(s)				Exposure Routes Total
				Ingestion	Inhalation	Dermal			Ingestion	Inhalation	Dermal	
Surface Soil	Surface Soil	Residence (Child) Property F	Arsenic (inorganic)	1.3E-05	3.3E-09	2.2E-07	1.3E-05	Hyperpigmentation, keratosis and possible vascular complications	0.33	0.0006	0.05	0.38
			Chromium (VI) (1 to < 2)	3.3E-05	3.0E-07		3.3E-05	none reported	0.08	0.0001		0.08
			Chromium (VI) (2 to 6)	2.0E-05	1.8E-07		2.0E-05	none reported	0.08	0.0001		0.08
			Chromium (VI) (6 to < 16)	5.3E-06	4.4E-07		5.7E-06	none reported	0.01	0.0001		0.01
			PCBs	5.7E-07	8.7E-12	1.8E-06	2.4E-06	immune system	0.17	0.000003	0.07	0.23
			Chemical Total	7.1E-05	9.2E-07	2.0E-06	7.4E-05		0.7	0.0009	0.11	0.8
		Exposure Point Total					7.4E-05					0.8
	Exposure Medium Total Child						7.4E-05					0.8
	Surface Soil	Residence (Adult) Property F	Arsenic (inorganic)	9.2E-06	1.3E-08	1.1E-06	1.0E-05	Hyperpigmentation, keratosis and possible vascular complications	0.06	0.0006	0.01	0.07
			Chromium	2.5E-06	2.1E-07		2.7E-06	none reported	0.01	0.0001		0.01
			PCBs	2.4E-07	3.5E-11	1.4E-07	3.8E-07	immune system	0.02	0.000003	0.01	0.03
			Chemical Total	1.2E-05	2.2E-07	1.2E-06	1.3E-05		0.09	0.0007	0.02	0.11
		Exposure Point Total					1.3E-05				Child	0.8
	Exposure Medium Total						8.8E-05				Adult	0.1
Medium Total												
Receptor Total							1.6E-04			Child Receptor HI Total		0.8
Receptor Total							2E-04			Adult Receptor HI Total		0.1

TABLE 5g - Property G - RME Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property G

REASONABLE MAXIMUM EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future
 Resident Adult and Child
 Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Residence Property G Child	Aluminum					minimal neurotoxicity	0.11	0.001		0.11
			Arsenic (inorganic)	2.6E-05	6.7-09	3.60E-06	3.0E-05	hyperpigmentation	0.7	0.0012	0.06	0.76
			Chromium (VI) (< 2)	4.1E-05	3.6E-07		4.1E-05	NOAEL	0.09	0.0002		0.09
			Chromium (VI) (2 to 6)	2.4E-05	2.2E-07		2.5E-05	NOAEL	0.09	0.0002		0.09
			Chromium (VI) (6 to < 16 yrs)	6.5E-06	5.5E-07		7.1E-06	NOAEL	0.01	0.0002		0.01
			Cobalt		3.5E-09		3.5E-09	decreased iodine uptake	0.28	0.0008		0.28
			Iron					LOAEL	0.97			0.97
			Manganese					CNS effects	0.41	0.006		0.42
			Chemical Total	9.7E-05	1.1E-06	3.6E-06	1.0E-04		2.7	0.01	6.0E-02	3
		Exposure Point Total										
	Exposure Medium Total						1 E-04					3
	Surface Soil	Residence Property G Adult	Aluminum					minimal neurotoxicity	0.01	0.001		0.01
			Arsenic (inorganic)	1.1E-05	1.7E-08	2.2E-06	1.3E-05	hyperpigmentation	0.07	0.0008	0.01	0.08
			Chromium (VI)	3.0E-06	5.2E-07		3.6E-06	NOAEL	0.01	0.0002		0.01
			Cobalt		1.4E-08		1.4E-08	decreased iodine uptake	0.03	0.0006		0.03
			Iron					LOAEL	0.1			0.10
			Manganese					CNS effects	0.04	0.006		0.046
			Chemical Total	1.4E-05	5.5E-07	2.2E-06	1.7E-05		0.3	0.009	0.01	0.3
		Exposure Point Total		1.4E-05	5.5E-07	2.2E-06	1.7E-05		0.2	0.016	0.01	0.3
	Exposure Medium Total			1.7E-05	1.1E-06	2.2E-06	2.0E-05		0.4	0.032	0.00	0.5
Medium Total											Child HI Total	3
Receptor Total				Child and Adult Risk Total			1E-04				Adult HI Total	0.3

HI Total (LOAEL)	0.97
HI (Hyperpigmentation)	0.8
HI (CNS)	0.42
HI (NOAEL)	0.2
HI (decreased iodine)	0.42

TABLE 7-5h - Property H - Page 1. RME Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property H (Page 1)

REASONABLE MAXIMUM EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future

Receptor Population: Resident

Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemicals of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Resident (child) (Property H)	Benzo(a)anthracene (< 2 yrs)	1.8E-05	1.5E-10	6.6E-06	2.5E-05					
			Benzo(a)anthracene (2 to 6 yrs)	1.1E-05	8.8E-11	4.0E-06	1.5E-05					
			Benzo(a)anthracene (6 to <16 yrs)	2.9E-06	2.2E-10	1.5E-06	4.4E-06					
			Benzo(a)pyrene (< 2 yrs)	2.1E-04	1.7E-09	7.5E-05	2.8E-04					
			Benzo(a)pyrene (2 to 6 yrs)	1.2E-04	9.9E-10	4.5E-05	1.7E-04					
			Benzo(a)pyrene (6 to < 16 yrs)	3.3E-05	2.5E-09	1.7E-05	5.0E-05					
			Benzo(b)fluoroanthene (< 2 yrs)	2.2E-05	1.8E-10	8.2E-06	3.1E-05					
			Benzo(b)fluoroanthene (2 to 6 yrs)	1.3E-05	1.1E-10	4.9E-06	1.8E-05					
			Benzo(b)fluoroanthene (6 to < 16 yrs)	3.6E-06	2.7E-10	1.9E-06	5.5E-06					
			Benzo(k)fluoroanthene (< 2 yrs)	8.3E-07	6.7E-11	3.0E-07	1.1E-06					
			Benzo(k)fluoroanthene (2 to 6 yrs)	5.0E-07	4.0E-11	1.8E-07	6.8E-07					
			Benzo(k)fluoroanthene (6 to < 16 yrs)	1.3E-07	1.0E-10	6.9E-08	2.0E-07					
			Dibenzo(ah)anthracene (< 2 yrs)	5.1E-05	4.5E-10	5.5E-08	5.1E-05					
			Dibenzo(ah)anthracene (2 to 6 yrs)	3.0E-05	2.7E-10	1.1E-05	4.1E-05					
			Dibenzo(ah)anthracene (6 to <16 yrs)	8.1E-06	6.7E-10	4.2E-06	1.2E-05					
			Indeno(1,2,3-cd)pyrene (< 2 yrs)	1.6E-05	1.3E-10	5.9E-06	2.2E-05					
			Indeno(1,2,3-cd)pyrene (2 to 6 yrs)	9.8E-06	7.9E-11	3.6E-05	4.6E-05					
			Indeno(1,2,3-cd)pyrene (6 to < 16 yrs)	2.6E-06	2.0E-10	1.4E-05	1.7E-05					
			Pyrene (< 2 years)		1.2E-08		1.2E-08	Kidney effects	0.004		0.0003	0.004
			Pyrene (2 to 6 years)		9.1E-07		9.1E-07	Kidney effects	0.004		0.0003	0.004
			Pyrene (6 to < 16 years)		6.8E-07		6.8E-07	Kidney effects	0.0004		0.0003	0.001
			Arsenic (inorganic)	4.7E-05	4.1E-07	6.6E-06	5.4E-05	Hyperpigmentation	1.2	0.002	0.17	1.4
			Chromium (VI) (< 2)	5.1E-05			5.1E-05	NOAEL	0.1	0.0002		0.1
			Chromium (VI) (2 to 6)	3.0E-05			3.0E-05	NOAEL	0.1	0.0002		0.1
			Chromium (VI) (6 to < 16)	8.1E-06			8.1E-06	NOAEL	0.03	0.0002		0.03
			Cobalt		2.3E-09		2.3E-09	Irritation	0.2	0.0005		0.2
			Iron					LOAEL	0.5			0.5
			PCBs	1.80E-05	4.7E-10	6.9E-06	2.5E-05	Immune	5.11	0.08	2.0	7.2
			Exposure Point Total	7.1E-04	2E-06	2E-04	1E-03		7.2	0.08	2.2	9.5
		Exposure Medium Total										
Medium Total												
Receptor Total				Child Risk Total		1E-03	Child HI Total			9.5		

HI (immune)	7.2
HI (kidney)	0.009
HI (hyperpigmentation)	1.4
HI (NOAEL)	0.23

TABLE 7-5h - Property H - Page 2. RME Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property H (Page 2)

REASONABLE MAXIMUM EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future

Receptor Population: Resident

Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Resident (adult) Property H	Benzo(a)anthracene	1.4E-06	1.0E-10	7.1E-07	2.1E-06	Kidney Effects Hyperpigmentation NOAEL Irritation LOAEL Immune System	0.0002 0.1 0.01 0.02 0.05 0.50		0.00005 0.0001 0.001 0.31	0.0002 0.1 0.04 0.02 0.05 0.8
			Benzo(a)pyrene	1.5E-05	1.20E-09	8.0E-06	2.3E-05					
			Benzo(b)fluoroanthene	1.7E-06	1.30E-10	8.7E-07	2.6E-06					
			Benzo(k)fluoroanthene	6.2E-08	4.70E-10	3.2E-08	9.4E-08					
			Dibenzo(ah)anthracene	3.8E-06	3.10E-10	2.0E-06	5.8E-06					
			Indeno(1,2,3-cd)pyrene	1.2E-06	9.20E-11	6.3E-07	1.8E-06					
			Pyrene									
			Arsenic (inorganic)	2.0E-05	4.9E-08	4.1E-06	2.4E-05					
			Chromium (VI)	3.8E-06	3.2E-07		4.1E-06					
			Cobalt									
			Iron									
			PCBs	7.5E-06	1.10E-09	4.2E-06	1.2E-05					
		Exposure Point Total	5E-05	4E-07	2E-05	7.5E-05		0.7	0.001	0.34	1.1	
	Exposure Medium Total					7.5E-05					1.1	
Medium Total												
Receptor Total (Adult and Child)				Receptor Risk Total			7.5E-05	Receptor HI Total				1

TABLE 7-5i - Property I - Page 1. RME Cancer Risks and Non-Cancer Health Hazards
RISK SUMMARY - Property I (Page1)
REASONABLE MAXIMUM EXPOSURE
Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future
Receptor Population: Adult/Child
Receptor Age: Child (< 16 Yrs) and Adult (> 18 Yrs)

Medium	Exposure Media	Exposure Point	Chemicals of Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient					
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Soil	Surface Soil	Surface Soil (Property I)	Arsenic (inorganic)	1.7E-05	4.3E-09	2.40E-06	1.9E-05	Hyperpigmentation	0.44	0.0008	0.06	0.5	
			Chromium (VI) (< 2)	3.0E-04	2.7E-06		3.0E-04	No Observed Adverse Effect Level	0.70	0.001		0.7	
			Chromium (VI) (2 to 6)	1.8E-04	1.6E-06		1.8E-04	No Observed Adverse Effect Level	0.35	0.001		0.4	
			Chromium (VI) (6 to < 16 YRS)	4.8E-05	4.0E-06		5.2E-05	No Observed Adverse Effect Level	0.07	0.001		0.07	
			Copper					Irritation	0.32			0.3	
			PCBs	5.9E-05	9.0E-10	2.3E-05	8.2E-05	Immune	17.30	0.0003	6.77	24.1	
		Chemical Total (Child)	6.0E-04	8.3E-06	2.3E-05	6.4E-04		19.2	0.004	6.8	26.0		
Exposure Point Total							6.4E-04					26.0	
	Exposure Medium Total												
Surface Soil	Surface Soil	Surface Soil (Property I)	Arsenic (inorganic)	7.3E-06	1.7E-08	1.5E-06	8.8E-06	Hyperpigmentation	0.05	0.0008	0.001	0.05	
			Chromium (VI)	2.2E-05	1.9E-06		2.4E-05	No Observed Adverse Effect Level	0.07	0.0002		0.07	
			Copper					Irritation	0.03			0.03	
			PCBs	2.5E-05	3.60E-09	1.4E-05	3.9E-05	Immune	1.85	0.00009	1.03	2.88	
			Chemical Total (Adult)	5.4E-05	1.9E-06	1.6E-05	7.2E-05		2.0	0.001	1.0	3.0	
		Exposure Point Total (Adult and Child)			6.6E-04	1.0E-05	3.9E-05	7.1E-04					
	Exposure Medium Total					7.1E-04							
Medium Total								Total HI (Child)				26	
Receptor Total				Receptor Risk Total (Child and Adult)				7E-04	Total HI (Adult)				3.0

HI (Immune) (child)	24.1
HI (Immune) (adult)	2.88
HI (Immune) (child)	1.2

TABLE 6 - Property A. CTE Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property A

CENTRAL TENDENCY EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Future
 Receptor Population: Residents
 Receptor Age: Adult and Child

Medium	Exposure	Exposure	Chemicals of Concern										
				Carcinogenic Risk				Non-Carcinogenic Hazard Quotient					
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Property A Surface Soil	Surface Soil	Resident (Child) (Property A)	Arsenic (inorganic)	5.7E-06	2.9E-09	3.2E-07	6.1E-06	Hyperpigmentation	0.30	0.001	0.02	0.32	
			Chromium (VI) (< 2)	1.1E-05	1.9E-07		1.1E-05	No Observed Adverse Effect Level	0.05	0.0002		0.05	
			Chromium (VI) (2 to 6)	3.2E-06	5.8E-08		3.3E-06	No Observed Adverse Effect Level	0.05	0.0002		0.05	
			Chromium (VI) (6 to < 16)	3.5E-07	5.80E-08		3.5E-07	No Observed Adverse Effect Level	0.01	0.0002		0.01	
		Chemical Total	2.0E-05	3.1E-07	3.2E-07	2.1E-05		0.41	0.002	0.02	0.4		
	Exposure Point Total												
	Exposure Medium Total												
	Surface Soil	Resident (Adult) (Property A)	Arsenic (inorganic)	1.2E-06	5.9E-09	7.0E-08	1.3E-06	Hyperpigmentation	0.03	0.001	0.002	0.03	
			Chromium (VI)	6.9E-07	1.2E-07		8.1E-07	No Observed Adverse Effect Level	0.01	0.0002		0.01	
			Chemical Total	1.9E-06	1.2E-07	7.0E-08	2.1E-06		0.04	0.001	0.002	0.04	
	Exposure Point Total												
Exposure Medium Total					2.3E-05								
Medium Total									Child HI Total		0.6		
Total				Receptor Risk Total (Child & Adult)		2E-05			Adult HI Total		0.04		

* Total cancer risks and noncancer health hazards are presented with one significant figure consistent with guidance (USEPA, 1989).

TABLE 6 - Property B. CTE Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property B

CENTRAL TENDENCY EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current / Future

Receptor Population: Resident

Receptor Age: Child and Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure	Primary	Ingestion	Inhalation	Dermal	Exposure
Surface Soil	Surface Soil	Resident (Child) (Property B)	Arsenic (inorganic)	7.5E-06	3.8E-09	4.2E-07	7.9E-06	Hyperpigmentation	0.39	0.001	0.02	0.4
			Chromium (VI) (< 2)	1.4E-05	2.5E-07		1.4E-05	NOAEL	0.07	0.0002		0.07
			Chromium (VI) (2 to 6)	4.2E-06	7.6E-08		4.3E-06	NOAEL	0.07	0.0002		0.07
			Chromium (VI) (6 to < 16)	4.5E-07	7.6E-08		5.2E-07	NOAEL	0.01	0.0002		0.01
			Chemical Total	2.6E-05	4.0E-07	4.2E-07	2.7E-05		0.5	0.002	0.02	0.5
Surface Soil	Surface Soil	Resident (Adult) (Property B)	Arsenic (inorganic)	1.6E-06	7.7E-09	9.0E-08	1.7E-06	Hyperpigmentation	0.04	0.001	0.002	0.04
			Chromium (VI)	9.0E-07	1.5E-07		1.1E-06	NOAEL	0.01	0.0002		0.01
			Chemical Total	2.5E-06	1.6E-07	9.0E-08	2.7E-06		0.05	0.002	0.002	0.05
										Receptor HI Total (Child)		0.5
Receptor Total				Adult + Child Risk Total			3E-05			Receptor HI Total (Adult)		0.05

* Results are presented with one significant figure consistent with guidance (USEPA, 1989).

TABLE 6 - Property C - Page 1. CTE Cancer Risks and Non-Cancer Health Hazards
RISK SUMMARY - Property C - Page 1.
CENTRAL TENDENCY EXPOSURE
Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Resident (child) Property C	Benzo(a)anthracene (< 2 yrs)	7.3E-07	1.2E-11	1.1E-07	8.4E-07	LOAEL for minimal neurotoxicity Hyperpigmentation NOAEL	0.1 0.2 0.6	0.001 0.001 0.0002	0.01	0.1 0.2 0.6
			Benzo(a)anthracene (2 to 6 yrs)	2.2E-07	3.6E-12	3.2E-08	2.5E-07					
			Benzo(a)anthracene (6 to <16 yrs)	2.4E-08	3.6E-12	3.5E-09	2.8E-08					
			Benzo(a)pyrene (< 2 yrs)	7.3E-06	1.2E-10	1.1E-06	8.4E-06					
			Benzo(a)pyrene (2 to 6 yrs)	2.2E-06	3.7E-11	3.2E-07	2.5E-06					
			Benzo(a)pyrene (6 to < 16 yrs)	2.4E-07	3.6E-11	3.5E-08	2.8E-07					
			Benzo(b)fluoranthene (< 2 yrs)	8.7E-07	1.4E-11	1.3E-07	1.0E-06					
			Benzo(b)fluoranthene (2 to 6 yrs)	2.6E-07	4.2E-12	3.8E-08	3.0E-07					
			Benzo(b)fluoranthene (6 to < 16 yrs)	2.8E-08	4.2E-12	4.1E-09	3.2E-08					
			Dibenzo(ah)anthracene (< 2 yrs)	1.9E-06	3.4E-11	2.8E-07	2.2E-06					
			Dibenzo(ah)anthracene (2 to 6 yrs)	5.8E-07	1.1E-11	8.4E-08	6.6E-07					
			Dibenzo(ah)anthracene (6 to <16 yrs)	6.2E-08	1.0E-11	3.5E-08	9.7E-08					
			Indeno(1,2,3-cd)pyrene (< 2 yrs)	4.9E-07	7.9E-12	7.1E-08	5.6E-07					
			Indeno(1,2,3-cd)pyrene (2 to 6 yrs)	1.5E-07	2.4E-12	2.1E-07	3.6E-07					
			Indeno(1,2,3-cd)pyrene (6 to < 16 yrs)	1.6E-08	2.4E-12	3.5E-08	5.1E-08					
			Aluminum									
			Arsenic (inorganic)	4.4E-06	2.9E-09	4.90E-07	4.9E-06					
			Chromium (VI) (1 to < 2 years)	1.2E-04	1.9E-07		1.2E-04					
			Chromium (VI) (2 to 6 years)	3.6E-05								
			Chromium (VI) (6 to < 16)	3.8E-06	1.9E-07		3.6E-05	NOAEL	0.6	0.0002		0.6
			Cobalt		1.9E-07		4.0E-06	NOAEL	0.1	0.0002		0.1
			Copper		2.2E-09		2.2E-09	LOAEL	0.2	0.0009		0.2
			Iron					Irritation	0.4			0.4
			Manganese					LOAEL	0.2			0.2
								CNS effects (other effect: Impairment of neurobehavioral function.)	0.02	0.005		0.03
		PCBs	6.0E-07	1.9E-11	9.5E-08	7.0E-07	Immune system	0.35	0.01	0.06	0.42	
Exposure Point Total			1.8E-04	5.9E-07	3.1E-06	1.8E-04		2.4	0.02	0.07	2.9	
Exposure Medium Total												
Medium Total												
Receptor Total			Receptor Risk To 2E-04				Child Receptor HI Total 3					

HI (Irritation)	0.4
HI (NOAEL)	1.3
HI (LOAEL)	0.3
HI (Immune System)	0.4
HI (Hyperpigmentation)	0.2

TABLE 6 - Property C - Page 2. CTE Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property C - Page 2.

CENTRAL TENDENCY EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Future
 Receptor Population: Resident
 Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient									
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total					
Surface Soil	Surface Soil	Resident (Adult) Property C	Benzo(a)anthracene	4.7E-08	7.1E-12	7.0E-09	5.4E-08	LOAEL for minimal neurotoxicity	0.01	0.00002	0.02	0.01					
			Benzo(a)pyrene	4.7E-07	7.1E-11	7.0E-08	5.4E-07										
			Benzo(b)fluoranthene	5.6E-08	8.4E-12	8.3E-09	6.4E-08										
			Dibenzo(ah)anthracene	1.2E-07	2.0E-11	1.8E-08	1.4E-07										
			Indeno(1,2,3-cd)pyrene	3.1E-08	4.7E-12	4.6E-09	3.6E-08										
			Aluminum														
			Arsenic (inorganic)	9.4E-07	4.5E-09	5.40E-08	1.0E-06						Hyperpigmentation	0.02	0.000001	0.02	0.04
			Chromium (VI)	7.7E-06	4.1E-08		7.7E-06						NOAEL	0.06	0.000005		0.06
			Cobalt										LOAEL	0.02			0.02
			Copper										Irritation	0.04			0.04
		Iron					LOAEL	0.02			0.02						
			Manganese					CNS effects (other effect: Impairment of neurobehavioral function.)	0.002			0.002					
	PCBs	1.3E-07	2.6E-08	2.1E-08	1.8E-07	Immune	0.04	0.0000002	0.01	0.05							
	Exposure Point Total		9.5E-06	7.2E-08	1.8E-07	9.7E-06		0.2	0.00003	0.03	0.2						
	Exposure Medium Total			Adult - Receptor Risk			9.7E-06					0.2					
Medium Total			Child - Receptor Risk			1.8E-04	Child - HI				3						
Receptor Total (Adult and Child)			Adult and Child - Receptor Risk Total			2E-04	Adult HI Total				0.3						

HI (Irritation)	0.04
HI (NOAEL)	0.06
HI (LOAEL)	0.04
HI (Immune System)	0.05
HI (Hyperpigmentation)	0.04

TABLE 6 - Property D. CTE Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property D

CENTRAL TENDENCY EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future

Receptor Population: Resident

Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Residence (Child) (Property D)	Arsenic (inorganic)	3.8E-06	1.9E-09	2.1E-07	4.0E-06	Hyperpigmentation, keratosis and possible vascular complications	0.20	0.0007	0.01	0.21
			Chromium (VI) (1 to < 2 years)	1.2E-05	2.1E-07		1.2E-05	No Observed Adverse Effect Level	0.05	0.0002		0.05
			Chromium (VI) (2 to 6 years)	3.5E-06	6.3E-08		3.6E-06	No Observed Adverse Effect Level	0.05	0.0002		0.05
			Chromium (VI) (6 to < 16 years)	3.8E-07	6.3E-08		4.4E-07	No Observed Adverse Effect Level	0.01	0.0002		0.01
			PCBs	4.1E-07	1.3E-11	6.4E-08	4.7E-07	immune system	0.24	0.00001	0.04	0.28
		Chemical Total	2.0E-05	3.4E-07	2.7E-07	2.0E-05		0.5	0.001	0.05	0.6	
		Exposure Point Total										
	Exposure Medium Total											
	Surface Soil	Residence (Adult) (Property D)	Arsenic (inorganic)	8.1E-07	3.9E-09	2.0E-07	1.0E-06	Hyperpigmentation, keratosis and possible vascular complications	0.02	0.0007	0.01	0.03
			Chromium (VI)	7.5E-07	1.3E-06		2.1E-06	No Observed Adverse Effect Level	0.01	0.0002		0.01
			PCBs	8.7E-08	2.5E-11	1.4E-08	1.0E-07	immune system	0.12	0.000007	0.004	0.12
			Chemical Total	1.7E-06	1.3E-06	2.1E-07	3.2E-06		0.15	0.001	0.01	0.16
		Exposure Point Total										
	Exposure Medium Total									Total HI for Child		0.6
Medium Total			al Cancer Risks (Adult and C			3E-05	Total HI for Adult			0.2		

TABLE 6 - Property E - Page 1. CTE Cancer Risks and Non-Cancer Health Hazards
RISK SUMMARY - Property E - Page 1
CENTRAL TENDENCY EXPOSURE
Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemicals of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Resident (child) (Property E)	Benzo(a)anthracene (< 2 yrs)	5.8E-07	9.4E-12	3.6E-07	9.4E-07					
			Benzo(a)anthracene (2 to 6 yrs)	1.7E-07	2.8E-12	2.5E-08	2.0E-07					
			Benzo(a)anthracene (6 to < 16 yrs)	1.9E-08	2.9E-12	2.5E-08	4.4E-08					
			Benzo(a)pyrene (< 2 yrs)	5.8E-06	9.4E-11	9.2E-08	5.9E-06					
			Benzo(a)pyrene (2 to 6 yrs)	1.7E-06	2.8E-11	8.4E-07	2.5E-06					
			Benzo(a)pyrene (6 to < 16 yrs)	1.9E-07	2.9E-11	2.5E-07	4.4E-07					
			Benzo(b)fluoroanthene (< 2 yrs)	6.6E-07	1.1E-11	2.8E-08	6.9E-07					
			Benzo(b)fluoroanthene (2 to 6 yrs)	2.0E-07	3.2E-12	2.9E-08	2.3E-07					
			Benzo(b)fluoroanthene (6 to < 16 yrs)	2.1E-08	3.3E-12	1.0E-08	2.1E-08					
			Indeno(1,2,3-cd)pyrene (< 2 yrs)	3.6E-07	5.8E-12	5.2E-08	4.1E-07					
			Indeno(1,2,3-cd)pyrene (2 to 6 yrs)	1.1E-07	1.7E-12	1.6E-08	1.3E-07					
			Indeno(1,2,3-cd)pyrene (6 to < 16 yrs)	1.2E-08	1.8E-12	1.7E-09	1.4E-08					
			Napthalene (< 2 yrs)		2.0E-11		2.0E-11	Decreased bodyweight in males	0.002	0.04	0.0003	0.04
			Napthalene (2 to < 6 yrs)		6.0E-12		6.0E-12	Decreased bodyweight in males	0.002	0.04	0.0003	0.04
			Napthalene (6 to < 16 yrs)		6.0E-12		6.0E-12	Decreased bodyweight in males	0.0004	0.04	0.00003	0.04
			Aluminum					LOAEL minimal neurotoxicity	0.02			0.02
			Arsenic (inorganic)	2.8E-05	2.7E-09		2.8E-05	Hyperpigmentation	0.04	0.0009	0.01	0.05
			Cadmium		4.20E-10		4.2E-10	Significant Proteinuria	0.05		0.002	0.05
			Chromium (VI) (< 2)	7.2E-05	1.3E-06		7.3E-05		0.07	0.001		0.07
			Chromium (VI) (2 to 6)	2.2E-05	3.9E-07		2.2E-05	NOAEL Point of Deparature/Nasal Septum	0.07	0.001		0.07
			Chromium (VI) (6 to < 16 yrs.)	2.3E-06	4.0E-07		2.7E-06	Atrophy	0.07	0.001		0.07
			Cobalt		5.0E-09		5.0E-09	LOAEL with decreased iodine uptake	0.40	0.002		0.40
			Copper					Irritation	0.10			0.10
			Iron					LOAEL - adverse GI effects	0.94			0.94
			Manganese					CNS Effects	0.14	0.007		0.15
			Mercury					Neurological	0.12			0.12
			Zinc					LOAEL	0.05			0.05
			PCBs	2.3E-06	7.0E-11	2.9E-07	2.6E-06	Immune System	1.33	0.04	0.21	1.58
Exposure Point Total				1.4E-04	2E-06	2E-06	1.4E-04		3.4	0.2	0.2	3.8
Exposure Medium Total												
Medium Total												
Receptor Total				Child Risk Total			1E-04	Child HI Total				3.8

HI (Immune System)	1.6
GI Effects)	0.9

TABLE 6 - Property E - Page 2. CTE Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property E - Page 2

CENTRAL TENDENCY EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future
 Receptor Population: Resident
 Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemicals of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Resident (Adult) (Property E)	Benzo(a)anthracene	3.7E-08	5.8E-12	5.5E-09	4.3E-08	Decreased bodyweight in r LOAEL minimal neurotoxicity Hyperpigmentation Significant Proteinuria NOAEL Point of Deparature/Nasal Septum Atrophy LOAEL with decreased iodine uptake Irritation LOAEL - adverse GI effects CNS Effects Neurological LOAEL Immune System	0.0002	0.04	0.00000001	0.04
			Benzo(a)pyrene	3.7E-07	5.6E-11	5.5E-08	4.3E-07					
			Benzo(b)fluoroanthene	4.2E-08	6.4E-12	6.3E-09	4.8E-08					
			Indeno(1,2,3-cd)pyrene	2.3E-08	3.5E-12	3.4E-09	2.6E-08					
			Napthalene		1.2E-11		1.2E-11					
			Aluminum									
			Arsenic (inorganic)	1.1E-06	5.4E-09	6.3E-08	1.2E-06					
			Cadmium		8.3E-10		8.3E-10					
			Chromium (VI)	4.6E-06	7.7E-07		5.4E-06					
			Cobalt		1.0E-08		1.0E-08					
			Copper									
			Iron									
			Manganese									
			Mercury									
			Zinc									
	PCBs	4.9E-07	1.4E-10	7.8E-08	5.7E-07							
	Exposure Point Total			6.7E-06	8E-07	2E-07	7.7E-06		0.4	0.04	0.02	0.4
	Exposure Medium Total											
Medium Total				Child Risk			1.0E-04					
Receptor Total				Adult Risk Total			7.7E-06	Adult HI Total			0.4	
Receptor Total				Total Risk			1E-04	Child HI Total			3.8	

TABLE 6 - Property F CTE Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property F

CENTRAL TENDENCY EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future

Receptor Population: Residents

Receptor Age: Child and Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Residence Surface Soil Child Property F	Chromium (VI) (1 to < 2 years)	8.2E-06	1.5E-07		8.4E-06	No Observed Adverse Effect Level	0.04	0.0001		0.04
			Chromium (VI) (2 to 6 years)	2.5E-06	4.4E-08		2.5E-06	No Observed Adverse Effect Level	0.04	0.0001		0.04
			Chromium (VI) (6 to < 16 years)	2.6E-07	4.4E-08		3.0E-07	No Observed Adverse Effect Level	0.00	0.0001		0.00
			PCBs	1.4E-07	4.4E-12	2.2E-08	1.6E-07	immune system	0.08	0.000003	0.01	0.09
			Chemical Total	1.1E-05	2.4E-07	2.2E-08	1.1E-05		0.2	0.000	0.01	0.17
		Exposure Point Total					1.1E-05					0.2
	Exposure Medium Total Child						1.1E-05					0.2
	Surface Soil	Residence Surface Soil Adult Property F	Arsenic (inorganic)	1.1E-06	3.3E-09	3.9E-08	1.1E-06	Hyperpigmentation, keratosis and possible vascular complications	0.03	0.0006	0.001	0.03
			Chromium	5.3E-06	8.9E-08		5.4E-06	No Observed Adverse Effect Level	0.004	0.0001		0.004
			PCBs	3.1E-08	8.7E-12	4.9E-09	3.6E-08	immune system	0.01	0.000003	0.001	0.01
			Chemical Total	6.4E-06	9.2E-08	4.4E-08	6.6E-06		0.04	0.001	0.002	0.05
		Exposure Point Total					6.6E-06				Child	0.35
	Exposure Medium Total										Adult	0.05
Medium Total												
Receptor Total											Child Receptor HI Total	0.4
Receptor Total											Adult Receptor HI Total	0.05

TABLE 6 - Property G. CTE Cancer Risks and Non-Cancer Health Hazards
RISK SUMMARY - Property G
CENTRAL TENDENCY EXPOSURE
Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future
Receptor: Resident Adult and Child
Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Residence Property G	Aluminum					minimal neurotoxicity	0.06	0.001		0.06
			Arsenic (inorganic)	6.5E-06	3.3E-09	1.80E-06	8.3E-06	hyperpigmentation	0.3	0.0012	0.005	0.31
		Child	Chromium (VI) (< 2)	1.0E-05	1.8E-07		1.0E-05	NOAEL	0.05	0.0002		0.05
			Chromium (VI) (2 to 6)	3.0E-06	5.5E-08		3.1E-06	NOAEL	0.05	0.0002	0.05	
			Chromium (VI) (6 to < 16 yrs)	6.5E-07	5.5E-08		7.1E-07	NOAEL	0.01	0.0002	0.01	
			Cobalt		1.7E-09		1.7E-09	decreased iodine uptake	0.1	0.0008	0.14	
			Iron					LOAEL	0.5		0.5	
			Manganese					CNS effects	0.2	0.006	0.2	
		Chemical Total	2.0E-05	3.0E-07	1.8E-06	2.2E-05		1.3	0.01	0.005	1	
		Exposure Point Total		2.0E-05	3.0E-07	1.8E-06	2.2E-05		1.3E+00	9.7E-03	5.0E-03	1
	Exposure Medium Total			2.0E-05	3.0E-07	1.8E-06	2.2E-05		1.3E+00	9.7E-03	5.0E-03	1
	Surface Soil	Residence Property G	Aluminum					minimal neurotoxicity	0.01	0.001		0.01
			Arsenic (inorganic)	2.3E-06	6.7E-09	8.00E-08	2.4E-06	hyperpigmentation	0.04	0.0012	0.002	0.04
			Chromium (VI)	6.5E-07	1.1E-07		7.6E-07	NOAEL	0.01	0.0002		0.01
			Cobalt		3.5E-09		3.5E-09	decreased iodine uptake	0.02	0.001	0.02	
			Iron					LOAEL	0.1		0.10	
			Manganese					CNS effects	0.02	0.006	0.026	
			Chemical Total	3.0E-06	1.2E-07	8.0E-08	3.2E-06		0.2	0.003	0.002	0.21
	Exposure Point Total		5.9E-06	2.4E-07	1.6E-07	6.3E-06		0.2	0.002	0.002	0.41	
	Exposure Medium Total			5.9E-06	2.4E-07	1.6E-07	6.3E-06		1.9E-01	2.0E-03	2.0E-03	0
Medium Total				5.9E-06	2.4E-07	1.6E-07	6.3E-06		1.9E-01	2.0E-03	2.0E-03	0
Receptor Total				Adult and Child Risk Total			3E-05		Child HI Total		1	

TABLE 6 - Property H - Page 1. CTE Cancer Risks and Non-Cancer Health Hazards

RISK SUMMARY - Property H - Page 1

CENTRAL TENDENCY EXPOSURE

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient									
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total					
Surface Soil	Surface Soil	Resident (child) Property H	Benzo(a)anthracene (1 to < 2 yrs)	7.3E-07	1.2E-11	1.1E-07	8.4E-07										
			Benzo(a)anthracene (> 2 to 6 yrs)	2.2E-07	3.6E-12	3.2E-08	2.5E-07										
			Benzo(a)anthracene (6 to <16 yrs)	2.4E-08	3.6E-12	3.5E-09	2.8E-08										
			Benzo(a)pyrene (1 to < 2 yrs)	7.3E-06	1.2E-10	1.1E-06	8.4E-06										
			Benzo(a)pyrene (2 to 6 yrs)	2.2E-06	3.6E-11	3.2E-07	2.5E-06										
			Benzo(a)pyrene (6 to < 16 yrs)	2.4E-07	3.6E-11	3.5E-08	2.8E-07										
			Benzo(b)fluoroanthene (1 to < 2 yrs)	8.7E-07	1.4E-11	1.3E-07	1.0E-06										
			Benzo(b)fluoroanthene (2 to 6 yrs)	2.6E-07	4.2E-12	3.8E-08	3.0E-07										
			Benzo(b)fluoroanthene (6 to < 16 yrs)	2.8E-08	4.2E-12	4.1E-09	3.2E-08										
			Benzo(k)fluoroanthene (1 to < 2 yrs)	2.1E-07	3.3E-11	3.0E-08	2.4E-07										
			Benzo(k)fluoroanthene (2 to 6 yrs)	6.2E-08	1.0E-11	9.0E-09	7.1E-08										
			Benzo(k)fluoroanthene (6 to < 16 yrs)	6.6E-09	1.0E-11	9.8E-10	7.6E-09										
			Dibenzo(ah)anthracene (1 to < 2 yrs)	1.9E-06	3.4E-11	2.8E-07	2.2E-06										
			Dibenzo(ah)anthracene (2 to 6 yrs)	5.8E-07	1.0E-11	8.4E-08	6.6E-07										
			Dibenzo(ah)anthracene (6 to <16 yrs)	6.2E-08	1.0E-11	3.5E-08	9.7E-08										
			Indeno(1,2,3-cd)pyrene (1 to < 2 yrs)	4.9E-07	7.9E-12	7.1E-08	5.6E-07										
			Indeno(1,2,3-cd)pyrene (2 to 6 yrs)	1.5E-07	2.4E-12	2.1E-07	3.6E-07										
			Indeno(1,2,3-cd)pyrene (6 to < 16 yrs)	1.6E-08	2.4E-12	1.3E-06	1.3E-06										
			Pyrene (< 2 yrs)				Kidney effects						0.002		0.0001	0.002	
			Pyrene (2 to 6 yrs)				Kidney effects						0.002		0.0001	0.002	
			Pyrene (6 to < 16 yrs)				Kidney effects						0.002		0.00001	0.002	
			Arsenic (inorganic)	1.2E-05	6.1E-09	1.30E-06	1.3E-05						Hyperpigmentation	0.60	0.002	0.03	0.6
			Chromium (VI) (1 to < 2)	1.3E-05	2.3E-07		1.3E-05						NOAEL	0.1	0.0002		0.1
			Chromium (VI) (2 to 6)	3.8E-06	2.3E-07		4.0E-06						NOAEL	0.1	0.0002		0.1
			Chromium (VI) (6 to < 16)	4.1E-07	2.3E-07		6.4E-07						NOAEL	0.01	0.0002		0.01
			Cobalt		1.1E-09		1.1E-09						Irritation	0.1	0.0005		0.1
			Iron										LOAEL	0.3			0.3
			PCBs	4.4E-06	1.40E-12	6.9E-07	5.1E-06						Immune Effects	2.6	0.08	0.4	3.1
				Exposure Point Total	5E-05	7E-07	6E-06	6E-05		3.8	0.08	0.4	4				
		Exposure Medium Total															
		Medium Total															
		Child Total Risk and Hazard						6E-05	Child HI Total				4				

HI (immune effects)	3.1
HI (LOAEL)	0.3
HI (NOAEL)	0.21

Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult and Child

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Resident (adult) Property H	Benzo(a)anthracene	4.7E-08	7.1E-12	7.0E-09	5.4E-08	Kidney effects Hyperpigmentation NOAEL Irritation LOAEL Immune Effects	0.0002	0.000002	0.00001	0.0002
			Benzo(a)pyrene	4.7E-07	7.1E-11	7.0E-08	5.4E-07		0.07		0.001	0.07
			Benzo(b)fluoranthene	5.6E-08	8.4E-12	8.3E-09	6.4E-08		0.01		0.00002	0.01
			Benzo(k)fluoranthene	1.3E-08	2.0E-11	2.0E-09	1.5E-08		0.02		0.05	0.02
			Dibenzo(ah)anthracene	1.2E-07	2.0E-11	1.8E-08	1.4E-07		0.03		0.000001	0.3
			Indeno(1,2,3-cd)pyrene	3.1E-08	4.7E-12	4.6E-09	3.6E-08		0.4		0.05	0.3
			Pyrene									
			Arsenic (inorganic)	2.5E-06	1.2E-08	5.4E-08	2.6E-06					
			Chromium (VI)	8.1E-06	1.4E-06		9.5E-06					
			Cobalt									
			Iron									
	PCBs	9.4E-07	1.9E-07	9.0E-07	2.0E-06							
		Exposure Point Total	1E-05	2E-06	1E-06	1.5E-05		0.4	0.05	0.3	0.8	
	Exposure Medium Total					1.5E-05					0.8	
Medium Total								Receptor HI Total (child)				4
Receptor Total (Adult and Child)			Receptor Risk Total				1.5E-05	Receptor HI Total (Child)				0.8

TABLE 6 - Property I. CTE Cancer Risks and Non-Cancer Health Hazards
RISK SUMMARY - Property I
CENTRAL TENDENCY EXPOSURE
Eighteen Mile Creek - Lockport, Niagara County, New York

Scenario Timeframe: Current/Future
Receptor Population: Adult/Child
Receptor Age: Child (< 16 Yrs) and Adult (> 18 Yrs)

Medium	Exposure Medium	Exposure Point	Chemicals of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient					
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Child													
Surface Soil	Surface Soil	Surface Soil (Property I) (Child)	Arsenic (inorganic)	4.2E-06	2.2E-09	2.4E-07	4.4E-06	Hyperpigmentation, keratosis and possible vascular complications	0.22	0.0008	0.01	0.23	
			Chromium (VI) (< 2 Years)	7.5E-05	1.3E-06		7.6E-05	NOAEL (Adj)	0.35	0.001		0.35	
			Chromium (VI) (2 to 6 Years)	2.2E-05	4.0E-07		2.3E-05	NOAEL (Adj)	0.35	0.001		0.35	
			Chromium (VI) (6 to < 16 Yrs))	2.4E-06	4.0E-07		2.8E-06	NOAEL (Adj)	0.04	0.001		0.04	
			Copper					Irritation	0.10			0.10	
			PCBs	1.5E-05	4.5E-09	2.3E-06	1.7E-05	Immune	8.63	0.0003	1.35	9.98	
			Chemical Total	1.2E-04	2.1E-06	2.6E-06	1.2E-04		9.7	0.004	1.4	11.0	
		Exposure Point Total (Child)					1.2E-04				11.0		
Exposure Medium Total (Child)						1.2E-04				11.0			
Adult													
Surface Soil	Surface Soil	Surface Soil (Property I) (Adult)	Arsenic (inorganic)	9.1E-07	4.3E-09	5.2E-08	9.6E-07	Hyperpigmentation, keratosis and possible vascular complications	0.02	0.0008	0.001	0.03	
			Chromium (VI)	4.8E-06	8.1E-07		5.6E-06	NOAEL (Adj)	0.04	0.001		0.04	
			Copper					Irritation	0.02	0.0003		0.02	
			PCBs	3.2E-06	9.0E-10	5.1E-07	3.7E-06	Immune	0.92		0.15	1.07	
			Chemical Total	8.9E-06	8.2E-07	5.6E-07	1.0E-05		1.0	0.002	0.001	1.2	
	Exposure Point Total (Adult)		8.9E-06	8.2E-07	5.6E-07	4.7E-06					1.2		
Exposure Medium Total (Adult)						4.7E-06				1.2			
Medium Total									Receptor HI - Adult		11		
Receptor Total (Adult and Child)					Receptor Risk To		1E-04			Receptor HI - Child		1.2	
												Total Organ (Immune System) HI Across All Media for Child =	10
												Total Organ (Immune System) HI Across All Media for Adult =	1.1
												Total Organ 2 HI Across All Media =	All other health effects are below HI = 1

Table 13-1 Chemical-Specific ARARs, TBCs and Other Guidance

Act/Authority	Criteria/Issues	Citation	Brief Description
Environmental Conservation Law, Articles 1, 3, 27, and 52; Administrative Procedures Act, Articles 301 and 305. Clean Air Act	Inactive Hazardous Waste Disposal Site	6 NYCRR 375	Part 375-6.8: Provides soil cleanup objectives used for this report.
	National Primary and Secondary Ambient Air Quality Standards	40 CFR 50	Establishes emission limits for six pollutants (SO ₂ , PM ₁₀ , CO, O ₃ , NO ₂ , and Pb)
	National Emission Standards for Hazardous Air Pollutants	40 CFR 61 40 CFR 61 Subpart M	Provides emission standards for 8 contaminants; Identifies 25 additional contaminants, including PCE and TCE, as having serious health effects but does not provide emission standards for these contaminants.

Table 13-2 Location-Specific ARARs, TBCs and Other Guidance

Act/Authority	Criteria/Issues	Citation	Brief Description
New York State Environmental Conservation Law	Endangered and Threatened Species	6 NYCRR 182	Lists endangered and threatened species and species of special interest.
	Freshwater Wetlands	6 NYCRR 663-665	Establishes permit requirement regulations, wetland maps, and classifications.
	Floodplain Management Regulations Development Permits	6 NYCRR 500	Describes development permitting requirements for areas in floodplains
	Use and Protection of Waters	6 NYCRR 608	Regulates the modification or disturbance of streams
	Wild, Scenic, and Recreational Rivers	6 NYCRR 666	Regulations for administration and management.
	Floodplains	6 NYCRR 502	Contains floodplain management criteria for state projects.
National Historical Preservation Act 16 USC Section 469	Preservation of archaeological and historical data	36 CFR Part 65	Action to recover and preserve artifacts.
National Historic Preservation Act Section 106 (16 USC 470)	Historic landmarks, property, or projects owned or controlled by federal agencies	36 CFR Part 800	Preserve historic property; minimize harm to National Historic Landmarks.
Endangered Species Act of 1973 16 USC 1531, 661	Endangered and Threatened Species	50 CFR Part 200, 402 33 CFR Parts 320-330	Determine presence and conservation of endangered species.
Clean Water Act Section 404	Wetland Protection	40 CFR Parts 230 33 CFR Parts 320-330	Action to prohibit discharge into wetlands.

Table 13-2 Location-Specific ARARs, TBCs and Other Guidance			
Act/Authority	Criteria/Issues	Citation	Brief Description
Clean Water Act Part 6 Appendix A	Wetland Protection	40 CFR Part 6 Appendix A, section 4	Avoid adverse effects, minimize potential harm, preserve, and enhance wetlands.
Floodplain Management	Executive Order No. 11988	40 CFR 6.302 (b) (2005)	Regulates activities in a floodplain.

Table 13-3 Action-Specific ARARS, TBCs and Other Guidance

Act/Authority	Criteria/Issues	Citation	Brief Description
Lockport City Code	Demolition of Buildings	Chapter 68	Involves permitting and requirements for removal of buildings and structures.
	Environmental Quality Review	Chapter 92	General regulations regarding environmental projects conducted within the city; requires enforcement of 6 NYCRR 617
	Noise	Chapter 125	Places restrictions on unnecessary noise during certain time periods.
	Parks	Chapter 129	Regulates various activities conducted in city parks.
	Sewers	Chapter 150	Regulates discharge of waters to city sewers.
	Streets and Sidewalks	Chapter 158	Regulates alterations of roads and sidewalks including excavation, widening, etc.
	Trees	Chapter 176	Regulates cutting down and planting trees on public land.
	Vehicles and Traffic	Chapter 183	Places restrictions on truck traffic throughout the city and defines weight limits on certain streets.
	Water	Chapter 185	Places restrictions on access and use of city water mains.
New York State Vehicle and Traffic Law, Article 386; Environmental Conservation Law, Articles 3 and 19	Noise from Heavy Motor Vehicles	6 NYCRR 450	Defines maximum acceptable noise levels.
Environmental Conservation Law, Articles 3 and 19	Prevention and Control of Air Contaminants and Air Pollution	6 NYCRR 200-202	Establishes general provisions and requires construction and operation permits for emission of air pollutants.

Table 13-3 Action-Specific ARARS, TBCs and Other Guidance

Act/Authority	Criteria/Issues	Citation	Brief Description
Environmental Conservation Law, Article 15; also Public Health Law Articles 1271 and 1276 (Part 288 only)	Air Quality Classifications and Standards	6 NYCRR 256, 257	Part 256: New York Ambient Air quality Classification System; Part 257: Air quality standards for various pollutants including particulates and non-methane hydrocarbons.
Environmental Conservation Law, Articles 1, 3, 8, 19, 23, 27, 52, 54, and 70	Solid Waste Management Facilities	6 NYCRR 360	360-1: General provisions: includes identification of “beneficial use” potentially applicable to non-hazardous oily waste/soil (360-1.15); 360-2: Regulates construction and operation of landfills, including construction and demolition debris landfills.
New York Waste Transport Permit Regulations	Permitting Regulations, Requirements and Standards for Transport	6 NYCRR 364	The collection, transport, and delivery of regulated waste, originating or terminating at a location within New York, will be governed in accordance with Part 364.
Environmental Conservation Law, Articles 3, 19, 23, 27, and 70	Hazardous Waste Management System - General	6 NYCRR 370	Provides definition of terms and general standards applicable to 6 NYCRR 370 - 374, 376.
	Identification and Listing of Hazardous Waste	6 NYCRR 371	Identifies characteristic hazardous waste (PCBs) and lists specific wastes.
	Hazardous Waste Manifest System and Related Standards	6 NYCRR 372	Establishes manifest system and record keeping standards for generators and transporters of hazardous waste and for treatment, storage, and disposal facilities.

Table 13-3 Action-Specific ARARS, TBCs and Other Guidance

Act/Authority	Criteria/Issues	Citation	Brief Description
	Hazardous Waste Treatment, Storage, and Disposal Facility Permitting Requirements	6 NYCRR 373	Regulates treatment, storage, and disposal of hazardous waste.
	Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities	6 NYCRR 374	Subpart 374-1 establishes standards for the management of specific hazardous wastes (Subpart 374-2 establishes standards for the management of used oil).
Environmental Conservation Law, Articles 1, 3, 27, and 52; Administrative Procedures Act, Articles 301 and 305.	Inactive Hazardous Waste Disposal Site	6 NYCRR 375	Identifies process for investigation and remedial action at state funded Registry site; provides exception from NYSDEC permits;
Environmental Conservation Law, Articles 3 and 27.	Land Disposal Restrictions	6 NYCRR 376	Identifies hazardous wastes that are restricted from land disposal; Defines treatment standards for hazardous waste.
New York Environmental Quality Review Regulations		6 NYCRR 617	Implements provisions of State Environmental Quality Review Act.
Implementation of SPDES Program in New York	General Permit for Stormwater	6 NYCRR 750–758	Regulates permitted releases into waters of the state.
Primary and Principal Aquifer Determinations (5/87)		NYSDEC TOGS 2.1.3	Provides guidance on determining water supply aquifers in upstate New York.

Table 13-3 Action-Specific ARARS, TBCs and Other Guidance

Act/Authority	Criteria/Issues	Citation	Brief Description
Environmental Justice and Permitting	Environmental Justice	Commissioner Policy 29	Policy incorporates environmental justice concerns into NYSDEC's public participation provisions and application of the State Environmental Quality Review Act (SEQR).
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and Superfund Amendments and Reauthorization Act of 1986	National Contingency Plan	40 CFR 300, Subpart E	Outlines procedures for remedial actions and for planning and implementing off-site removal actions.
Occupational Safety and Health Act	Worker Protection	29 CFR 1904, 1910, and 1926	Specifies minimum requirements to maintain worker health and safety during hazardous waste operations; Includes training requirements and construction safety requirements.
Executive Order	Delegation of Authority	Executive Order 12316 and Coordination with Other Agencies	Delegates authority under CERCLA and the NCP to federal agencies.
Toxic Substances Control Act	Rules for Controlling PCBs	40 CFR 761	Provides guidance on storage and disposal of PCB-contaminated materials.
RCRA	Criteria for Municipal Solid Waste Landfills	40 CFR 258	Establishes minimum national criteria for management of non-hazardous waste.
	Hazardous Waste Management System - General	40 CFR 260	Provides definition of terms and general standards applicable to 40 CFR 260 - 265, 268.

Table 13-3 Action-Specific ARARS, TBCs and Other Guidance

Act/Authority	Criteria/Issues	Citation	Brief Description
	Identification and Listing of Hazardous Waste	40 CFR 261	Identifies solid wastes that are subject to regulation as hazardous wastes.
	Standards Applicable to Generators of Hazardous Waste	40 CFR 262	Establishes requirements (e.g., EPA ID numbers and manifests) for generators of hazardous waste.
	Standards Applicable to Transporters of Hazardous Waste	40 CFR 263	Establishes standards that apply to persons transporting manifested hazardous waste within the United States.
	Standards Applicable to Owners and Operators of Treatment, Storage, and Disposal Facilities	40 CFR 264	Establishes the minimum national standards that define acceptable management of hazardous waste.
	Standards for Owners of Hazardous Waste Facilities	40 CFR 265	Establishes interim status standards for owners and operators of hazardous waste treatment, storage, and disposal facilities.
	Land Disposal Restrictions	40 CFR 268	Identifies hazardous wastes that are restricted from land disposal.
	Hazardous Waste Permit Program	40 CFR 270, 124	EPA administers hazardous waste permit program for CERCLA/Superfund Sites; Covers basic permitting, application, monitoring, and reporting requirements for off-site hazardous waste management facilities.
Clean Water Act	EPA Pretreatment Standards	40 CFR 403	Establishes responsibilities of federal, state, and local government to implement national pretreatment standards to control pollutants that pass through to a POTW
Uniform Relocation	Resident Relocation	49 CFR 24	Federal rules for real property

Table 13-3 Action-Specific ARARS, TBCs and Other Guidance			
Act/Authority	Criteria/Issues	Citation	Brief Description
Assistance and Real Property Acquisition Act of 1970	and Property Acquisition		acquisition, for resident relocation, for compensation of moving and related expenses and for replacement housing.

Key:

- CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act.
- CFR = Code of Federal Regulations.
- EPA = (United States) Environmental Protection Agency.
- NYCRR = New York Codes, Rules and Regulations.
- NYSDEC = New York State Department of Environmental Conservation.
- OSHA = Occupational Safety and Health Administration.
- OU = Operable Unit.
- PCB = Polychlorinated biphenyl.
- PCE = Perchloroethylene.
- POTW = Publicly Owned Treatment Works.
- RCRA = Resource Conservation and Recovery Act.
- SCG = Standards, criteria, and guidelines.
- SEQR = State Environmental Quality Review Act
- SPDES = State Pollutant Discharge Elimination System.
- TCE = Trichloroethylene.
- TOGS = Technical and Operational Guidance Series.

**Table 14 Cost Estimate for Alternative 2a - Capping, Institutional Controls and Long Term Monitoring,
Eighteenmile Creek Corridor Site, Lockport, New York**

Description		Comments	Quantity	Units	Unit Cost	Cost
Capital Costs						
Work Plan / Final Report	Includes submittals, meetings	1	LS	\$27,400	\$27,400	
Institutional Controls	Environmental Easements	1	LS	\$54,800	\$54,800	
Site Preparation and Engineering Controls						
Mobilization/Demobilization	Include site prep, trailers, staging ,etc. and demobilization.	1	LS	\$54,800	\$54,800	
Health and Safety requirements	Officer; assume on-site 100% of project duration	65	Day	\$900	\$58,500	
Community Air Monitoring	Particulate meters	4	Ea	\$8,300	\$33,200	
Decontamination Pad & Containment	For equipment, personnel, and departing site vehicles	1	Setups	\$3,300	\$3,300	
Surveying	2-person crew @ \$100/hr, 8hr/day; assume 50% of project duration	33	Day	\$1,800	\$58,500	
Traffic Control (Labor)	For roads adjacent to the residential properties, including Water St. Assume 1 person for 25% of project duration	16	Day	\$700	\$11,400	
Remove / Relocate Existing Temporary Structures	Move sheds, pools, etc.	1	LS	\$27,400	\$27,400	
Site Clearing						
Cut and chip heavy trees	Large trees and dense vegetation found along the creek banks; Assume 50% of entire property surface area	1	Acre	\$15,400	\$17,400	
Grub stumps and remove - heavy	Large trees and dense vegetation found along the creek banks; Assume 50% of entire property surface area	1	Acre	\$8,275	\$9,300	
Staging Area Construction	(Staging area construction costs assumed to part of OU2 construction costs)					
Soil Removal for Grading Purposes (10% of Volumes from Alternative 3)						
Soil Excavation	Hydraulic Excavator, 2 C.Y. bucket; 165 C.Y./hr	580	BCY	\$1.92	\$1,200	
Material Transportation On-site (from excavation to staging area)	12 CY Dump truck, 0.5 mi cycle, 15 MPH ave, 15 mins. Wait/Ld/Uld	650	LCY	\$3.60	\$2,400	
Disposal Sampling	PCBs, metals and TCLP metals analysis	1	EA	\$510	\$600	
Transport to Disposal Facility (Non-haz)	assumes 28 tons/load transport to Chaffee Landfill in Chaffee, NY	720	Ton	\$14.00	\$10,100	
Disposal at Disposal Facility (Non-haz)	Non-hazardous material	720	Ton	\$28.00	\$20,200	
Transport to Disposal Facility (Haz)	assumes transport of material from Eighteenmile Creek to Model City, NY	150	Ton	\$27.00	\$4,100	
Disposal at Disposal Facility (Haz)	Hazardous material either for PCBs or Lead	150	Ton	\$181.00	\$27,200	

**Table 14 Cost Estimate for Alternative 2a - Capping, Institutional Controls and Long Term Monitoring,
Eighteenmile Creek Corridor Site, Lockport, New York**

Description		Comments	Quantity	Units	Unit Cost	Cost
Containment (Capping)						
High Visibility Demarcation Layer			97,900	SF	\$0.30	\$29,400
Clean soil	Total of 2' thick over capping areas, including 6" of topsoil for planting		8,340	LCY	\$27.00	\$225,200
Haul Soil	12 CY dump truck, 20 miles cycle, 35 MPH ave, 15 mins Wait/Ld./Uld		8,340	LCY	\$10.10	\$84,300
Spread Soil	Spread dumped material, by dozer, no compaction; incl cut-back volume		8,340	LCY	\$2.26	\$18,900
Compact Soil	12" lifts, 2 passes, vibrating roller; incl cut-back volume		7,252	ECY	\$1.17	\$8,500
Finish grading, large area	Steep slopes, large quantities		98	MSF	\$28.00	\$2,800
Hydroseeding large areas	Mechanical Seeding, 44 lbs/MSY		10,878	SY	\$0.52	\$5,700
Capital Cost Subtotal:						\$796,600
Adjusted Capital Cost Subtotal for Niagara Falls, New York Location Factor (0.991):						\$789,500
25% Legal, administrative, engineering fees, construction management:						\$197,400
25% Contingencies:						\$246,800
Capital Cost Total (in 2013 Dollars):						\$1,234,000
Periodic Costs (Every 5 Years)						
5-yr Review, Data Evaluation, and Reporting	#REF!		80	HR	\$110	\$8,800
Cover Maintenance (replacing soil, demarcation layer)	Assume 5% of initial cover cost		1	LS	\$18,800	\$18,800
Institutional Controls	Maintain / Update Documentation		1	LS	\$27,400	\$27,400
Periodic Cost Subtotal:						\$55,000
Adjusted Capital Cost Subtotal for Niagara Falls, New York Location Factor (0.991):						\$54,600
10% Legal and Administrative Fees:						\$5,500
25% Contingencies:						\$15,100
Periodic Cost Total:						\$75,200
30-year Present Worth of Periodic Costs (in 2013 Dollars):						\$163,000
2013 Total Present Worth Cost:						\$1,397,000

Notes:

1. Assume staging area developed as part of OU2 construction will be used.

2. Estimated Volume of Hazardous Fill and Soil (143 Water St. parcel)

1,000 BCY

3. Estimated Volume of Fill and Non-Hazardous Soils (remaining parcels)

4,800 BCY

**Table 14 Cost Estimate for Alternative 2a - Capping, Institutional Controls and Long Term Monitoring,
Eighteenmile Creek Corridor Site, Lockport, New York**

Description	Comments	Quantity	Units	Unit Cost	Cost
4. Estimated Surface Area of Hazardous Material		14,100	SF		
5. Estimated Surface Area of Non-hazardous Material and Cover Area		83,800	SF		
7. Estimated Length of Creek adjacent to properties		1,000	LF		
8. Construction Duration (Assuming 5 day work week)					
Total Project Time		3 mo		Schedule reduced from 2009	
		1	construction season		
9. Conversion from BCY to LCY (dewatered material):		1.15	LCY/BCY		
10. Conversion from BCY to tons (dewatered material):		1.5	tons/BCY		
11. Conversion from BCY to LCY (saturated material):		1.12	LCY/BCY		
12. Conversion from BCY to tons (saturated material):		1.7	tons/BCY		
13. 30-year present worth of costs assumes 7 % discount rate as per "A Guide to Developing and Documenting Cost Estimates During the Feasibility Study" (EPA 540-R-00-002 August 2000).					
14. Costs presented are based on conventional contracting methods.					
15. Costs assume no soil removal to adjust for grading during the installation of the containment cap.					
16. RS Means Historical Cost Index were used to escalate the 2008/2009 costs to 2013 costs:					

Year	Index #
2007	169.4
2008	180.4
2009	180.1
2010	183.5
2011	191.2
2012	194.6
2013	197.6

Key:
BCY = Bank cubic yards.
EA = Each.
ECY = Embankment cubic yards.
HR = Hour.
kGal = Thousand gallons.
LCY = Loose cubic yards.
LF = Linear feet.
LS = Lump sum.
Mo = Month.
SF = Square feet.
SY = Square yards.
WWTP = Wastewater treatment plant.

Table 15 Cost Estimate for Alternative 2b - Capping, Institutional Controls, Long Term Monitoring and Permanent Relocation, Eighteenmile Creek Corridor Site, Lockport, New York

Description		Comments	Quantity	Units	Unit Cost	Cost
Capital Costs						
Work Plan / Final Report	Includes submittals, meetings	1	LS	\$27,400	\$27,400	
Institutional Controls	Environmental Easements	1	LS	\$54,800	\$54,800	
Site Preparation and Engineering Controls						
Mobilization/Demobilization	Include site prep, trailers, staging ,etc. and demobilization.	1	LS	\$54,800	\$54,800	
Health and Safety requirements	Officer; assume on-site 100% of project duration	65	Day	\$900	\$58,500	
Community Air Monitoring	Particulate meters	4	Ea	\$8,300	\$33,200	
Decontamination Pad & Containment	For equipment, personnel, and departing site vehicles	1	Setups	\$3,300	\$3,300	
Surveying	2-person crew @ \$100/hr, 8hr/day; assume 50% of project duration	33	Day	\$1,800	\$58,500	
Traffic Control (Labor)	For roads adjacent to the residential properties, including Water St. Assume 1 person for 25% of project duration	16	Day	\$700	\$11,400	
Remove / Relocate Existing Temporary Structures	Move sheds, pools, etc.	1	LS	\$27,400	\$27,400	
Site Clearing						
Cut and chip heavy trees	Large trees and dense vegetation found along the creek banks; Assume 50% of entire property surface area	1	Acre	\$15,400	\$17,400	
Grub stumps and remove - heavy	Large trees and dense vegetation found along the creek banks; Assume 50% of entire property surface area	1	Acre	\$8,275	\$9,300	
Staging Area Construction	(Staging area construction costs assumed to part of OU2 construction costs)					
Soil Removal for Grading Purposes (10% of Volumes from Alternative 3)						
Soil Excavation	Hydraulic Excavator, 2 C.Y. bucket; 165 C.Y./hr	580	BCY	\$1.92	\$1,200	
Material Transportation On-site (from excavation to staging area)	12 CY Dump truck, 0.5 mi cycle, 15 MPH ave, 15 mins. Wait/Ld/Uld	650	LCY	\$3.60	\$2,400	
Disposal Sampling	PCBs, metals and TCLP metals analysis	1	EA	\$510	\$600	
Transport to Disposal Facility (Non-haz)	assumes 28 tons/load transport to Chaffee Landfill in Chaffee, NY	720	Ton	\$14.00	\$10,100	
Disposal at Disposal Facility (Non-haz)	Non-hazardous material	720	Ton	\$28.00	\$20,200	
Transport to Disposal Facility (Haz)	assumes transport of material from Eighteenmile Creek to Model City, NY	150	Ton	\$27.00	\$4,100	
Disposal at Disposal Facility (Haz)	Hazardous material either for PCBs or Lead	150	Ton	\$181.00	\$27,200	

Table 15 Cost Estimate for Alternative 2b - Capping, Institutional Controls, Long Term Monitoring and Permanent Relocation, Eighteenmile Creek Corridor Site, Lockport, New York

Description	Comments	Quantity	Units	Unit Cost	Cost
Containment (Capping)					
High Visibility Demarcation Layer		97,900	SF	\$0.30	\$29,400
Clean soil	Total of 2' thick over capping areas, including 6" of topsoil for planting	8,340	LCY	\$27.00	\$225,200
Haul Soil	12 CY dump truck, 20 miles cycle, 35 MPH ave, 15 mins Wait/Ld./Uld	8,340	LCY	\$10.10	\$84,300
Spread Soil	Spread dumped material, by dozer, no compaction; incl cut-back volume	8,340	LCY	\$2.26	\$18,900
Compact Soil	12" lifts, 2 passes, vibrating roller; incl cut-back volume	7,252	ECY	\$1.17	\$8,500
Finish grading, large area	Steep slopes, large quantities	98	MSF	\$28.00	\$2,800
Hydroseeding large areas	Mechanical Seeding, 44 lbs/MSY	10,878	SY	\$0.52	\$5,700
Capital Cost Subtotal:					\$796,600
Adjusted Capital Cost Subtotal for Niagara Falls, New York Location Factor (0.991):					\$789,500
25% Legal, administrative, engineering fees, construction management:					\$197,400
25% Contingencies:					\$246,800
Capital Cost Total (in 2013 Dollars):					\$1,234,000
Additional Capital Costs for Resident Relocation					
Property Acquisition					
Property Acquisition	For 5 residential properties and four vacant lots	1	LS	\$170,160	\$170,160
Relocation Costs for 5 residential properties					
Relocation benefits	Assume \$22,500 for each of the 5 residential properties	5	EA	\$22,500	\$112,500
Moving Costs	Assume \$6,000 for each of the 5 residential properties	5	EA	\$6,000	\$30,000
Utility hook-ups	Assume \$500 for each of the 5 residential properties	5	EA	\$500	\$2,500
Resident Relocation Subtotal:					\$145,000
Corps Expenses (Acquisition and relocation of 5 residential properties and acquisition of 4 vacant lots)					
Appraisals	Assume \$6,000 for contract costs and \$5,000 for labor costs	1	LS	\$11,000	\$11,000
Title	Title costs during Preliminary, updating and closing stages. Includes \$11,500 for contracts and \$17,000 for labor costs	1	LS	\$28,500	\$28,500
Attorney Travel	Includes 5 trips for 9 closings; airfare, rental car and hotel; assume \$1,000/trip	5	Trip	\$1,000	\$5,000

Table 15 Cost Estimate for Alternative 2b - Capping, Institutional Controls, Long Term Monitoring and Permanent Relocation, Eighteenmile Creek Corridor Site, Lockport, New York

Description		Comments	Quantity	Units	Unit Cost	Cost
Realty specialist		Preparation of offer to sell, prepare comparable Housing Survey package, negotiations, prepare title contract and manage project. Assume \$6,000 per residential property and \$3,000 per vacant lot	1	LS	\$42,000	\$42,000
Realty Specialist Travel		Includes 5 trips for site inspections, present offers to sell and conduct comparable housing survey; Assume \$1,000 per residential property	5	EA	\$1,000	\$5,000
Supervision			1	LS	\$2,500	\$2,500
Clerical			1	LS	\$3,000	\$3,000
Budget			1	LS	\$3,000	\$3,000
Transfer Property to the state			1	LS	\$10,000	\$10,000
Project Close-out			1	LS	\$5,000	\$5,000
5% Contingency			1	LS	\$5,750	\$5,750
M&S Fee			1	LS	\$2,415	\$2,415
Corps Expense Subtotal:						\$123,165
Additional Capital Cost for Resident Relocation Total (in 2013 Dollars):						\$438,325
Water Street Demolition Costs						
Labor for Duration of 4 Weeks						
Response Manager		Assume 1 Manager for 20 days @ 10 hours/day (8 hours regular and 2 hours Saturday/overtime) and 60 offsite hours	260	HR	\$62.02	\$16,125.20
Cleanup Technician		Assume 2 Technicians for 20 days @ 8 hours/day regular	320	HR	\$36.93	\$11,818
Cleanup Technician Saturday/Overtime		Assume 2 Technicians for 20 days @ 2 hours overtime	80	HR	\$41.64	\$3,331
Equipment Operator		Assume 1 Operator for 20 days @ 8 hours/day regular	160	HR	\$58.82	\$9,411
Equipment Operator Saturday/Overtime		Assume 1 Operator for 20 days @ 2 hours overtime	40	HR	\$64.45	\$2,578
Field Accountant		Assume 1 Accountant for 20 days @ 8 hours/day regular and 25 hours offsite hours	185	HR	\$38.43	\$7,110
Field Accountant Saturday/Overtime		Assume 1 Accountant for 20 days @ 2 hours overtime	40	HR	\$52.68	\$2,107
T&D Coordinator		Assume 1 coordinator for 10 offsite hours	10	HR	\$55.44	\$554
IH-Safety		Assume 1 safety coordinator for 10 offsite hours	10	HR	\$42.63	\$426
Labor Subtotal:						\$53,461

Table 15 Cost Estimate for Alternative 2b - Capping, Institutional Controls, Long Term Monitoring and Permanent Relocation, Eighteenmile Creek Corridor Site, Lockport, New York

Description	Comments	Quantity	Units	Unit Cost	Cost
Equipment for Duration of 4 Weeks					
Pick up Truck	Assume 3 trucks will be rented for 20 days	60	Days	\$37.10	\$2,226
Computer	Assume 2 computers will be rented for 20 days	40	Days	\$7.43	\$297
Printers	Assume 2 Printers will be rented for 20 days	40	Days	\$0.10	\$4
Cell Phones	Assume 2 Cell Phones will be rented for 20 days	40	Days	\$0.10	\$4
Equipment Subtotal:					\$2,531
ODCs					
Hotel	Includes weekends	140	Days	\$77.00	\$10,780
Per Diem	Includes weekends	140	Days	\$51.00	\$7,140
Personnel Mobilization	Mobilization for 5 people; Assume \$400/person	5	EA	\$400.00	\$2,000
Personnel Demobilization	Demobilization for 5 people; Assume \$400/person	5	EA	\$400.00	\$2,000
Project Support Facilities	Assume project support facilities will be needed for one	1	Mo	\$2,250.00	\$2,250
Site Security	Assume site security needed for 118 hours/week	472	HR	\$25.00	\$11,800
Asbestos/Lead Survey	Assume Asbestos surveys will be needed for each of the 5 hours	5	EA	\$1,500.00	\$7,500
Asbestos Abatement Contingency	Assume that abatement activities might be necessary at one or more homes. A contingency of \$30,000 has been added.	1	LS	\$30,000.00	\$30,000
Excavator with grapple	Assume excavator will be needed for one month	1	Mo	\$7,000.00	\$7,000
Skid Steer Loader	Assume loader will be needed for one month	1	Mo	\$2,500.00	\$2,500
Mason Dump	Assume mason dump will be needed for one month	1	Mo	\$2,500.00	\$2,500
Chipper	Assume chipper will be needed for one month	1	Mo	\$2,500.00	\$2,500
Backfill	For filling in excavated areas	961	Tons	\$15.00	\$14,415
Top Soil	For filling in excavated areas	144	Tons	\$22.00	\$3,168
Hydroseeding		7,090	SF	\$0.16	\$1,134
Fence Installation plus gate	Assume \$1500 for gate	900	LF	\$20.00	\$19,500
Diesel Fuel		4	Weeks	\$500.00	\$2,000
C&D debris T&D		640	Tons	\$48.00	\$30,720
Debris Analytical		1	LS	\$1,500.00	\$1,500
Other ODCs		1	LS	\$10,000.00	\$10,000

Table 15 Cost Estimate for Alternative 2b - Capping, Institutional Controls, Long Term Monitoring and Permanent Relocation, Eighteenmile Creek Corridor Site, Lockport, New York

Description	Comments	Quantity	Units	Unit Cost	Cost
ODCs Subtotal:					\$170,407
G&A					\$10,055
Total Cleanup Contractor Cost Subtotal:					\$236,454
Remedial Support Team 2:					\$49,000
Subtotal ExtraMural Costs:					\$285,454
Extramural Cost Contingency (20%):					\$57,091
Total Project Ceiling (in 2013 Dollars):					\$342,545
Periodic Costs (Every 5 Years)					
5-yr Review, Data Evaluation, and Reporting		80	HR	\$110	\$8,800
Cover Maintenance (replacing soil, demarcation layer)	Assume 5% of initial cover cost	1	LS	\$18,800	\$18,800
Institutional Controls	Maintain / Update Documentation	1	LS	\$27,400	\$27,400
Periodic Cost Subtotal:					\$55,000
Adjusted Capital Cost Subtotal for Niagara Falls, New York Location Factor (0.991):					\$54,600
10% Legal and Administrative Fees:					\$5,500
25% Contingencies:					\$15,100
Periodic Cost Total:					\$75,200
30-year Present Worth of Periodic Costs (in 2013 Dollars):					\$163,000
2013 Total Present Worth Cost:					\$2,177,870

Notes:

1. Assume staging area developed as part of OU2 construction will be used.

2. Estimated Volume of Hazardous Fill and Soil (143 Water St. parcel) 1,000 BCY

3. Estimated Volume of Fill and Non-Hazardous Soils (remaining parcels) 4,800 BCY

4. Estimated Surface Area of Hazardous Material 14,100 SF

5. Estimated Surface Area of Non-hazardous Material and Cover Area 83,800 SF

7. Estimated Length of Creek adjacent to properties 1,000 LF

8. Construction Duration (Assuming 5 day work week)

Assume Mob/Demob Time 2 mo / construction season

Max Excavation Rate 165 CY/hr

Assumed Effective Production Rate 75 %

Effective Excavation Rate 1,238 CY/day

Table 15 Cost Estimate for Alternative 2b - Capping, Institutional Controls, Long Term Monitoring and Permanent Relocation, Eighteenmile Creek Corridor Site, Lockport, New York

Description	Comments	Quantity	Units	Unit Cost	Cost
		6,188 CY/ week			
		24,750 CY/mo			
Disposal Rate; Assume 15 trucks / day, 28 tons per truck		420 tons/day			
		2,100 tons/week			
		8,400 tons/mo			
Time based on excavation/backfill		0.04 mo			
Time based on disposal		0.18 mo			
Excavation, backfill, disposal, and cover		2 mo			
Mob/ Demob Time		2 mo			
Bank Stabilization/Site Restoration Time		2 mo			
Total Project Time		3 mo		Schedule reduced from 2009	
		1 construction season			
9. Conversion from BCY to LCY (dewatered material):		1.15 LCY/BCY			
10. Conversion from BCY to tons (dewatered material):		1.5 tons/BCY			
11. Conversion from BCY to LCY (saturated material):		1.12 LCY/BCY			
12. Conversion from BCY to tons (saturated material):		1.7 tons/BCY			
13. 30-year present worth of costs assumes 7 % discount rate as per "A Guide to Developing and Documenting Cost Estimates During the Feasibility Study" (EPA 540-R-00-002 August 2000).					
14. Costs presented are based on conventional contracting methods.					
15. Costs assume no soil removal to adjust for grading during the installation of the containment cap.					
16. RS Means Historical Cost Index were used to escalate the 2008/2009 costs to 2013 costs:		Year	Index #		
		2007	169.4		
		2008	180.4		
		2009	180.1		
		2010	183.5		
		2011	191.2		
		2012	194.6		
		2013	197.6		
Key:					
BCY = Bank cubic yards.					
EA = Each.					
ECY = Embankment cubic yards.					
HR = Hour.					
kGal = Thousand gallons.					
LCY = Loose cubic yards.					
LF = Linear feet.					
LS = Lump sum.					
Mo = Month.					
SF = Square feet.					
SY = Square yards.					
WWTP = Wastewater treatment plant.					

Table 16 Cost Estimate for Alternative 3a - Complete Excavation and Off-site Disposal, Eighteenmile Creek Corridor Site, Lockport, New York

Description		Comments	Quantity	Units	Unit Cost	Cost
Capital Costs						
Work Plan / Final Report		Includes submittals, meetings	1	LS	\$27,400	\$27,400
Site Preparation and Engineering Controls						
Mobilization/Demobilization		Include site prep, trailers, staging ,etc. and demobilization. Assume 2.5 % of overall capital costs	1	LS	\$57,500	\$57,500
Health and Safety requirements		Officer; assume on-site 100% of project duration	130	Day	\$900	\$117,000
Community Air Monitoring		Particulate meters	4	Ea	\$8,300	\$33,200
Decontamination Pad & Containment		For equipment, personnel, and departing site vehicles	1	Setups	\$3,300	\$3,300
Surveying		2-person crew @ \$100/hr, 8hr/day; assume 50% of project duration	65	Day	\$1,800	\$117,000
Traffic Control (Labor)		For roads adjacent to the residential properties, including Water St. Assume 1 person for 25% of project duration	33	Day	\$700	\$22,800
Site Clearing						
Cut and chip heavy trees		Large trees and dense vegetation found along the creek banks; Assume 50% of entire property surface area	1	Acre	\$15,400	\$17,400
Grub stumps and remove - heavy		Large trees and dense vegetation found along the creek banks; Assume 50% of entire property surface area	1	Acre	\$8,275	\$9,300
Remove / Relocate Existing Temporary Structures		Sheds, pools, etc.	1	LS	\$27,400	\$27,400
Staging Area Construction		(Staging area construction costs assumed to part of OU2 construction costs)				
Soil Removal						
Soil Excavation		Hydraulic Excavator, 2 C.Y. bucket; 165 C.Y./hr	5,800	BCY	\$1.92	\$11,200
Material Transportation On-site (from excavation to staging area)		12 CY Dump truck, 0.5 mi cycle, 15 MPH ave, 15 mins. Wait/Ld/Uld	6,670	LCY	\$3.60	\$24,100
Verification Sampling		PCBs and metals analysis, assumes 24-hr turnaround (markup of 200%)	157	EA	\$300	\$47,000
Disposal Sampling		PCBs, metals and TCLP metals analysis	10	EA	\$510	\$5,100
Transport to Disposal Facility (Non-haz)		assumes 28 tons/load transport to Chaffee Landfill in Chaffee, NY	7,200	Ton	\$14.00	\$100,800
Disposal at Disposal Facility (Non-haz)		Non-hazardous material	7,200	Ton	\$28.00	\$201,600
Transport to Disposal Facility (Haz)		assumes transport of material from Eighteenmile Creek to Model City, NY	1,500	Ton	\$27.00	\$40,500
Disposal at Disposal Facility (Haz)		Hazardous material either for PCBs or Lead	1,500	Ton	\$181	\$271,500

Table 16 Cost Estimate for Alternative 3a - Complete Excavation and Off-site Disposal, Eighteenmile Creek Corridor Site, Lockport, New York

Description	Comments	Quantity	Units	Unit Cost	Cost
Backfill and Site Restoration (of Excavated Areas)					
Fill	Select Fill for shoulders and embankments; Material incl. 6" of top soil at surface	6,670	LCY	\$27.00	\$180,100
Haul Fill	12 CY dump truck, 20 miles cycle, 35 MPH ave, 15 mins Wait/Ld./Uld	6,670	LCY	\$10.10	\$67,400
Spread Fill	Spread dumped material, by dozer, no compaction; incl cut-back volume	6,670	LCY	\$2.26	\$15,100
Compact Fill	12" lifts, 2 passes, vibrating roller; incl cut-back volume	5,800	ECY	\$1.17	\$6,800
Finish grading, large area	Steep slopes, large quantities	98	MSF	\$28.00	\$2,800
Hydroseeding large areas	Mechanical Seeding, 44 lbs/MSY	10,878	SY	\$0.52	\$5,700
Plantings (Trees)	Assume Norway Maple is representative (Based on SRI); 1-1/2" to 2" Cal; 25% of excavated areas	39	Ea	\$220	\$8,700
Replace / Relocate Existing Temporary Structures		1	LS	\$27,400	\$27,400
		Capital Cost Subtotal:			\$1,448,100
Adjusted Capital Cost Subtotal for Niagara Falls, New York Location Factor (0.991):					\$1,435,067
25% Legal, administrative, engineering fees, construction management:					\$358,800
25% Contingencies:					\$448,500
Capital Cost Total (in 2013 Dollars):					\$2,243,000
2013 Total Present Worth Cost:					\$2,243,000

Notes:

1. Assume staging area developed as part of OU2 construction will be used.

2. Estimated Volume of Hazardous Fill and Soil (143 Water St. parcel)

1,000 BCY

3. Estimated Volume of Fill and Non-Hazardous Soils (remaining parcels)

4,800 BCY

4. Estimated Surface Area of Hazardous Material (estimated based on extent of contamination shown on Figure 4-1)

14,100 SF

5. Estimated Surface Area of Non-hazardous Material (estimated based on extent of contamination shown on Figure 4-1)

83,800 SF

6. Estimated Length of Creek adjacent to properties

1,000 LF

7. Assume verification sampling grid spacing:

25 ft

8. Construction Duration (Assuming 5 day work week)

Total Project Time

6 mo Not adjusted from 2009 Estimate
1 construction season

9. Conversion from BCY to LCY (dewatered material):

1.15 LCY/BCY

10. Conversion from BCY to tons (dewatered material):

1.5 tons/BCY

11. Conversion from BCY to LCY (saturated material):

1.12 LCY/BCY

Table 16 Cost Estimate for Alternative 3a - Complete Excavation and Off-site Disposal, Eighteenmile Creek Corridor Site, Lockport, New York

Description	Comments	Quantity	Units	Unit Cost	Cost
12. Conversion from BCY to tons (saturated material):		1.7	tons/BCY		
13. 30-year present worth of costs assumes 7 % discount rate as per "A Guide to Developing and Documenting Cost Estimates During the Feasibility Study" (EPA 540-R-00-002 August 2000).					
14. Costs presented are based on conventional contracting methods.					
15. Assume tree planting grid spacing every		25	ft		
16. RS Means Historical Cost Index were used to escalate the 2008/2009 costs to 2013 costs:			Year	Index #	
			2007	169.4	
			2008	180.4	
			2009	180.1	
			2010	183.5	
			2011	191.2	
			2012	194.6	
			2013	197.6	

Key:

BCY = Bank cubic yards.

EA = Each.

ECY = Embankment cubic yards.

HR = Hour.

kGal = Thousand gallons.

LCY = Loose cubic yards.

LF = Linear feet.

LS = Lump sum.

Mo = Month.

MSF = 1000 square feet.

OU = Operable Unit.

SF = Square feet.

SY = Square yards.

WWTP = Wastewater treatment plant.

Table 17 Cost Estimate for Alternative 3 - Complete Excavation, Off-site Disposal and Permanent Relocation, Eighteenmile Creek Corridor Site, Lockport, New York

Description	Comments	Quantity	Units	Unit Cost	Cost
Capital Costs					
Work Plan / Final Report	Includes submittals, meetings	1	LS	\$27,400	\$27,400
Site Preparation and Engineering Controls					
Mobilization/Demobilization	Include site prep, trailers, staging ,etc. and demobilization. Assume 2.5 % of overall capital costs	1	LS	\$57,500	\$57,500
Health and Safety requirements	Officer; assume on-site 100% of project duration	130	Day	\$900	\$117,000
Community Air Monitoring	Particulate meters	4	Ea	\$8,300	\$33,200
Decontamination Pad & Containment	For equipment, personnel, and departing site vehicles	1	Setups	\$3,300	\$3,300
Surveying	2-person crew @ \$100/hr, 8hr/day; assume 50% of project duration	65	Day	\$1,800	\$117,000
Traffic Control (Labor)	For roads adjacent to the residential properties, including Water St. Assume 1 person for 25% of project duration	33	Day	\$700	\$22,800
Site Clearing					
Cut and chip heavy trees	Large trees and dense vegetation found along the creek banks; Assume 50% of entire property surface area	1	Acre	\$15,400	\$17,400
Grub stumps and remove - heavy	Large trees and dense vegetation found along the creek banks; Assume 50% of entire property surface area	1	Acre	\$8,275	\$9,300
Remove / Relocate Existing Temporary Structures	Sheds, pools, etc.	1	LS	\$27,400	\$27,400
Staging Area Construction	(Staging area construction costs assumed to part of OU2 construction costs)				
Soil Removal					
Soil Excavation	Hydraulic Excavator, 2 C.Y. bucket; 165 C.Y./hr	5,800	BCY	\$1.92	\$11,200
Material Transportation On-site (from excavation to staging area)	12 CY Dump truck, 0.5 mi cycle, 15 MPH ave, 15 mins. Wait/Ld/Uld	6,670	LCY	\$3.60	\$24,100
Verification Sampling	PCBs and metals analysis, assumes 24-hr turnaround (markup of 200%)	157	EA	\$300	\$47,000
Disposal Sampling	PCBs, metals and TCLP metals analysis	10	EA	\$510	\$5,100
Transport to Disposal Facility (Non-haz)	assumes 28 tons/load transport to Chaffee Landfill in Chaffee, NY	7,200	Ton	\$14.00	\$100,800
Disposal at Disposal Facility (Non-haz)	Non-hazardous material	7,200	Ton	\$28.00	\$201,600
Transport to Disposal Facility (Haz)	assumes transport of material from Eighteenmile Creek to Model City, NY	1,500	Ton	\$27.00	\$40,500
Disposal at Disposal Facility (Haz)	Hazardous material either for PCBs or Lead	1,500	Ton	\$181	\$271,500

Table 17 Cost Estimate for Alternative 3 - Complete Excavation, Off-site Disposal and Permanent Relocation, Eighteenmile Creek Corridor Site, Lockport, New York

Description	Comments	Quantity	Units	Unit Cost	Cost
Backfill and Site Restoration (of Excavated Areas)					
Fill	Select Fill for shoulders and embankments; Material incl. 6" of top soil at surface	6,670	LCY	\$27.00	\$180,100
Haul Fill	12 CY dump truck, 20 miles cycle, 35 MPH ave, 15 mins Wait/Ld./Uld	6,670	LCY	\$10.10	\$67,400
Spread Fill	Spread dumped material, by dozer, no compaction; incl cut-back volume	6,670	LCY	\$2.26	\$15,100
Compact Fill	12" lifts, 2 passes, vibrating roller; incl cut-back volume	5,800	ECY	\$1.17	\$6,800
Finish grading, large area	Steep slopes, large quantities	98	MSF	\$28.00	\$2,800
Hydroseeding large areas	Mechanical Seeding, 44 lbs/MSY	10,878	SY	\$0.52	\$5,700
Plantings (Trees)	Assume Norway Maple is representative (Based on SRI); 1-1/2" to 2" Cal; 25% of excavated areas	39	Ea	\$220	\$8,700
Replace / Relocate Existing Temporary Structures		1	LS	\$27,400	\$27,400
			Capital Cost Subtotal:		\$1,448,100
Adjusted Capital Cost Subtotal for Niagara Falls, New York Location Factor (0.991):					\$1,435,067
25% Legal, administrative, engineering fees, construction management:					\$358,800
25% Contingencies:					\$448,500
Capital Cost Total (in 2013 Dollars):					\$2,243,000
Additional Capital Costs for Resident Relocation					
Property Acquisition					
Property Acquisition	For 5 residential properties and four vacant lots	1	LS	\$170,160	\$170,160
Relocation Costs for 5 residential properties					
Relocation benefits	Assume \$22,500 for each of the 5 residential properties	5	EA	\$22,500	\$112,500
Moving Costs	Assume \$6,000 for each of the 5 residential properties	5	EA	\$6,000	\$30,000
Utility hook-ups	Assume \$500 for each of the 5 residential properties	5	EA	\$500	\$2,500
Resident Relocation Subtotal:					\$145,000
Corps Expenses (Acquisition and relocation of 5 residential properties and acquisition of 4 vacant lots)					
Appraisals	Assume \$6,000 for contract costs and \$5,000 for labor costs	1	LS	\$11,000	\$11,000
Title	Title costs during Preliminary, updating and closing stages. Includes \$11,500 for contracts and \$17,000 for labor costs	1	LS	\$28,500	\$28,500
Attorney Travel	Includes 5 trips for 9 closings; airfare, rental car and hotel; assume \$1,000/trip	5	Trip	\$1,000	\$5,000

Table 17 Cost Estimate for Alternative 3 - Complete Excavation, Off-site Disposal and Permanent Relocation, Eighteenmile Creek Corridor Site, Lockport, New York

Description		Comments	Quantity	Units	Unit Cost	Cost
Realty specialist		Preparation of offer to sell, prepare comparable Housing Survey package, negotiations, prepare title contract and manage project. Assume \$6,000 per residential property and \$3,000 per vacant lot	1	LS	\$42,000	\$42,000
Realty Specialist Travel		Includes 5 trips for site inspections, present offers to sell and conduct comparable housing survey; Assume \$1,000 per residential property	5	EA	\$1,000	\$5,000
Supervision			1	LS	\$2,500	\$2,500
Clerical			1	LS	\$3,000	\$3,000
Budget			1	LS	\$3,000	\$3,000
Transfer Property to the state			1	LS	\$10,000	\$10,000
Project Close-out			1	LS	\$5,000	\$5,000
5% Contingency			1	LS	\$5,750	\$5,750
M&S Fee			1	LS	\$2,415	\$2,415
Corps Expense Subtotal:						\$123,165
Additional Capital Cost for Resident Relocation Total (in 2013 Dollars):						\$438,325
Water Street Demolition Costs						
Labor for Duration of 4 Weeks						
Response Manager		Assume 1 Manager for 20 days @ 10 hours/day (8 hours regular and 2 hours Saturday/overtime) and 60 offsite hours	260	HR	\$62.02	\$16,125.20
Cleanup Technician		Assume 2 Technicians for 20 days @ 8 hours/day regular	320	HR	\$36.93	\$11,818
Cleanup Technician Saturday/Overtime		Assume 2 Technicians for 20 days @ 2 hours overtime	80	HR	\$41.64	\$3,331
Equipment Operator		Assume 1 Operator for 20 days @ 8 hours/day regular	160	HR	\$58.82	\$9,411
Equipment Operator Saturday/Overtime		Assume 1 Operator for 20 days @ 2 hours overtime	40	HR	\$64.45	\$2,578
Field Accountant		Assume 1 Accountant for 20 days @ 8 hours/day regular and 25 hours offsite hours	185	HR	\$38.43	\$7,110
Field Accountant Saturday/Overtime		Assume 1 Accountant for 20 days @ 2 hours overtime	40	HR	\$52.68	\$2,107
T&D Coordinator		Assume 1 coordinator for 10 offsite hours	10	HR	\$55.44	\$554
IH-Safety		Assume 1 safety coordinator for 10 offsite hours	10	HR	\$42.63	\$426
Labor Subtotal:						\$53,461

Table 17 Cost Estimate for Alternative 3 - Complete Excavation, Off-site Disposal and Permanent Relocation, Eighteenmile Creek Corridor Site, Lockport, New York

Description	Comments	Quantity	Units	Unit Cost	Cost
Equipment for Duration of 4 Weeks					
Pick up Truck	Assume 3 trucks will be rented for 20 days	60	Days	\$37.10	\$2,226
Computer	Assume 2 computers will be rented for 20 days	40	Days	\$7.43	\$297
Printers	Assume 2 Printers will be rented for 20 days	40	Days	\$0.10	\$4
Cell Phones	Assume 2 Cell Phones will be rented for 20 days	40	Days	\$0.10	\$4
Equipment Subtotal:					\$2,531
ODCs					
Hotel	Includes weekends	140	Days	\$77.00	\$10,780
Per Diem	Includes weekends	140	Days	\$51.00	\$7,140
Personnel Mobilization	Mobilization for 5 people; Assume \$400/person	5	EA	\$400.00	\$2,000
Personnel Demobilization	Demobilization for 5 people; Assume \$400/person	5	EA	\$400.00	\$2,000
Project Support Facilities	Assume project support facilities will be needed for one month	1	Mo	\$2,250.00	\$2,250
Site Security	Assume site security needed for 118 hours/week	472	HR	\$25.00	\$11,800
Asbestos/Lead Survey	Assume Asbestos surveys will be needed for each of the 5 hours	5	EA	\$1,500.00	\$7,500
Asbestos Abatement Contingency	Assume that abatement activities might be necessary at one or more homes. A contingency of \$30,000 has been added.	1	LS	\$30,000.00	\$30,000
Excavator with grapple	Assume excavator will be needed for one month	1	Mo	\$7,000.00	\$7,000
Skid Steer Loader	Assume loader will be needed for one month	1	Mo	\$2,500.00	\$2,500
Mason Dump	Assume mason dump will be needed for one month	1	Mo	\$2,500.00	\$2,500
Chipper	Assume chipper will be needed for one month	1	Mo	\$2,500.00	\$2,500
Backfill	For filling in excavated areas	961	Tons	\$15.00	\$14,415
Top Soil	For filling in excavated areas	144	Tons	\$22.00	\$3,168
Hydroseeding		7,090	SF	\$0.16	\$1,134
Fence Installation plus gate	Assume \$1500 for gate	900	LF	\$20.00	\$19,500
Diesel Fuel		4	Weeks	\$500.00	\$2,000
C&D debris T&D		640	Tons	\$48.00	\$30,720
Debris Analytical		1	LS	\$1,500.00	\$1,500
Other ODCs		1	LS	\$10,000.00	\$10,000

Table 17 Cost Estimate for Alternative 3 - Complete Excavation, Off-site Disposal and Permanent Relocation, Eighteenmile Creek Corridor Site, Lockport, New York

Description	Comments	Quantity	Units	Unit Cost	Cost
ODCs Subtotal:					\$170,407
G&A					\$10,055
Total Cleanup Contractor Cost Subtotal:					\$236,454
Remedial Support Team 2:					\$49,000
Subtotal ExtraMural Costs:					\$285,454
Extramural Cost Contingency (20%):					\$57,091
Total Project Ceiling (in 2013 Dollars):					\$342,545
2013 Total Present Worth Cost:					\$3,023,870

Notes:

1. Assume staging area developed as part of OU2 construction will be used.

2. Estimated Volume of Hazardous Fill and Soil
(143 Water St. parcel)

1,000 BCY

3. Estimated Volume of Fill and Non-Hazardous
Soils (remaining parcels)

4,800 BCY

4. Estimated Surface Area of Hazardous Material
(estimated based on extent of contamination shown

14,100 SF

5. Estimated Surface Area of Non-hazardous
Material (estimated based on extent of
contamination shown on Figure 4-1)

83,800 SF

6. Estimated Length of Creek adjacent to properties

1,000 LF

7. Assume verification sampling grid spacing:

25 ft

8. Construction Duration (Assuming 5 day work week)

Total Project Time

6 mo Not adjusted from 2009 Estimate
1 construction season

material):

1.15 LCY/BCY

material):

1.5 tons/BCY

material):

1.12 LCY/BCY

material):

1.7 tons/BCY

13. 30-year present worth of costs assumes 7 % discount rate as per "A Guide to Developing and Documenting Cost Estimates During the Feasibility Study" (EPA 540-R-00-002 August 2000).

14. Costs presented are based on conventional contracting methods.

15. Assume tree planting grid spacing every

25 ft

16. RS Means Historical Cost Index were used to escalate the 2008/2009 costs to 2013 costs:

Year	Index #
2007	169.4
2008	180.4
2009	180.1
2010	183.5
2011	191.2

Table 17 Cost Estimate for Alternative 3 - Complete Excavation, Off-site Disposal and Permanent Relocation, Eighteenmile Creek Corridor Site, Lockport, New York

Description	Comments	Quantity	Units	Unit Cost	Cost
Key:		2012	194.6		
BCY = Bank cubic yards.		2013	197.6		
EA = Each.					
ECY = Embankment cubic yards.					
HR = Hour.					
kGal = Thousand gallons.					
LCY = Loose cubic yards.					
LF = Linear feet.					
LS = Lump sum.					
Mo = Month.					
MSF = 1000 square feet.					
OU = Operable Unit.					
SF = Square feet.					
SY = Square yards.					
WWTP = Wastewater treatment plant.					

Table 18 Summary of Total Present Worth Values of Alternatives, Eighteenmile Creek Corridor Site, Lockport, New York

	Alternative 1	Alternative 2a	Alternative 2b	Alternative 3a	Alternative 3b
Description	No Action	Capping, Institutional Controls and Long Term Monitoring	Capping, Institutional Controls, Long Term Monitoring and Permanent Relocation	Complete Excavation and Offsite Disposal	Complete Excavation, Offsite Disposal and Permanent Relocation
Total Project Duration (Years)	0	30	30	30	30
Capital Cost	\$0	\$1,234,000	\$1,234,000	\$2,243,000	\$2,243,000
Additional Capital Costs for Resident Relocation	\$0	\$0	\$438,325	\$0	\$438,325
Water Street Demolition Costs	\$0	\$0	\$342,545	\$0	\$342,545
30-year Present Worth of Periodic O&M Costs:	\$0	\$163,000	\$163,000	\$0	\$0
2013 Total Present Value of Alternatives:	\$0	\$1,397,000	\$2,177,870	\$2,243,000	\$3,023,870

Note:

All costs are presented in 2013 Dollars.

Appendix III
Administrative Record Index

ADMINISTRATIVE RECORD INDEX OF DOCUMENTS

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Site Name: EIGHTEENMILE CREEK
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210445	07/26/2013	ADMINISTRATIVE RECORD INDEX FOR OU1 FOR THE EIGHTEENMILE CREEK SITE	6	[INDEX]			[]	[]	[,]	[US ENVIRONMENTAL PROTECTION AGENCY]
687505	09/01/2000	SITE INVESTIGATION REPORT FOR THE EIGHTEENMILE CREEK SITE	130	[REPORT]	R2-0000001	R2-0000130	[]	[]	[,]	[NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION]
152782	05/28/2002	ANALYTICAL REPORT REVISED JOB#: A02-4346 TCLP ON SS-3 AND SS-4 FOR THE EIGHTEENMILE CREEK SITE	522	[REPORT]	R2-0000131	R2-0000652	[,]	[NYS DEC]	[,]	[SEVERN TRENT SERVICES]
152783	08/20/2002	ANALYTICAL REPORT JOB#: A02-7443 SS-5 THROUGH SS-21 AND SED-7 FOR THE EIGHTEENMILE CREEK SITE	929	[REPORT]	R2-0000653	R2-0001581	[,]	[NYS DEC]	[,]	[SEVERN TRENT SERVICES]
152779	11/01/2002	PHASE 1 ENVIRONMENTAL SITE ASSESSMENT REPORT FOR WHITE TRANSPORTATION AT THE EIGHTEENMILE CREEK SITE	209	[REPORT]	R2-0001582	R2-0001790	[,]	[NIAGARA COUNTY DEPARTMENT OF PLANNING, DEVELOPMENT AND TOURISM]	[,]	[TVGA CONSULTANTS]
152781	11/26/2002	FIELD NOTES APRIL - NOVEMBER 2002 SS-1 THROUGH SS-26 FOR THE EIGHTEENMILE CREEK SITE	6	[NOTES]	R2-0001791	R2-0001796	[]	[]	[]	[]
152784	12/17/2002	ANALYTICAL REPORT JOB#: A02-B828 SS-22 THROUGH SS-26 FOR THE EIGHTEENMILE CREEK SITE	700	[REPORT]	R2-0001797	R2-0002496	[,]	[NYS DEC]	[,]	[SEVERN TRENT SERVICES]
152771	03/01/2003	SAMPLING REPORT - WATER STREET PROPERTIES AT THE EIGHTEENMILE CREEK SITE	123	[REPORT]	R2-0002497	R2-0002619	[]	[]	[,]	[NYS DEC]
152772	02/01/2004	SITE INVESTIGATION - SCOPE OF WORK, EIGHTEEN MILE CREEK CORRIDOR: NEW YORK STATE BARGE CANAL TO NORTH TRANSIT ROAD FOR EIGHTEENMILE CREEK SITE	33	[REPORT]	R2-0002620	R2-0002652	[]	[]	[,]	[NYS DEC]
152785	04/26/2005	FIELD NOTES - APRIL 2005 SEDIMENT SAMPLES FOR THE EIGHTEENMILE CREEK SITE	12	[NOTES]	R2-0002653	R2-0002664	[]	[]	[]	[]
152790	05/05/2005	ANALYTICAL REPORT JOB#: A05-3786 SED-11, SED-14 & SED-22 FOR THE EIGHTEENMILE CREEK SITE	561	[REPORT]	R2-0002665	R2-0003225	[,]	[NYS DEC]	[,]	[SEVERN TRENT SERVICES]
152791	05/31/2005	ANALYTICAL REPORT JOB#: A05-4133 SED-27B & SED-37B FOR THE EIGHTEENMILE CREEK SITE	649	[REPORT]	R2-0003226	R2-0003874	[,]	[NYS DEC]	[,]	[SEVERN TRENT SERVICES]

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210446	07/01/2005	SITE INVESTIGATION REPORT - SITE INVESTIGATION/REMEDIATION ALTERNATIVES REPORT (SI/RAR) FOR THE EIGHTEENMILE CREEK SITE	691	[REPORT]	R2-0003875	R2-0004565	[,]	[NIAGARA COUNTY DEPARTMENT OF PLANNING, DEVELOPMENT AND TOURISM]	[,]	[TVGA CONSULTANTS]
152787	09/22/2005	FIELD NOTES - SEPTEMBER 2005 SEDIMENT SAMPLES FOR THE EIGHTEENMILE CREEK SITE	9	[NOTES]	R2-0004566	R2-0004574	[]	[]	[]	[]
152789	09/22/2005	FIELD NOTES - SEPTEMBER 2005 UPSON & WHITE SAMPLES FOR THE EIGHTEENMILE CREEK SITE	3	[NOTES]	R2-0004575	R2-0004577	[]	[]	[]	[]
152792	09/30/2005	ANALYTICAL REPORT JOB#: A05-A133 SED-10 THROUGH SED-18 & SED-44 FOR THE EIGHTEENMILE CREEK SITE	875	[REPORT]	R2-0004578	R2-0005452	[,]	[NYS DEC]	[,]	[SEVERN TRENT SERVICES]
152786	10/06/2005	FIELD NOTES - SEPTEMBER - OCTOBER 2005 SB-1 THROUGH SB-25 AND TP-1 THROUGH TP-3 FOR THE EIGHTEENMILE CREEK SITE	7	[NOTES]	R2-0005453	R2-0005459	[]	[]	[]	[]
152793	10/20/2005	ANALYTICAL REPORT JOB#: A05-A134 SED-20 THROUGH SED-32 & SED-42 & SED-43 FOR THE EIGHTEENMILE CREEK SITE	768	[REPORT]	R2-0005460	R2-0006227	[,]	[NYS DEC]	[,]	[SEVERN TRENT SERVICES]
210429	10/21/2005	FINAL REMEDIATION ALTERNATIVES REPORT - SITE INVESTIGATION / REMEDIATION ALTERNATIVES REPORT FOR THE EIGHTEENMILE CREEK SITE	69	[REPORT]	R2-0006228	R2-0006296	[,]	[NIAGARA COUNTY DEPARTMENT OF PLANNING, DEVELOPMENT AND TOURISM]	[,]	[TVGA CONSULTANTS]
152795	10/25/2005	ANALYTICAL REPORT JOB#: A05-A477 SED-28 THROUGH SED-40, UPSON & WHITE FOR THE EIGHTEENMILE CREEK SITE	2016	[REPORT]	R2-0006297	R2-0008312	[,]	[NYS DEC]	[,]	[SEVERN TRENT SERVICES]
152796	10/25/2005	ANALYTICAL REPORT JOB#: A05-A718 SB-1 THROUGH SB-11 & TP-1 THROUGH TP-3 FOR THE EIGHTEENMILE CREEK SITE	1325	[REPORT]	R2-0008313	R2-0009637	[,]	[NYS DEC]	[,]	[SEVERN TRENT SERVICES]
152797	10/25/2005	ANALYTICAL REPORT JOB#: A05-A987 SB-12 THROUGH SB-19 FOR THE EIGHTEENMILE CREEK SITE	1232	[REPORT]	R2-0009638	R2-0010869	[,]	[NYS DEC]	[,]	[SEVERN TRENT SERVICES]
152794	10/29/2005	ANALYTICAL REPORT JOB#: A05-B170 SED-20, SED-23 & SED-24 FOR THE EIGHTEENMILE CREEK SITE	575	[REPORT]	R2-0010870	R2-0011444	[,]	[NYS DEC]	[,]	[SEVERN TRENT SERVICES]
152788	11/03/2005	FIELD NOTES - OCTOBER - NOVEMBER 2005 SS-25 THROUGH SS-44 FOR THE EIGHTEENMILE CREEK SITE	6	[NOTES]	R2-0011445	R2-0011450	[]	[]	[]	[]

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152798	11/25/2005	ANALYTICAL REPORT JOB#: A05-C484 SB-25 THROUGH SB-44 FOR THE EIGHTEENMILE CREEK SITE	875	[REPORT]	R2-0011451	R2-0012325	[,]	[NYS DEC]	[,]	[SEVERN TRENT SERVICES]
210448	03/01/2006	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION ENVIRONMENTAL RESTORATION RECORD OF DECISION FOR THE FORMER FLINTKOTE PLANT SITE	53	[REPORT]	R2-0012326	R2-0012378	[]	[]	[DESNOYERS, DALE]	[NY STATE DEPT OF ENVIRONMENTAL CONSERVATION]
152770	09/01/2006	REMEDIAL INVESTIGATION REPORT-EIGHTEEN MILE CREEK CORRIDOR FOR EIGHTEENMILE CREEK SITE	243	[REPORT]	R2-0012379	R2-0012621	[]	[]	[,]	[NYS DEC]
152775	03/01/2007	FINAL PROJECT MANAGEMENT WORK PLAN FOR THE SUPPLEMENTAL REMEDIAL INVESTIGATION AND FEASIBILITY STUDY AT THE EIGHTEENMILE CREEK SITE	123	[PLAN]	R2-0012622	R2-0012744	[,]	[NYS DEC]	[,]	[ECOLOGY AND ENVIRONMENT ENGINEERING P.C.]
152774	11/12/2008	ADDITIONAL INVESTIGATION FOR THE SUPPLEMENTAL REMEDIAL INVESTIGATION / FEASIBILITY STUDY FOR THE EIGHTEENMILE CREEK SITE	114	[REPORT]	R2-0012745	R2-0012858	[,]	[NYS DEC]	[,]	[ECOLOGY AND ENVIRONMENT ENGINEERING P.C.]
152776	07/01/2009	FINAL JULY 2009 SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT FOR THE EIGHTEENMILE CREEK SITE	624	[REPORT]	R2-0012859	R2-0013482	[,]	[NYS DEC]	[,]	[ECOLOGY AND ENVIRONMENT ENGINEERING P.C.]
152777	07/01/2009	FINAL JULY 2009 ADDITIONAL INVESTIGATION ADDENDUM TO THE SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT FOR THE EIGHTEENMILE CREEK SITE	170	[REPORT]	R2-0013483	R2-0013652	[,]	[NYS DEC]	[,]	[ECOLOGY AND ENVIRONMENT ENGINEERING P.C.]
152778	09/01/2009	FINAL FEASIBILITY STUDY REPORT FOR THE EIGHTEEN MILE CREEK CORRIDOR AND ADJACENT UPLAND PROPERTIES (WATER STREET RESIDENTIAL PROPERTIES, FORMER UNITED PAPERBOARD COMPANY, WHITE TRANSPORTATION, AND UPSON PARK) FOR THE EIGHTEENMILE CREEK SITE	207	[REPORT]	R2-0013653	R2-0013859	[,]	[NYS DEC]	[,]	[ECOLOGY AND ENVIRONMENT ENGINEERING P.C.]
152780	01/11/2010	PROPOSED REMEDIAL ACTION PLAN, OPERABLE UNIT NUMBERS 1, 3, 4, 5 AND 6 FOR THE EIGHTEENMILE CREEK SITE	62	[PLAN]	R2-0013860	R2-0013921	[]	[]	[,]	[NYS DEC]

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210447	03/01/2010	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION RECORD OF DECISION FOR THE EIGHTEENMILE CREEK CORRIDOR SITE - OPERABLE UNIT NOS. 1,3, 4, 5 AND 6 - STATE SUPERFUND PROJECT	79	[REPORT]	R2-0013922	R2-0014000	[]	[]	[DESNOYERS, DALE]	[NY STATE DEPT OF ENVIRONMENTAL CONSERVATION]
210434	05/11/2012	NOTIFICATION OF US EPA INITIATING CONSULTATION AND COORDINATION WITH THE GOVERNMENT OF THE TUSCARORA NATION REGARDING THE EIGHTEENMILE CREEK SITE	2	[LETTER]	R2-0014001	R2-0014002	[HENRY, LEO R]	[TUSCARORA NATION]	[TACCONE, THOMAS]	[EPA, REGION 2]
687600	12/18/2012	FINAL RESULT OF ANALYSES OF SAMPLES - PROJECT NO. 1211037 FOR THE EIGHTEENMILE CREEK SITE	30	[LETTER]	R2-0014003	R2-0014032	[KISH, TERRY]	[WESTON SOLUTIONS, INC.]	[BOURBON, JOHN]	[US ENVIRONMENTAL PROTECTION AGENCY]
686225	01/29/2013	FINAL REMOVAL ASSESSMENT SAMPLING TRIP REPORT FOR THE ASBESTOS INSPECTION AND BULK SAMPLING EVENT CONDUCTED ON 11/15/2012 AND 11/16/2012 AT THE EIGHTEENMILE CREEK SITE	56	[REPORT]	R2-0014033	R2-0014088	[]	[]	[GARIBALDI, MICHAEL]	[WESTON SOLUTIONS, INC.]
210420	03/11/2013	FINAL SITE-SPECIFIC QUALITY ASSURANCE PROJECT PLAN FOR THE EIGHTEENMILE CREEK SITE	83	[REPORT]	R2-0014089	R2-0014171	[]	[]	[,]	[WESTON SOLUTIONS, INC.]
687631	03/13/2013	REDACTED OFFSITE SAMPLING RESULTS OF THE 03/13/2013 SAMPLING FOR THE EIGHTEENMILE CREEK SITE	1	[CHART / TABLE]	R2-0014172	R2-0014172	[]	[]	[,]	[US ENVIRONMENTAL PROTECTION AGENCY]
210428	03/22/2013	LETTER HEALTH CONSULTATION SUMMARIZING THE NYSDOH AND ATSDR EVALUATION OF ENVIRONMENTAL DATA COLLECTED IN THE RESIDENTIAL NEIGHBORHOOD NEXT TO THE EIGHTEENMILE CREEK SITE	13	[LETTER]	R2-0014173	R2-0014185	[TACCONE, THOMAS]	[EPA, REGION 2]	[FORCUCCI, MATTHEW J]	[STATE OF NEW YORK DEPARTMENT OF HEALTH]
687703	04/10/2013	RESULTS OF ANALYSES FOR SAMPLES - PROJECT NO. 1303085 FOR THE EIGHTEENMILE CREEK SITE	24	[LETTER]	R2-0014186	R2-0014209	[KISH, TERRY]	[WESTON SOLUTIONS, INC.]	[BOURBON, JOHN]	[US ENVIRONMENTAL PROTECTION AGENCY]
210433	04/30/2013	NOTIFICATION OF US EPA INITIATING CONSULTATION AND COORDINATION WITH THE GOVERNMENT OF THE TONAWANDA SENECA NATION REGARDING THE EIGHTEENMILE CREEK SITE	3	[LETTER]	R2-0014210	R2-0014212	[HILL, ROGER]	[TONAWANDA SENECA NATION]	[TACCONE, THOMAS]	[EPA, REGION 2]

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210430	05/03/2013	NATIONAL PRIORITIES LIST FACTSHEET FOR THE EIGHTEENMILE CREEK SITE	2	[FACTSHEET]	R2-0014213	R2-0014214	[]	[]	[,]	[US ENVIRONMENTAL PROTECTION AGENCY]
210436	05/09/2013	REDACTED LABORATORY RESULTS FOR THE SOIL SAMPLE COLLECTED AT PROPERTY ID 109.06-4-6 FOR THE EIGHTEENMILE CREEK SITE	4	[LETTER]	R2-0014215	R2-0014218	[]	[]	[TACCONE, THOMAS]	[EPA, REGION 2]
210437	05/09/2013	REDACTED LABORATORY RESULTS FOR THE SOIL SAMPLE COLLECTED AT PROPERTY ID 109.06-4-9 FOR THE EIGHTEENMILE CREEK SITE	4	[LETTER]	R2-0014219	R2-0014222	[]	[]	[TACCONE, THOMAS]	[EPA, REGION 2]
210438	05/09/2013	REDACTED LABORATORY RESULTS FOR THE SOIL SAMPLE COLLECTED AT PROPERTY ID 109.06-1-48 FOR THE EIGHTEENMILE CREEK SITE	4	[LETTER]	R2-0014223	R2-0014226	[]	[]	[TACCONE, THOMAS]	[EPA, REGION 2]
210439	05/09/2013	REDACTED LABORATORY RESULTS FOR THE SOIL SAMPLE COLLECTED AT PROPERTY ID 109.06-1-51 FOR THE EIGHTEENMILE CREEK SITE	4	[LETTER]	R2-0014227	R2-0014230	[]	[]	[TACCONE, THOMAS]	[EPA, REGION 2]
210440	05/09/2013	REDACTED LABORATORY RESULTS FOR THE SOIL SAMPLE COLLECTED AT PROPERTY ID 109.06-4-12 FOR THE EIGHTEENMILE CREEK SITE	4	[LETTER]	R2-0014231	R2-0014234	[]	[]	[TACCONE, THOMAS]	[EPA, REGION 2]
210441	05/09/2013	REDACTED LABORATORY RESULTS FOR THE SOIL SAMPLE COLLECTED AT PROPERTY ID 109.06-3-16 FOR THE EIGHTEENMILE CREEK SITE	5	[LETTER]	R2-0014235	R2-0014239	[]	[]	[TACCONE, THOMAS]	[EPA, REGION 2]
210442	05/09/2013	REDACTED LABORATORY RESULTS FOR THE SOIL SAMPLE COLLECTED AT PROPERTY ID 109.06-3-14 FOR THE EIGHTEENMILE CREEK SITE	4	[LETTER]	R2-0014240	R2-0014243	[]	[]	[TACCONE, THOMAS]	[EPA, REGION 2]
210443	05/09/2013	REDACTED LABORATORY RESULTS FOR THE SOIL SAMPLE COLLECTED AT PROPERTY ID 109.06-3-15 FOR THE EIGHTEENMILE CREEK SITE	4	[LETTER]	R2-0014244	R2-0014247	[]	[]	[TACCONE, THOMAS]	[EPA, REGION 2]
687601	07/12/2013	FINAL RESULT OF ANALYSES OF SAMPLES - PROJECT NO. 1306017 FOR THE EIGHTEENMILE CREEK SITE	16	[LETTER]	R2-0014248	R2-0014263	[KISH, TERRY]	[WESTON SOLUTIONS, INC.]	[BOURBON, JOHN]	[US ENVIRONMENTAL PROTECTION AGENCY]
687629	07/15/2013	REDACTED RESULTS OF 06/04/2013 SAMPLING EVENT FOR THE EIGHTEENMILE CREEK SITE	4	[CHART / TABLE]	R2-0014264	R2-0014267	[]	[]	[]	[]

ADMINISTRATIVE RECORD INDEX OF DOCUMENTS

FINAL
07/26/2013

REGION ID: 02

Site Name: EIGHTEENMILE CREEK
CERCLIS ID: NYN000206456
OUID: 01
SSID: A269
Action:

DocID:	Doc Date:	Title:	Image Count:	Doc Type:	Beginning Bates:	Ending Bates:	Addressee Name:	Addressee Organization:	Author Name:	Author Organization:
687711	07/23/2013	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION CONCURRENCE OF THE PROPOSED PLAN FOR THE EIGHTEENMILE CREEK SITE	1	[LETTER]	R2-0014268	R2-0014268	[MUGDAN, WALTER E]	[EPA, REGION 2]	[SCHICK, ROBERT]	[NY STATE DEPT OF ENVIRONMENTAL CONSERVATION (NYSDEC)]
687605	07/25/2013	SUPPLEMENTAL FEASIBILITY STUDY FOR OU1 FOR THE EIGHTEENMILE CREEK SITE	707	[REPORT]	R2-0014269	R2-0014975	[]	[]	[,]	[US ENVIRONMENTAL PROTECTION AGENCY]
687733	07/25/2013	PROPOSED PLAN FOR OU1 FOR THE EIGHTEENMILE CREEK SITE	19	[PLAN]	R2-0014976	R2-0014994	[]	[]	[,]	[US ENVIRONMENTAL PROTECTION AGENCY]

Appendix IV
NYSDEC Letter of Concurrence

New York State Department of Environmental Conservation

Division of Environmental Remediation

Office of the Director, 12th Floor

625 Broadway, Albany, New York 12233-7011

Phone: (518) 402-9706 • Fax: (518) 402-9020

Website: www.dec.ny.gov



Joe Martens
Commissioner

SENT VIA EMAIL ONLY

September 30, 2013

Mr. Walter E. Mugdan (mugdan.walter@epa.gov)

Director

Emergency and Remedial Response Division

United States Environmental Protection Agency

Region 2

290 Broadway, Floor 19

New York, New York 10007-1866

RE: Eighteen Mile Creek, Site No. 932121
Record of Decision
New York State Concurrence

Dear Mr. Mugdan:


The New York State Department of Environmental Conservation and Department of Health have reviewed the Record of Decision (ROD) dated September 2013. We understand the remedy for this site addresses contaminated soil and groundwater, designated as EPA Operable Unit 1 (DEC Operable Unit 06). The remedy includes:

- Acquisition of six privately-owned residential properties on Water Street in Lockport, New York, permanent relocation of property owners/tenants who reside in five houses on these properties, and demolition of the houses;
- Excavation of an estimated 5,800 cubic yards of soil contaminated with polychlorinated biphenyls (PCBs) and inorganic contaminants, including lead and chromium from nine residential properties (including the six privately-owned properties and three properties owned by the City of Lockport), off-site disposal of contaminated soil, and backfilling with clean fill; and
- Demolition of the contaminated, structurally unsound building at the former Flintkote Plant property which is located at 300 Mill Street in Lockport, New York. Contaminated demolition debris will be transported off-site for proper disposal. Non-contaminated debris will be used on-site as fill material.

The remedy was presented to the public at an August 13, 2013 meeting and a public comment period was provided. Comments from the meeting and comment period are presented and answered in the responsiveness summary included as an attachment to the ROD. With this understanding, we concur with the selected remedy for the Eighteen Mile Creek Site.

If you have any questions or need additional information, please contact Mr. Gregory Sutton at (716) 851-7220.

Sincerely,

A handwritten signature in dark ink, appearing to read "R. Schick", is centered on a light-colored rectangular background.

Robert W. Schick, P.E.
Director
Division of Environmental Remediation

cc: P. Mannino, USEPA, Region 2 (mannino.pietro@epa.gov)
T. Taconne, USEPA, Region 2(taconne.tom@epa.gov)
K. Anders, NYSDOH (kma06@health.state.ny.us)
M. Forcucci, NYSDOH (mjf13@health.state.ny.us)
M. Cruden, NYSDEC
G. May, NYSDEC, Region 9
G. Sutton, NYSDEC, Region 9

Appendix V

Responsiveness Summary

**RESPONSIVENESS SUMMARY
FOR THE
RECORD OF DECISION
EIGHTEEN MILE CREEK SITE
NIAGARA COUNTY, NEW YORK**

INTRODUCTION

This Responsiveness Summary provides a summary of comments and concerns provided by private citizens and public officials during the public comment period related to the *Superfund Proposed Plan* (“Proposed Plan”) for operable unit 1 (OU1) of the Eighteen Mile Creek Superfund Site (“Site”) and provides the responses of the U.S. Environmental Protection Agency (“EPA”) to those comments and concerns. All comments summarized in this document have been considered in the EPA’s selection of the remedy for the Site.

SUMMARY OF COMMUNITY RELATIONS ACTIVITIES

All documentation which the EPA used to develop the Proposed Plan and select the remedy in this Record of Decision (“ROD”), including the EPA’s Supplemental Feasibility Study dated July 2013, are in the Administrative Record for OU1 which was made available to the public beginning July 26, 2013 in the information repositories maintained in the EPA Docket Room at the EPA Region 2 offices at 290 Broadway in Manhattan and at the Lockport Public Library, 23 East Avenue, Lockport, New York.

On July 26, 2013, the EPA had a notice published in the Lockport Union Sun and Journal informing the public of the commencement of the public comment period for the Proposed Plan, the upcoming public meeting on August 13, 2013, the preferred remedy for OU1, contact information for the EPA personnel, and the availability of Site-related documents in the Administrative Record. Notices also were sent to persons on the Site mailing list. The public comment period ran from July 26, 2013 to August 26, 2013. The EPA held a public meeting on August 13, 2013 at 7:00 P.M. at the 4-H Training Center, Niagara County Fairgrounds at 4487 Lake Avenue, Lockport, New York, to present the findings of the Proposed Plan, and to answer questions from the public about the Proposed Plan, the remedial alternatives evaluated, and the EPA’s preferred alternative. Local residents and state and local government officials attended the meeting.

SUMMARY OF COMMENTS AND RESPONSES

A summary of the comments provided at the public meeting and all written comments submitted during the public comment period, as well as the EPA’s responses to them, are provided below. The transcript from the public meeting and the letters submitted during the public comment period can be found in Attachments D and E, respectively, of Appendix V.

The comments and responses have been organized into the following topics:

- Human Health Issues
- Site Cleanup
- Nature and Extent of Contamination
- Other Issues

HUMAN HEALTH ISSUES

Comment 1: The residents on Water Street should receive a health physical and be closely monitored by the EPA. The Proposed Plan also fails to address any past, present or future medical expenses which may be incurred by the residents as a result of the contamination at the Water Street properties. In addition, information should be released related to the possible cause of cancer and other illnesses which have occurred in the local community.

Response to Comment 1: EPA does not conduct health studies at Superfund sites. However, Section 104(i)(6) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires the Agency for Toxic Substances and Disease Registry (ATSDR), a federal public health agency that is part of the Department of Health and Human Services (DHHS), to conduct public health assessments at sites listed or proposed for listing on the National Priorities List (NPL). A public health assessment is the evaluation of data and information on the release of hazardous substances into the environment in order to assess past, current, or future impact on public health, develop health advisories or other recommendations, and identifies studies or actions needed to evaluate and mitigate human health effects. The ATSDR, and its cooperative agreement partner, the New York State Department of Health (NYSDOH), do not provide medical treatment or health care or payments for health care. The ATSDR, in a cooperative agreement with its partner, the NYSDOH issued a letter health consultation for properties on Water Street and recommended, “Actions should be taken to reduce the potential for residents, especially children, to be exposed to PCBs, arsenic, chromium and lead in soil in the backyards of residences along Water Street.” The remedy in this ROD is consistent with the recommendations made in the letter health consult. The ATSDR, in a cooperative agreement with the NYSDOH, will release a public health assessment for the Eighteen Mile Creek NPL site in the near future that will provide information on cancer and noncancer risks attributable to contaminants identified in the Eighteen Mile Creek. Under the Superfund program, the EPA relies on risk assessments to make decisions at Superfund sites. Risk assessments are different from public health assessments in that they are quantitative, chemical-oriented characterizations that use statistical and biological models to calculate numerical estimate of risk to health. Risk assessments characterize the probability that adverse health effects will result from exposures to environmental hazards.

With respect to the comment regarding reimbursement of medical expenses to individuals who feel they have been impacted by the Site, CERCLA does not provide for reimbursement of medical expenses.

Comment 2: What measures have been imposed by the New York State Department of Environmental Conservation (NYSDEC) to advise residents of the ‘Eat-No-Fish advisory’ which has been imposed on the Creek? Also, the residents have not been informed of these advisories.

Response to Comment 2: Neither the EPA nor the NYSDEC has the authority to issue fish advisories on adversely affected water bodies. Fish advisories are issued by the New York State Department of Health (NYSDOH) on an annual basis and are included in the “Health Advisories” section of the NYSDEC’s “New York Freshwater Fishing, Official Regulation Guide” that is distributed when a fishing license is issued. In addition if community members have concerns about the fish consumption advisory, information can also be found at: http://www.health.ny.gov/environmental/outdoors/fish/health_advisories/. In addition, residents may contact the NYSDOH Bureau of Toxic Substance Assessment at 1-800-458-1158 for additional information. This information was also conveyed to residents who received a letter from NYSDEC dated May 28, 2008.

SITE CLEANUP

Comment 3: The City of Lockport (City) endorses the EPA’s preferred alternative but will only support the alternative if the residents on Water Street support the action.

Response to Comment 3: The EPA has reviewed all written and verbal comments submitted during the comment period, including the public meeting, and has determined that no adverse comments that warrant a change to the preferred remedy have been submitted.

Comment 4: What is the timeline for demolition and remediation of the former Flintkote building and the homes on Water Street. Once the residents are relocated, the project may become delayed so that the homes will be vacant which will lead to vandalism and crime in the area.

Response to Comment 4: The EPA expects the implementation of the selected remedy will be conducted in a phased manner. The process of acquiring properties and relocating residents would be initiated after issuance of this ROD and demolition activities related to these homes would commence after relocation activities have been completed. Depending on the results of the remedial design, the demolition of the former Flintkote building could potentially proceed prior to the demolition of the residential homes. The soil excavation work at the residential properties will not commence until after the EPA selects a response action to address contaminated sediment and soil in other areas of the Creek Corridor that runs through the City.

The EPA recognizes the potential for the vacant homes to become an attractive nuisance and, therefore plans to install security fencing around the vacant properties to minimize trespassing. In the event that security fencing is determined to be ineffective, the EPA would evaluate implementing additional security measures.

Comment 5: What will happen to the three City-owned residential properties on Water Street? Will they be cleaned up or will they remain a hazardous waste site with uncontrolled access by the public?

Response to Comment 5: The three City-owned parcels on Water Street do not contain any residential structures. As such, no relocation activities are necessary. Each of the properties on Water Street requiring soil remediation, including the three City-owned parcels, will be cleaned up to the same standards. Upon completion of the clean up, the EPA anticipates that these parcels can be returned to beneficial re-use.

Comment 6: The EPA should ensure that there is enough money to complete all demolition and disposal work at the former Flintkote building. The demolition debris also must also be properly transported off-Site to ensure protection of the local community and be sent for proper disposal.

Response to Comment 6: Once the ROD is issued for this action, the EPA will begin the process of obtaining the necessary funding to acquire the homes on Water Street and to demolish these homes and the former Flintkote building on Mill Street. An estimate of the necessary funding to accomplish these tasks will be obtained before the work begins. Also, the demolition debris will be handled so as to minimize the release of any material as it is transported off-Site for proper disposal.

Comment 7: Properties on Vine, Dayton, Butler and Center Streets, which are a block and a half way from the former Flintkote property, have not been mentioned or evaluated. Why not?

Response to Comment 7: As explained at the public meeting, this response action and future actions will focus on properties which contain Site-related contaminated fill material, which are a source of contamination to the Eighteen Mile Creek, or are contaminated by the Creek. The Water Street residential properties contain Site-related contaminated fill and receive contaminated sediment from the Creek during flooding events. The Flintkote property also contains contaminated fill material and is believed to be a source of contamination to the Creek. At this point in time, the EPA has no information which would require it to include the properties on Vine, Dayton, Butler and Center Street as part of the Eighteen Mile Creek Superfund Site.

Comment 8: Is the EPA aware of the PCB contamination at the Flintkote property?

Response to Comment 8: The EPA is aware that the former Flintkote property is contaminated with PCBs and other contaminants. The NYSDEC and Niagara County have investigated the property but have not been able to sample beneath the building since it is unsafe to enter. The demolition of the former Flintkote building will provide the necessary access to conduct further characterization of the property. The EPA's findings of further investigations at this property and any recommendations for the

remediation of contaminated soils will be provided in documents for a future response action.

Comment 9: Will the local community be in danger of being exposed to asbestos when the former Flintkote building is demolished?

Response to Comment 9: No. Demolition of the former Flintkote building, as well as any other remedial activities at the Site, will be performed pursuant to stringent standards to ensure the protection of the community and Site workers. These standards and specifications will be documented in plans that will be available to the public for review. Community air monitoring will also be conducted during the duration of the demolition project in accordance with NYSDOH guidelines.

Comment 10: How will the Eighteen Mile Creek be cleaned up? Will the contamination be scooped out?

Response to Comment 10: The EPA intends to address sediment contamination in the Eighteen Mile Creek in two future response actions or OUs for the Site. This ROD is for the EPA's first remedial action for the Site, identified as OU1. The second operable unit will address contaminated sediment and soil in certain areas of the Creek Corridor where it runs through Lockport, NY. The third operable unit will address Creek contamination north of the Corridor to the Creek's discharge to Lake Ontario. As part of the feasibility study process for these other operable units, technologies and remedial alternatives will be screened and evaluated to determine how to address contamination posing an unacceptable risk. If future response actions are determined to be necessary, such decisions documents will be made available to the public at that time.

Comment 11: Contamination exists in the Creek as it flows through Gulf Wilderness Park and should be cleaned up.

Response to Comment 11: The Gulf Wildness area is related to the Upper Mountain Road Site which is being addressed by the NYSDEC. Further information on that site may be obtained by calling Mr. Glenn May of the NYSDEC Region 9 office at (716) 851-7220.

Comment 12: On the southeastern portion of the Flinkote property, waste material was dumped into the Creek. Will it be cleaned up? How will the Creek be cleaned up?

Response to Comment 12: The Creek and certain adjacent properties, including the Flintkote property will be the subjects of future investigations to determine the nature and extent of contamination. Depending on the findings of these investigations, these areas may be addressed as part of future response actions for the Site.

Comment 13: A commenter stated that some residents are not being informed of the EPA's action.

Response to Comment 13: The EPA has and will make every effort to notify the local community well before any field work is conducted or before any local public meetings are scheduled. The EPA will also work with the community advisory group (CAG) which the EPA has established for this Site to reach out and inform the local community of any upcoming work before it is implemented. The EPA also intends on holding periodic public availability meetings to brief and inform the community of past and planned activities at the Site.

Comment 14: The EPA should buy 143 Water Street first since it is the largest property on the Street, is located nearest to the former Flintkote building and experiences the most flooding.

Response to Comment 14: Consistent with the Uniform Relocation Act of 1970, the EPA will work with each of the residents to ensure the uniform treatment of property owners that will be displaced. As such, the property at 143 Water Street will be acquired.

Comment 15: Several residents indicated that the EPA should buy and permanently relocate additional residents including 209 Jackson Street, 90 Water Street, and the property owners who received a copy of the NYSDEC's letter of May 28, 2008. The residents expressed concern regarding the resale of their homes. The property located at 90 Water Street is also susceptible to contamination and flooding and it would be inappropriate not to relocate a home which is across the street from a hazardous waste site.

Response to Comment 15: The selected remedy addresses the permanent relocation of the owners and occupants of five residential properties located on Water Street. These residential properties contain contaminated fill material and have been impacted by the deposition of contaminated sediments from flooding of the Creek. Although there is the potential that a limited number of additional homes have been impacted by these sources, the EPA believes that the soil remediation at these other properties, if warranted, could be addressed in a future operable unit or response action without the need for permanent relocation.

Comment 16: Numerous commenters raised a wide range of concerns regarding the relocation benefits, compensation and assistance that should be afforded to each of the homeowners requiring permanent relocation, citing the need to comply with the Uniform Relocation Act. In general, commenters stated that the federal government should provide owners with an easy and stress free process for finding another property and comparable housing unaffected by Site-related contamination.

With regards to the appraisal process and relocation assistance, some property owners stated that the appraisal must be unaffected by any decrease in market value which may be caused by the fact that the EPA has publicly stated that the properties are contaminated and also outlined various costs for inclusion, including but not limited to items such as interest or debt-related expenses, moving expenses and home

improvements. Two of the property owners requested the sum of \$250,000 each for their properties and all expenses related to relocation.

Response to Comment 16: The EPA's implementation of the selected remedy will satisfy the requirements of the Uniform Relocation Act of 1970. Therefore the appraisal process, the relocation benefits and assistance offered for each of the properties will be fair and equitable.

Comment 17: The property owners on Water Street should receive a house which is comparable to what they own.

Response to Comment 17: As indicated above, the EPA's implementation of the selected remedy will satisfy the requirements of the Uniform Relocation Act of 1970. Therefore the federal government's offer for the affected properties on Water Street will be fair and equitable

Comment 18: The proposed plan fails to specify compliance with the Uniform Relocation Act. Any amount offered to the affected resident must be in accordance with the provisions of the Act.

Response to Comment 18: The EPA's Proposed Plan and this ROD specifically indicate that the requirements of the Uniform Relocation Act of 1970 will be met.

Comment 19: Affected Water Street property owners must be compensated for actual and reasonable moving expenses incurred to move to a comparable home.

Response to Comment 19: The requirements of the Uniform Relocation Act of 1970 will be met. The Act requires that resident which are relocated receive just compensation for actual and reasonable moving expenses.

Comment 20: Residents should be relocated to properties which are safe with no health hazards.

Response to Comment: 20: The affected residents will be offered a comparable replacement property which is unaffected by Site-related contamination.

Comment 21: Numerous commenters raised questions concerning the practices and status of cleanup efforts at various facilities in Lockport that have the potential to impact the Eighteen Mile Creek, including the Van De Mark Chemical Company, General Motors Company, Norton Laboratories, Old Mountain Road State site, Guterl Steel, and the VanChlor facility (the soap factory).

Response to Comment 21: With the exception of the Guterl Steel site, the facilities identified by the commenters are currently being managed by the NYSDEC. For information related to these facilities, please contact Mr. Gregory Sutton at NYSDEC, Division of Environmental Remediation, at (716) 851-7220.

The Guterl Steel site is being addressed under the Formerly Utilized Sites Remedial Action Program (FUSRAP) by the U. S. Army Corps of Engineers (USACE). Further information regarding on-going activities is available at: <http://www.lrb.usace.army.mil/Missions/HTRW/FUSRAP/GuterlSteelSite.aspx>.

The EPA is coordinating closely with the NYSDEC and the USACE to ensure that other sources of potential contamination to the creek are being properly addressed and would not adversely impact the EPA's efforts to address contamination under the Eighteen Mile Creek Superfund Site.

Comment 22: A tarp should be placed over the dumpster containing asbestos at the Liberty Asbestos Superfund Site, located on Mill Street. The dumpster also should be removed.

Response to Comment 22: The dumpster referenced in the comment is covered with a secured tarp and is maintained within a security fence at the Liberty Asbestos Site. The EPA intends to arrange for the removal of this dumpster and other asbestos-containing material at the site in addition to the demolition of the building during the performance of a removal action at that site.

Comment 23: There is a house at the bottom of the hill on Niagara Street which has contaminated soil from the General Motors Company. The Creek runs behind the house and runs under Niagara Street. The property is flooded periodically.

Response to Comment 23: The EPA will not be sampling the property at the bottom of the hill on Niagara Street for this action, but will refer the property to the NYSDEC for its consideration.

Comment 24: There are several industrial companies north of the Flintkote Property which should be investigated. There is a hill behind Norton Laboratories. There was a chemical company who was fined for dumping material over the hill. Is this material going into the Creek?

Response to Comment 24: The EPA will not be sampling these properties under this OU, but will investigate the properties and Creek during implementation of the next response action which will address other contaminated properties in Lockport. If it is determined that the properties are impacting the Creek, they will be investigated and addressed under the provisions of CERCLA.

Comment 25: The property owners on Otto Park Place should be advised that the area is a NYSDEC Class 2 hazardous waste site and testing should be performed on their properties.

Response to Comment 25: The Otto Park Place land parcel is part of the Old Mountain Road State Superfund Site, and is approximately one mile from the New York State

Canal and two miles from the Eighteen Mile Creek. In March 2012, the NYSDEC issued a ROD for the land parcel which served as a municipal landfill for the City of Lockport from the 1920s through the 1950s. The ROD called for an engineered cap to be placed over the landfill.

NATURE AND EXTENT OF CONTAMINATION

Comment 26: As part of the Eighteen Mile Creek clean up, the EPA should test the Lockport section of the New York State Canal.

Response to Comment 26: An extensive sediment sampling study was conducted of Canal sediments as part of NYSDEC remedial investigation of Eighteen Mile Creek Site. The NYSDEC evaluated this data and released a report entitled, “Final Supplemental Remedial Investigation Report for the Eighteenmile Creek Corridor Site (Site No. 932121) City of Lockport, New York,” July 2009. In 2009, the NYSDEC sampled water and suspended sediment from the Canal at the point before it discharges to the Creek and the sampling results did not reveal concentrations of PCBs above the state water quality limit of 0.065 ppb. The NYSDEC evaluated this data and released a report entitled, “Results from the Sampling of Erie Canal Suspended Sediments and Creek Waters for PCBs” in October 2010. The report concluded that the Canal is not a significant source of PCBs to the Creek. As part of its on-going investigation, the EPA will evaluate this data and determine whether further sampling is warranted.

Comment 27: Several residents requested the EPA conduct soil sampling at their property. Some of these homeowners have noted the presence of ash.

Response to Comment 27: The EPA is developing a sampling plan to perform additional soil sampling at residential properties to determine if they have been impacted by sources at the Site and contain Site-related contamination. However, the presence of ash alone would not indicate that the residential property has been impacted by the Site.

Comment 28: A commenter requested that the EPA release the addresses of the properties sampled during the supplemental remedial investigation.

Response to Comment 28: Information related to this sampling effort is contained in the administrative record for this ROD which is available at the Lockport Public Library and at the EPA’s Superfund Records Center at 290 Broadway in New York City. However, personal information, including addresses, has been redacted and replaced with unique property identifications in an effort to maintain the homeowner’s privacy.

Comment 29: All property owners who received a copy of the NYSDEC’s letter of May 28, 2008 should have the soil on their properties tested.

Response to Comment 29: The EPA will not be sampling all properties which received a copy of the NYSDEC’s letter of May 28, 2008. The selected remedy for this ROD and future response actions will only address contaminated properties which contain Site-

related contaminated fill material, are a source of contamination to the Creek or are contaminated by the Creek. Only the properties which are considered by the EPA to be Site-related will be sampled.

OTHER ISSUES

Comment 30: Several commenters raised questions and concerns regarding a letter issued by NYSDEC on May 28, 2008 to residents in the vicinity of the Eighteen Mile Creek Superfund Site. Specifically, residents raised questions concerning the purpose of the letter, the intended recipients and requested the release of information which led to the NYSDEC's decision to issue the letter, including the dates, type and location of testing performed.

Response to Comment 30: NYS regulations require that when a site is listed on the NYS Registry of Inactive Hazardous Waste Sites that a contact list be developed that includes: property owners that are adjacent to the site, the chief executive officer of the city, town or village, and the public water supplier, in the area in which the site is located. The purpose of this letter is solely to inform these interested parties of the environmental issues that are within their community. While the DEC attempts to include these parties, the letter also includes the following wording: "If you currently are renting or leasing your property to someone else, please share this information with them. If you no longer own the property to which this letter was sent, please provide this information to the new owner and provide this office with the name and address of the new owner so that we can correct our records." in an attempt to insure that ALL required parties are informed of this information. Information about the site is also available at the Lockport Public Library or online at <http://www.dec.ny.gov/chemical/49445.html>. If residents have additional questions, NYSDEC has indicated that the residents should contact Mr. Gregory Sutton at the NYSDEC Region 9 Office at (716) 851-7220.

Comment 31: A resident on Water Street indicated that during heavy rain events raw sewage comes out of the toilet and bath tub, and a sewer filter in the street explodes releasing sewage to properties in the area.

Response to Comment 31: Issues related to sanitary sewage cannot be addressed using Superfund authority. However, if residents have concerns about the sanitary sewer, the City of Lockport has indicated that the residents should contact the City's Engineering Office at 716-439-6750.

ATTACHED TO THIS RESPONSIVENESS SUMMARY ARE THE FOLLOWING:

Attachment A	Proposed Plan
Attachment B	Public Notice - Commencement of Public Comment Period
Attachment C	August 13, 2013 Public Meeting Sign-In Sheets
Attachment D	August 13, 2013 Public Meeting Transcript
Attachment E	Written Comments Submitted During Public Comment Period

Appendix V
Attachment A

Proposed Plan

Eighteen Mile Creek Superfund Site

Niagara County, New York

July 2013

EPA ANNOUNCES PROPOSED PLAN

This Proposed Plan proposes an approach to address certain conditions present at a discrete portion of the Eighteen Mile Creek Superfund Site (Site), referred to herein as Operable Unit 1 (OU1). Various remedial alternatives are described in this Proposed Plan and the U.S. Environmental Protection Agency (EPA) has identified a preferred alternative. EPA anticipates additional remedies will be evaluated and selected in the future for additional OUs at this Site.

OU1 concerns soil contamination at several residential properties in the area of Water Street in Lockport, New York and the evaluation of conditions at an industrial building at the former Flintkote Company Plant (former Flintkote Plant), located at 300 Mill Street, in Lockport, New York.

This Proposed Plan was developed by EPA, the lead agency for the Site, in consultation with the New York State Department of Environmental Conservation (NYSDEC). EPA is issuing this Proposed Plan as part of its public participation responsibilities under Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, also known as Superfund), as amended, and Sections 300.430(f) and 300.435(c) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The nature and extent of the soil contamination at certain residential properties (hereinafter the Residential Properties) and the former Flintkote Plant are described in various NYSDEC studies and reports described below. In order to satisfy federal regulations pertaining to selecting a remedy under CERCLA, EPA obtained additional information that has been included in EPA's Supplemental Feasibility Study (Supplemental FS), completed July 25, 2013, as well as other documents which are contained in the Administrative Record supporting the decision regarding the proposed alternative. EPA encourages the public to review these documents to gain a more comprehensive understanding of the Site and the Superfund activities that have been conducted.

The purpose of this Proposed Plan is to inform the public of EPA's preferred remedy and to solicit public com-

ments pertaining to all of the remedial alternatives evaluated, including the preferred alternative. Based on the currently available information, soils at approximately nine Residential Properties are primarily contaminated with polychlorinated biphenyls (PCBs) and inorganic contaminants, including lead and chromium. EPA proposes in this Plan to acquire the necessary affected properties and permanently relocate affected residents. Following permanent relocation, the houses will be demolished, and after a related remedy for the operable unit addressing sediment contamination in the Creek Corridor is considered, selected, and, if necessary, implemented, the contaminated soil at the Residential Properties will be excavated and disposed of at an off-site permitted landfill, and the excavated properties will be back-filled with clean soils.

MARK YOUR CALENDAR

PUBLIC COMMENT PERIOD:

July 26, 2013 – August 26, 2013

EPA will accept written comments on the Proposed Plan during the public comment period.

PUBLIC MEETING: August 13, 2013 at 7:00 pm

EPA will hold a public meeting to explain the Proposed Plan and all of the alternatives presented in the Feasibility Study. Oral and written comments will also be accepted at the meeting. The meeting will be held at the USDA Service Center, located at 4487 Lake Road, Lockport, NY.

A recent soil sampling survey performed by EPA in the vicinity of Water Street and Mill Street revealed that a limited number of additional residential properties on Mill Street may potentially be impacted by contamination at the Site. If the results from further soil sampling conducted by EPA indicate that these additional properties have been impacted by the Site and require remediation, then the number of properties requiring soil remediation may increase. Soil remediation on these additional properties may necessitate temporary relocation of these residents because of anticipated excavation activities on these properties.

An element of the preferred remedy includes the demolition of the remaining building at the former Flintkote Plant, located at 300 Mill Street. Previous investigations indicated that the subsurface soils beneath the former Flintkote Plant may be a potential source of

contamination to the Eighteen Mile Creek (Creek). However, because of the dilapidated state of the building on this property, EPA and NYSDEC have been unable to safely sample these subsurface soils. As such, the demolition of the building is necessary to gain access to sample the subsurface soils. In addition, sampling indicates that the building is contaminated with asbestos-containing material, polynuclear aromatic hydrocarbons (PAHs), pesticides and metals, and thus poses a threat of release of hazardous substances into the environment. PAHs are a type of semi-volatile organic compound (SVOC) and are present in fossil fuels and are also formed during incomplete combustion. Other contaminated media at the former Flintkote Plant property will be addressed in a future operable unit.

Changes to the preferred remedy, or a change from the preferred remedy to another remedial alternative described in this Proposed Plan, may be made if public comments or additional data indicate that such a change will result in a more appropriate remedial action. The final decision regarding the selected remedy will be made after EPA has taken into consideration all public comments. For this reason, EPA is soliciting public comments on all of the alternatives considered in the Proposed Plan and on the detailed analysis section of NYSDEC's FS and EPA's Supplemental FS reports because EPA may select a remedy other than the preferred alternative.

COMMUNITY ROLE IN SELECTION PROCESS

EPA relies on public input to ensure that the concerns of the community are considered in selecting an effective remedy for each Superfund site. To this end, this Proposed Plan has been made available to the public for a public comment period which begins on July 26, 2013 and concludes on August 26, 2013.

A public meeting will be held during the public comment period at the United States Department of Agriculture Service Center at 4487 Lake Avenue in Lockport on August 13, 2013 at 7:00 p.m. to present the conclusions of the Supplemental FS, RI/FS and other studies performed to date, to elaborate further on the reasons for recommending the preferred alternative, and to receive public comments.

Comments received at the public meeting, as well as written comments, will be documented in the Responsiveness Summary Section of the Record of Decision (ROD), the document which formalizes the selection of the remedy.

Written comments on the Proposed Plan should be

addressed to:

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INFORMATION REPOSITORIES

Copies of the Proposed Plan and supporting documentation are available at the following information repositories:

Lockport Public Library
23 East Avenue
Lockport, New York
Telephone: (716) 433-5935
Hours of operation:
Mon. –Thurs.: 9 AM – 9 PM
Fri.: 9 AM – 6 PM, Sat.: 9 AM – 5 PM
Sun.: 12:30 PM – 5 PM

USEPA – Region II
Superfund Records Center
290 Broadway, 18th Floor
New York, New York 10007-1866
(212) 637-4308

SCOPE AND ROLE OF ACTION

The primary objectives of this action are to eliminate or minimize the risk associated with the residential soil contamination, reduce the potential for future contamination of sediments in the Creek by limiting erosion of contaminated terrestrial soils from the Residential Properties, and address the threat of release of hazardous substances from the deteriorating building at the former Flintkote Plant.

EPA anticipates that in the future it will publish additional proposed plans to address other aspects, or operable units, at the Site. One will likely address the contaminated sediments in the Creek Corridor (in the vicinity of the Residential Properties and the former Flintkote property) and contaminated soil at several industrial and commercial properties located within that Creek Corridor, and another will likely address contaminated sediment in the Creek from the north end of the Corridor in Lockport to its location of discharge into Lake Ontario.

SITE BACKGROUND

Site Description

The Site is located in Niagara County, New York and includes contaminated sediments, soil and groundwater in and around the Creek.

The headwaters of the Creek consist of an East and West Branch which begin immediately north of the New York State Barge Canal (Canal). Water from the Creek's East Branch originates at the spillway on the south side of the Canal, where it is directed northward underneath the Canal and the Mill Street Bridge through a culvert. Water from the West Branch originates from the dry dock on the north side of the Barge Canal and then flows northward. The East and West Branches converge just south of Clinton Street in Lockport. The Creek flows north for approximately 15 miles and discharges to Lake Ontario in Olcott, New York. A Site location map is provided as Figure 1.

In Lockport, the Creek Corridor is bordered by residential properties along Water Street and vacant land to the west, Upson Park to the south, Mill Street to the east, and the former Flintkote Plant property to the north. The topography of the area is relatively flat other than a steep downward slope toward the Creek and the millrace, which bisects the former Flintkote Plant property. The stretch of the Creek along what is referred to as the Creek Corridor is approximately 4000 feet in length.

The Residential Properties which, along with the remaining building at the former Flintkote Plant (discussed below), are the subject of this Proposed Plan encompass an area of approximately 2.25 acres along Water Street. These properties are adjacent to the Creek and experience flooding during high water events. Severe flooding of up to 100 feet from the Creek bank reportedly occurs approximately once every two years, with lesser flooding occurring several times a year as a result of heavy precipitation and blockage of culverts through which the Creek flows under William Street.

The former Flintkote Plant property occupies approximately six acres and includes parcels 300, 225, and 198 Mill Street. These parcels are located east and northeast of the Water Street properties.

Site History

Eighteen Mile Creek has a long history of industrial use dating back to the 19th century when it was used as a source of power. Sampling indicates the presence of numerous contaminants in Creek sediments, including

PCBs, lead, copper, pesticides/insecticides, dioxins, and furans. Possible sources of this contamination may include releases from hazardous waste sites or contaminated properties, industrial or municipal wastewater discharges, and storm water and combined sewer overflow discharges.

The former Flintkote Company began operations as a manufacturer of felt and felt products in 1928, when the property was purchased from the Beckman Dawson Roofing Company. In 1935, Flintkote began production of sound-deadening and tufting felt for installation and use in automobiles. Manufacturing of this product line continued until December 1971, when operations ceased and the plant closed. The disposal history at the former Flintkote Plant property is largely unknown, although aerial photographs suggest that by 1938 fill was disposed in the section of 300 Mill Street between the Creek and the millrace in an area known as the island. It has also been reported that ash resulting from the burning of municipal garbage was dumped at the former Flintkote Plant property.

In 1983, a portion of the former Flintkote Plant property, known as Building A, was listed on NYSDEC's Registry of Inactive Hazardous Waste Sites (Registry). During NYSDEC's Phase I investigation in 1983, multiple 55-gallon drums were found to contain solid material and PCB transformer oil, however testing of these drums did not reveal the presence of PCBs. In 1984, the former property owner arranged for off-site disposal of the drums, and the property was removed from NYSDEC's Registry.

In 1989, the City of Lockport's Building Inspection Department reported multiple drums throughout the buildings at 300 Mill Street. Testing of these drums revealed that they contained hazardous substances. In 1991, NYSDEC disposed of these drums at an off-site location.

In 2002, the building at 300 Mill Street was also the subject of an EPA removal action. This removal action focused on the removal of friable asbestos containing materials within the 300 Mill Street building and debris on the property. The removal action resulted in the off-site disposal of 170 cubic yards of asbestos-containing debris. Asbestos-containing material still remains in the building; however, most of it is in nonfriable form.

The majority of the buildings on the 198 Mill Street portion of the former Flintkote Plant property have been razed, though former basement walls, concrete columns, and concrete floors remain. The building that remains on the 300 Mill St. parcel is constructed of stone, brick, and concrete with wooden or concrete roof deck structures. The remaining structure is severely deteriorated, with the

majority of the building having some structural deficiencies. There are numerous openings in the floors. The roof systems are partially or completely collapsed and stairways and hand rails are in poor condition. Currently, the property is secured by a fence that is maintained by Niagara County.

In April 2002, the Niagara County Health Department (NCHD) received a request from a Water Street property owner to evaluate soils on their residential property. The property owner was concerned that elevated PCB concentrations in Creek sediment had the potential to impact their property during flooding events. NCHD conducted an initial inspection of the property owner's yard and NYSDEC subsequently collected three surface soil samples from the property on April 16, 2002. The results of the sampling analysis revealed that elevated concentrations of PCB and lead were present.

In March 2006, NYSDEC selected a remedy to address contamination at the former Flintkote Plant property. In March 2010, NYSDEC issued a second remedy to address areas of contamination in the Corridor, which included the Residential Properties and several other commercial/industrial properties. NYSDEC has not implemented the remedies. In 2011, NYSDEC requested that EPA consider the Site for inclusion on its National Priorities List (NPL). In March 2012, EPA included the Site on the NPL. Since that time, EPA has evaluated existing data, performed additional sampling to fill in data gaps for the residential properties, evaluated risk associated with the contaminants at these properties and completed the remedy selection process for this operable unit up to proposing this remedy.

Site Geology

The geology and hydrology of the Residential Properties are similar to those of the other portions of the Corridor area. The Corridor has four distinct geologic units. These units, in order of increasing depth, are summarized as follows:

- Topsoil described as a brown to dark brown silty soil with varying amounts of natural organic matter (e.g., leaves and rootlets). This unit was often encountered above fill material, but was absent in some areas of the Site. Where encountered, the thickness of the topsoil layer was usually less than 0.2 feet;
- Fill material consisting primarily of various colored ash and cinder material containing glass, coal, coke, slag, buttons, metal, ceramic, rubber and brick. Where encountered, the thickness of

the fill material ranged from approximately 1 to 25 feet;

- A glaciolacustrine deposit consisting primarily of mottled, brown to reddish brown, silty clay and clayey silt containing traces of fine grained sand and fine gravel. This deposit directly overlies bedrock, and where encountered, ranged in thickness from 0.1 to more than 28 feet; and
- Light to dark gray dolostone bedrock with interbedded gray clay underlying the southern portion of the Site, and marbleized red and white sandstone underlying the northern portion of the Site. Depth to bedrock at the Site ranged from 1.6 to more than 28 feet, with the greater depths generally associated with the thicker fill areas.

Groundwater underlying the Corridor area occurs in both the soil and fill material above the bedrock (the overburden) and the upper fractured bedrock, and it flows toward Eighteen Mile Creek. Saturated conditions were not encountered in the overburden soils at the northern portion of the Site east of Eighteen Mile Creek and at the southern portion of the Site west of the Creek.

Soil borings collected at the Residential Properties at depths of up to approximately 6 feet during NYSDEC's remedial investigation (RI) and Supplemental RI indicated the presence of fill material, similar to the type of fill observed in other areas of the Corridor, throughout the Residential Properties.

RESULTS OF THE REMEDIAL INVESTIGATION

As mentioned above, the RI that supports this proposed plan is composed of data collected by NYSDEC during various studies and EPA's supplemental work to complement NYSDEC's investigations and fulfill the federal requirements for remedy selection under CERCLA.

Residential Properties

In July 2002, NYSDEC conducted three separate sampling events of the Creek and properties along Water Street to determine if the residential properties along Water Street were impacted by the former Flintkote Plant and/or the Creek. Surface soil and sediment samples collected from the Water Street properties, the Creek, and the wooded property south of the former Flintkote Plant were analyzed for PCBs and/or lead. The results of these sampling events are presented in a NYSDEC publication entitled "*Sampling Report, Water Street Properties, City of*

Lockport, Niagara County, New York”, dated March 2003.

In 2005, NYSDEC collected an additional twenty surface soil samples and two subsurface native soil samples from residential properties along Water Street. These samples were collected to further define the nature and extent of surface soil contamination on the residential properties and were analyzed for PCBs and metals such as arsenic, chromium, copper, lead, and zinc.

In addition, NYSDEC collected eighteen subsurface fill samples for the RI from residential properties to characterize the fill material observed on the residential properties. Many of these samples were of fill material containing ash, slag, cinders, coal, brick, and/or glass. The field activities and sampling results are presented in a NYSDEC publication entitled “*Remedial Investigation Report*”, dated September 2006.

The concentrations of lead in the soil samples ranged from 10.7 parts per million (ppm) to 4,630 ppm and varied widely throughout the properties. PCB contamination also ranged widely throughout the properties, with concentrations from nondetect to approximately 17 ppm. The sampling revealed fill material present to a depth of up to 5.5 feet. Most of the exceedances were detected at the north end of Water Street and were on the property but near the Creek bank.

Arsenic, copper, chromium, and zinc are present at all of the Residential Properties in varying concentrations. Additionally, some SVOCs were found at elevated concentrations in subsurface soil samples. This is attributed to SVOCs in the ash, slag, and cinder fill found throughout the Residential Properties and the rest of the Creek Corridor.

The results of NYSDEC’s investigations indicate that the Residential Properties are contaminated by fill material containing PCBs and metals. These properties may also be further contaminated by periodic flooding of the Creek, as contaminated sediment may be deposited on these properties during flood events. In addition, erosion of soil from these properties may be contributing to the contamination of the Creek. In March 2010, following NYSDEC’s Feasibility Study of the Creek Corridor, NYSDEC selected a remedy under state law to address areas of contamination in the Corridor. As noted above, in 2011, NYSDEC requested that EPA consider the Site for inclusion on the NPL. In March 2012, EPA included the Eighteen Mile Creek Site on the NPL.

In March 2013, EPA expanded the residential soil

sampling program to supplement the investigations performed by NYSDEC and collected an additional nine surface soil samples primarily in the public right-of-ways along Mill Street and Jackson Avenue. Four soil samples were collected along the western side of Water Street, which were in the backyard of some Jackson Street properties. Analytical results of these four samples did not reveal elevated values of PCBs and/or metals indicative of Site-related impacts. On Mill Street, five soil samples were collected near the public right-of-way on the residential properties. Analytical results of these five soil samples did not reveal elevated levels of PCBs. However, lead was detected in all five Mill Street soil samples, and two out of the five Mill Street soil samples revealed elevated levels of lead ranging from 420 to 470 ppm. In June 2013, EPA conducted additional sampling at the two properties with elevated lead to evaluate whether the concentrations are representative of the lead concentrations in soil at these properties.

Former Flintkote Plant

In 1999, NYSDEC conducted an investigation of the former Flintkote Plant property. The results of the investigation are presented in a September 2000 report entitled “*Site Investigation Report, Former Flintkote Plant Site*.” The investigation revealed that the former Flintkote Plant property received various wastes, refuse and debris over the years. Much of the waste material was visible at the surface and along the embankments of the Creek, which runs through the Flintkote property, and the millrace. The subsurface investigation revealed that most of the waste material at the former Flintkote Plant property is ash containing glass, coal, coke, slag, ceramic, bottles, brick, buttons and wood.

In 2003, Niagara County, under the NYSDEC’s Environmental Restoration Program, conducted an additional investigation at the former Flintkote Plant property. As part of this phase, soil, fill, groundwater, surface water, sediment and waste samples were collected from the property to characterize the nature and extent of contamination. The sampling revealed the presence of approximately 46,500 cubic yards of ash fill at the property and elevated concentrations of PCBs, metals, and SVOCs in the soil and sediment. The field activities and findings of both the 1999 and 2003 investigations are described in Niagara County’s July 2005 “*Site Investigation Report*.” These investigations, however, did not characterize the soil beneath the large abandoned building located at the 300 Mill Street parcel, because the building is dilapidated, unsafe for personnel to enter and too confining to employ drilling equipment.

In March 2006, following NYSDEC's Feasibility Study of the former Flintkote Plant, NYSDEC selected a remedy under state law for the entire former Flintkote Plant property. To date, that remedy has not been implemented.

In November 2012, EPA collected additional samples from the former Flintkote building for waste characterization purposes. The results of the 28 samples collected for asbestos analysis confirmed the presence of asbestos-containing material in pipe insulation, window glazing and the roof. Samples were also collected from the walls and sediment inside the building, which revealed elevated levels of PAHs, pesticides, and lead. Lead was detected at a maximum concentration of 2,300 ppm from a concrete column in the basement.

RISK SUMMARY

As part of remedy selection process under CERCLA, EPA conducted a baseline human health risk assessment (HHRA) to estimate the current and future exposures present at the Site. This included evaluating soil contaminant levels at nine residential properties on Water Street. This baseline HHRA is an analysis of the potential adverse human health effects of releases of hazardous substances from a site in the absence of any actions or controls to mitigate such releases, under current and anticipated future land uses.

The HHRA provides estimates of cancer risk and noncancer health hazard based on current reasonable maximum exposure scenarios and are developed by taking into account various health protective estimates about the frequency and duration of an individual's exposure to chemicals selected as chemicals of potential concern (COPCs), as well as evaluating the toxicity of these contaminants. Cancer risks and noncancer health hazards summarized as Hazard Index (HI) are summarized below (please see the text box on page 7 for an explanation of these terms).

The Water Street properties are zoned for residential use. Future land use is expected to remain the same. The baseline HHRA began by selecting COPCs in the various media that would be representative of risks from exposure to the soils on the individual properties. The media evaluated as part of the human health risk assessment included soil at depths of 0-2 feet on the Residential Properties.

The baseline HHRA evaluated potential health effects that could result from exposure to contaminated media though direct contact with contaminated surface soils. Based on the current zoning and anticipated future land

use, the risk assessment focused primarily on current and future residents.

A more detailed discussion of the exposure pathways and estimates of risk can be found in the *Human Health Risk Assessment* for the Site in the information repository.

The results of NYSDEC's RI of the Water Street properties indicate that soils are primarily contaminated with Site-related contaminants, and in particular lead, PCBs, and to a lesser extent total chromium. Exposure to Creek sediments and surface waters was not evaluated for this HHRA and Proposed Plan, but it is anticipated that it will be for the HHRA and Proposed Plan for subsequent operable units of the Site.

Human Health Risk Assessment

As described in the box on page seven entitled, "What is Risk and How is it Calculated," the goal of protection for chemicals with noncancer health effects is an Hazard Index (HI) of 1. The evaluation of noncancer hazards in the HHRA identified five properties where the HI was greater than 1. The HIs for these properties ranged from 3 to 26, and PCBs and chromium were the main COPCs.

The National Contingency Plan established an acceptable risk range of cancer of 10^{-4} (one in ten thousand) to 10^{-6} (one in a million) as the basis for decisions regarding carcinogens. The HHRA found four properties where the cancer risks exceeded the risk range. At these properties, the cancer risk ranged from 7×10^{-4} (seven in ten thousand) to 1×10^{-3} (one in a thousand) and was driven primarily by chromium. Four additional properties were within the upper bounds of the acceptable risk range and one property had risk within the acceptable risk range.

Consistent with EPA policy and guidance, the HHRA evaluated lead through the use of a model to predict lead exposure in children six years and younger who are a particularly sensitive population. The conclusions set forth in the HHRA indicate that the average soil concentrations at five of the nine properties are above the health-based screening level of 400 ppm for lead based on model results. The average property-by-property lead concentration at the five properties ranged from 741 ppm to 1,088 ppm.

The HHRA used health protective assumptions in the assessment of the noncancer hazards and cancer risks. For example, chromium may be found in soils in different valence states such as chromium +6 and chromium +3 which is less toxic than chromium +6. In the absence of information regarding the form of chromium found in soil EPA assumed 100% of the chromium detected at the

WHAT IS RISK AND HOW IS IT CALCULATED

Human Health Risk Assessment: A Superfund baseline human health risk assessment is an analysis of the potential adverse health effects caused by hazardous substance releases from a site in the absence of any actions to control or mitigate these releases under current- and anticipated future-land uses. A four-step process is utilized for assessing site-related human health risks for reasonable maximum exposure scenarios.

Hazard Identification: In this step, the chemicals of potential concern (COPCs) at the site in various media (*i.e.*, soil, groundwater, surface water, and air) are identified based on such factors as toxicity, frequency of occurrence, and fate and transport of the contaminants in the environment, concentrations of the contaminants in specific media, mobility, persistence, and bioaccumulation.

Exposure Assessment: In this step, the different exposure pathways through which people might be exposed to the contaminants in air, water, soil, etc. that were identified in the previous step are evaluated. Examples of exposure pathways include incidental ingestion of and dermal contact with contaminated soil and ingestion of and dermal contact with contaminated groundwater. Factors relating to the exposure assessment include, but are not limited to, the concentrations in specific media that people might be exposed to and the frequency and duration of that exposure. Using these factors, a “reasonable maximum exposure” scenario, which portrays the highest level of human exposure that could reasonably be expected to occur, is calculated.

Toxicity Assessment: In this step, the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure and severity of adverse effects are determined. Potential health effects are chemical-specific and may include the risk of developing cancer over a lifetime or other non-cancer health hazards, such as changes in the normal functions of organs within the body (*e.g.*, changes in the effectiveness of the immune system). Some chemicals are capable of causing both cancer and non-cancer health hazards.

Risk Characterization: This step summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative assessment of site risks for all COPCs. Exposures are evaluated based on the potential risk of developing cancer and the potential for non-cancer health hazards. The likelihood of an individual developing cancer is expressed as a probability. For example, a 10^{-4} cancer risk means a “one-in-ten-thousand excess cancer risk”; or one additional cancer may be seen in a population of 10,000 people as a result of exposure to Site contaminants under the conditions identified in the Exposure Assessment. Current Superfund regulations for exposures identify the range for determining whether remedial action is necessary as an individual excess lifetime cancer risk of 10^{-4} to 10^{-6} , corresponding to a one-in-ten-thousand to a one-in-a-million excess cancer risk. For noncancer health effects, a “hazard index” (HI) is calculated. The key concept for a non-cancer HI is that a “threshold” (measured as an HI of less than or equal to 1) exists below which non-cancer health hazards are not expected to occur. The goal of protection is 10^{-6} for cancer risk and an HI of 1 for a noncancer health hazard. Chemicals that exceed a 10^{-4} cancer risk or an HI of 1 are typically those that will require remedial action at a site and are referred to as chemicals of concern, or COCs, in the final remedial decision document or Record of Decision.

properties was present in its most toxic form (chromium +6). This may significantly overestimate the cancer risks identified above.

Ecological Risk Assessment

A quantitative ecological risk assessment was not performed for this Proposed Plan. An ecological risk assessment will be performed for subsequent operable units.

Summary of Human Health Risks

The results of the HHRA indicate that the contaminated soil presents an unacceptable risk to human health at certain properties on Water Street in Lockport, New York. Unacceptable risks to human health as a result of other contaminated media at the former Flintkote Plant property will be addressed in a future operable unit which will address the Creek and other commercial/industrial properties in the Corridor.

Based upon the results of the NYSDEC’s RI, EPA’s supplemental sampling investigation and the HHRA, EPA has determined that actual or threatened releases of hazardous substances from the Site, if not addressed by the preferred remedy or one of the other active measures considered, will present a current or potential threat to human health. It is EPA’s current judgment that the Preferred Alternative identified in this Proposed Plan is necessary to protect human health or welfare from actual or threatened releases of hazardous substances into the environment.

REMEDIAL ACTION OBJECTIVES

Remedial action objectives (RAOs) are specific goals to protect human health. These objectives are based on available information and standards such as applicable or relevant and appropriate requirements (ARARs), to-be-considered guidance, and site-specific risk-based levels.

The following RAOs for contaminated soil will address the human health risks concerns at the Residential Properties where risk is determined to be unacceptable:

- Reduce or eliminate exposure (via ingestion and dermal contact) to PCBs and metals in soils at concentrations in excess of the preliminary remediation goals (PRGs). The PRG for PCBs and lead is 1 ppm and 400 ppm, respectively;
- Reduce or eliminate the potential for migration of contaminants from the Residential Properties to the Creek;

The following RAOs for the building at the former Flintkote Plant property will address unacceptable conditions:

- Prevent exposure to building materials contaminated with COPCs;
- Eliminate hazards to future Site workers posed by unstable structures; and
- Remove structural impediments that might interfere with subsurface sampling.

SUMMARY OF REMEDIAL ALTERNATIVES

CERCLA §121(b)(1), 42 U.S.C. §9621(b)(1), mandates that remedial actions must be protective of human health and the environment, cost-effective, comply with ARARS, and utilize permanent solutions and alternative treatment technologies and resource recovery alternatives to the maximum extent practicable. Section 121(b)(1) also establishes a preference for remedial actions that employ, as a principal element, treatment to reduce permanently and significantly the volume, toxicity, or mobility of the hazardous substances, pollutants, and contaminants at a site. CERCLA §121(d), 42 U.S.C. §9621(d), further specifies that a remedial action must attain a level or standard of control of the hazardous substances, pollutants, and contaminants that at least attains ARARs under federal and state laws, unless a waiver can be justified pursuant to CERCLA §121(d)(4), 42 U.S.C. §9621(d)(4).

Detailed descriptions of some of the remedial alternatives presented in this Proposed Plan for addressing the former Flintkote Plant building and for addressing the soil contamination at the Residential Properties are provided in the NYDEC's Final Remedial Alternatives Report, dated October 2005, and in the NYSDEC's Final Feasibility Study report, dated September 2009.

The construction time for each alternative reflects only the actual time required to construct or implement the action and does not include the time required to design the remedy, negotiate the performance of the remedy with any potentially responsible parties, procure the contracts for design and construction, or to relocate the residents. Because the Residential Properties are subject to periodic flooding from the Creek, remediation of the Residential Properties along Water Street prior to the remediation of the contaminated sediments in the Creek would likely result in the recontamination of the

Residential Properties. Therefore, the alternatives presented in this Proposed Plan assume that construction activities on the Residential Properties would commence after the sediments in the Creek are addressed as part of a subsequent action. However, the acquisition and relocation activities presented in Alternatives S2b and S3b would commence upon issuance of the ROD for this OU.

Soil Alternatives

Alternative S1: No Action

The NCP requires that a "No Action" alternative be developed as a baseline for comparing other remedial alternatives. Under this alternative, there would be no remedial actions conducted at the Site to control or remove the contaminants at the Residential Properties. This alternative does not include any monitoring or institutional controls.

Because this alternative would result in contaminants remaining above levels that allow for unrestricted use and unlimited exposure, CERCLA requires that the Site be reviewed at least once every five years. If justified by the review, additional response actions may be implemented.

<i>Capital Cost:</i>	\$0
<i>Annual O&M Costs:</i>	\$0
<i>Present-Worth Cost:</i>	\$0
<i>Construction Time:</i>	Not Applicable

Alternative S2a: Capping and Institutional Controls

<i>Capital Cost:</i>	\$ 1,234,000
<i>Annual O&M Costs:</i>	\$ 163,000
<i>Present-Worth Cost:</i>	\$ 1,397,000
<i>Construction Time:</i>	6 months to 1 year

This alternative would provide minimal engineering and institutional controls to prevent exposure to contaminated soils. Capping at the Residential Properties would be performed to minimize exposure to soil contaminated with PCBs, lead and other metals. The cap would consist of a demarcation layer and a two foot thick clean soil cover. The soil cover over the embankments near the Creek would also consist of two feet of clean soil cover for added bank stability. The top six inches of the soil cover would consist of topsoil that would be planted with native grasses, shrubs, and/or trees. The areas to be capped for each property would limit exposure to health-based acceptable concentrations of 1 ppm or less for PCBs and 400 ppm or less for lead. The approximate areas requiring capping are shown on Figure 2. During the remedial design, an evaluation would be conducted to determine the

impact of raising the grade(s) of the properties due to the installation of the cap. As a result of this evaluation, some soils may require excavation and off-site disposal to facilitate the installation of the two foot thick soil cap. Since contaminated soil above acceptable levels would remain on the properties following remediation, institutional controls would need to be implemented and may include environmental easements/restrictive covenants, deed notices, and/or zoning restrictions to limit future use of the properties.

The institutional controls would require owner/occupant compliance with an approved Site Management Plan which would restrict their full use of the property to prevent any disturbance of the soil cover.

Long-term monitoring would be conducted periodically to visually inspect the soil cover. Because contaminated soil would be left in place as part of Alternative S2a, review of the remedy every five years would be required.

The construction time begins with the start of on-site construction activities. These activities could begin several years after the selection of the remedy for OU1, as construction activities on the Residential Properties would not commence until after the sediments in the Creek Corridor are remediated, to prevent recontamination of the Residential Properties.

This alternative would not address contamination which exists at other commercial properties within the Creek Corridor or in the Creek itself. As noted above, that contamination will be addressed under future operable units.

Alternative S2b: Capping; Institutional Controls; and Permanent Relocation

Capital Cost:	\$ 2,014,870
Annual O&M Costs:	\$163,000
Present-Worth Cost:	\$ 2,177,870
Construction Time:	6 months to 1 year
Resident Relocation	1 year

Alternative S2b includes the remedial measures included in Alternative S2a, and adds that the Residential Properties would be acquired, occupants of the Residential Properties would be relocated, and the structures would be demolished. Concurrent with demolition of the structures, security fencing would be installed to restrict access to the contaminated areas. Relocation of the occupants at the Residential Properties

would eliminate human exposure to hazardous substances. Because contaminated soil would remain which exceeds levels which would otherwise allow for unrestricted residential use following remediation, institutional controls would need to be implemented and may include environmental easements/ restrictive covenants, deed notices, and/or zoning restrictions to limit future use of the properties.

The institutional controls would require compliance with an approved Site Management Plan which would restrict full use of the property to prevent any disturbance of the implemented remedy.

The capital cost of this alternative includes costs associated with demolition and off-Site disposal of the residential homes, just compensation and relocation assistance for the acquisition of the properties and relocation of the occupants, differential rent to tenants, and other legitimate relocation costs.

Alternative S3a: Excavation; Off-Site Disposal with Treatment

Capital Cost:	\$ 2,243,000
Present-Worth Cost:	\$ 2,243,000
Construction Time:	6 months to 1 year

This alternative includes the excavation of an estimated 5,800 cubic yards of contaminated soil comingled with fill at the Residential Properties, and off-Site disposal at a Resource Conservation and Recovery Act (RCRA) or Toxic Substances Control Act (TSCA) regulated landfill, as appropriate, based on the concentrations of contaminants in the excavated soil and fill. If necessary, to meet the requirements of the disposal facilities, treatment of the soil may be performed. Under this alternative, contaminated soil and fill found at the Residential Properties in excess of the PRGs would be excavated for off-Site disposal. Verification samples would be collected following excavation to confirm that all contaminated soil and fill in excess of the PRG has been removed. Once excavation activities have been completed, clean soil will be used as backfill, with the top six inches consisting of topsoil that would be planted with native grasses, shrubs, and/or trees. Clean backfill would meet the requirements for soil as set forth in 6 NYCRR Part 375.

The approximate areas requiring excavation are shown on Figure 3.

The construction time begins with the start of on-site construction activities. These activities could begin

several years after the selection of the remedy for OU1, as construction activities on the Residential Properties would not commence until after the sediments in the Creek Corridor are remediated, to prevent recontamination of the Residential Properties.

This alternative would not address contamination which exists at other commercial properties within the Corridor or in the Creek. As noted above, this contamination will be addressed by future operable units.

Alternative S3b: Excavation; Off-Site Disposal with Treatment; and Permanent Relocation

<i>Capital Cost:</i>	\$ 3,023,870
<i>Present-Worth Cost:</i>	\$ 3,023,870
<i>Construction Time:</i>	6 months to 1 year
<i>Resident Relocation</i>	1 year

Alternative S3b, includes the remedial measures included in Alternative S3a, and adds that the Residential Properties would be acquired, occupants of the Residential Properties would be relocated, and the structures demolished. Concurrent with demolition of the structures, security fencing would be installed to restrict access to the contaminated areas. Relocation of the occupants at the Residential Property would eliminate human exposure to hazardous substances.

The capital cost of this alternative includes costs associated with demolition and off-Site disposal of the residential homes, just compensation and relocation assistance for the acquisition of the properties and relocation of the occupants, differential rent to tenants, and other legitimate relocation costs.

Building Alternatives

Alternative B1: No Action

Estimated Capital Cost:	\$0
Estimated Annual O&M Cost:	\$0
Estimated Present Worth Cost:	\$0
Estimated Construction Timeframe:	0 years

Regulations governing the Superfund program generally require that the "No Action" alternative be evaluated to establish a baseline for comparison. Under this alternative, EPA would take no action at the former Flintkote Plant to prevent exposure to the contaminated structure.

Because a contaminated building would be left in place under this alternative, a review of the remedy every five years would be required.

Alternative B2: Building Demolition with Off-Site Disposal

Estimated Capital Cost:	\$874,980
Estimated Annual O&M Cost:	\$0
Estimated Present Worth Cost:	\$874,980
Estimated Construction Timeframe:	6 months

This alternative consists of the demolition of the remaining building at the former Flintkote Plant, located at 300 Mill Street in Lockport. Contaminated debris would be transported off-site for proper disposal. Because it is anticipated that the debris will be disposed of off-site, it is anticipated that there would be no need for institutional controls, no five-year review requirement, and long-term monitoring requirement in connection with this portion of the response action. However, the contaminants under the building will be evaluated in the future and addressed pursuant to a separate Proposed Plan and ROD.

The demolition of the building will provide access to conduct subsurface sampling through the basement floor to confirm whether a contaminant source area beneath the building exists and to perform the necessary removal of asbestos-containing debris in the basement, including the boiler and associated piping. As mentioned above, any contaminant source identified under the building would be evaluated and addressed, as appropriate, in a subsequent operable unit at the Site.

Debris designated for off-site disposal would be subjected to analysis for disposal parameters and transported off-site for treatment (as necessary) and disposal in accordance with applicable regulations. During the remedial design, decontamination of contaminated building materials would be considered to reduce the quantity of hazardous waste. Noncontaminated building debris could be crushed, stockpiled and reused on-Site as fill material once contamination at the property is addressed in a future operable unit.

EVALUATION OF ALTERNATIVES

In evaluating the remedial alternatives, each soil and building alternative is assessed against nine evaluation criteria set forth in federal regulation, namely, overall protection of human health and the environment, compliance with ARARs, long-term effectiveness and permanence, reduction of toxicity, mobility, or volume through treatment, short-term effectiveness, implementability, cost, and state and community

acceptance. Refer to the table on the page 13 for a more detailed description of the evaluation criteria.

This section of the Proposed Plan evaluates the relative performance of each alternative against the nine criteria, noting how each compares to the other options under consideration. While not a CERCLA remedy selection analysis, per se, a helpful analysis of the alternatives to address the soil contamination at the Residential Properties can be found in NYDEC's September 2009 FS Report. Information on the cost of the alternatives is provided in EPA's July 25, 2013, Supplemental FS. A detailed analysis of the former Flintkote Plant building demolition proposal can be found in NYSDEC's October 2005 *Remedial Alternatives Report*.

Overall Protection of Human Health

Soil Alternatives

All of the alternatives except Alternative S1 (No Action) would provide adequate protection of human health by either eliminating, reducing, or controlling risk through engineering controls, off-Site disposal/treatment, and/or institutional controls. Alternative S2a (Capping and Institutional Controls) would provide some protection to property owners/occupants from future exposure to contaminated soils through the placement of cover material, and through institutional controls. However, because the soil cover would not be constructed until after the remediation of the Creek sediments pursuant to another operable unit, Alternative S2a provides less protection for exposure to the contamination at the Site than the alternatives that recommend resident relocation. In addition, after Alternative S2a is implemented, contaminated soil and fill, though covered, would remain under the cap on the Residential Properties. Alternative S2b would enhance the protection of residents because they would relocate from the Site, but visitors or trespassers may still come into contact with the contaminated soil and fill at the Site both before and after the cover is constructed.

Alternatives S3a and S3b (Excavation) would remove soil and fill with concentrations of contaminants above the PRGs and, therefore, both would protect human receptors from contact with contaminants. Alternative S3b is also a protective alternative because it most limits the residents' exposure to contaminated soil and fill during the period required to investigate, propose, select, and implement a final remedy for the Creek Corridor and prevents visitors and trespassers from coming into contact with contaminated soil and fill after excavation.

There would be no long-term local human health

impacts associated with off-Site disposal because the contaminants would be removed from the Residential Properties to a secure location. Alternative S3a and S3b would eliminate the actual or potential exposure of residents to contaminated soils and fill following the construction of these alternatives.

Building Alternatives

Alternative B1 (No Action) provides no reduction in risk to human health. Additional migration of contaminants could occur over time under Alternative B1 as a result of disturbance by humans and natural processes. Alternative B2 (Demolition and Off-site Disposal) would remove the building and its associated contaminants and also constitute meaningful progress toward future response actions at the Site.

There would be no local human health impacts associated with off-Site disposal because the contaminants would be removed from the Site to a secure location. Alternative B2 would eliminate the actual or potential human exposure to the contaminated structures and provide a necessary, interim step toward addressing overall Site conditions.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)

Soil Alternatives

EPA has identified New York State's 6 NYCRR Part 375 as an ARAR, a "to-be considered", or an 'other guidance' to consider in addressing contaminated soil at the Residential Properties.

Alternative S1 (No Action) would not achieve cleanup levels for soil since no measures would be implemented and contaminants in the soil and fill, which exceed the cleanup levels, would remain in place. Alternatives S2a-b and S3a-b would either cap or remove soils exceeding the PRGs for the Residential Properties.

RCRA and TSCA are federal laws that mandate procedures for managing, treating, transporting, storing, and disposing of hazardous wastes and PCBs, respectively. All portions of RCRA that are applicable or relevant and appropriate to the proposed remedy for the Site would be met by Alternatives S1 through S3 and all portions of TSCA would be met by Alternatives S2a-b and S3a-b.

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, which provides regulations and guidance for the government in conducting relocation activities where property is

acquired, is not an environmental law, but it would be an ARAR for Alternatives S2b and S3b, which propose permanent relocation. This Act provides for uniform and equitable treatment of persons displaced from their homes by federal programs. All portions of the Relocation Act that are applicable to the proposed action would be satisfied under Alternatives S2b and S3b.

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), a Stage 1A Cultural Resource Investigation would be performed during the design phase to evaluate the existence of cultural and archaeological resources adjacent to the Creek that could be impacted by implementation of the proposed residential soil remedy.

Building Alternatives

There are no contaminant-specific, location-specific, or action-specific ARARs associated with Alternative B1.

RCRA and the Clean Air Act are federal laws that mandate procedures for managing, treating, transporting, storing, and disposing of hazardous substances and asbestos materials. All portions of RCRA that would apply to the building demolition would be met by Alternative B2. An evaluation conducted by NYSDEC for the former Flintkote Plant on Mill Street indicates that the remaining structure is not of historical significance.

Long-Term Effectiveness and Permanence

Soil Alternatives

Alternative S1 (No Action) provides no reduction in risk. Alternatives S2a-b would not be as permanent or effective over the long-term as Alternatives S3a-b because bank stabilization measures would potentially require periodic maintenance. In contrast, under Alternatives S3a-b, long-term risks would be eliminated because contaminated soils exceeding the PRGs would be permanently removed. Off-Site treatment/disposal of the contaminated soil at a secure, permitted hazardous waste facility is reliable because these types of facilities are designed with safeguards to secure the waste material.

Building Alternatives

Alternative B1 (No Action) provides no reduction in risk. Alternative B2 would be more permanent and effective over the long term than Alternative B1 because no action may not reliably reduce future risks of exposure to property owners/occupants. Under

Alternative B2, long-term risks would be eliminated because the contaminated building would be removed and efforts to evaluate and perform future response activities will be supported. Off-Site disposal of the contaminated building debris at a secure, permitted hazardous waste facility is reliable because the design of such facilities includes safeguards intended to secure the waste material.

Reduction of Toxicity, Mobility, or Volume Through Treatment

Soil Alternatives

Alternative S1 (No Action) would not achieve any reduction in the toxicity, mobility, or volume of contaminated soil and fill because the soil and fill would remain in place. Alternatives S2a-b (Capping and Institutional Controls) would reduce the mobility of and exposure to contaminants through capping, but capping would not reduce the volume or toxicity of contaminants currently at the Site. Alternatives S3a-b (Excavation) would reduce contaminant mobility volume, and exposure through removal and disposal of the soil and fill at an approved off-site facility. Furthermore, off-Site treatment, if required, would reduce the toxicity and volume of the contaminated soil and fill prior to land disposal.

Building Alternatives

Alternative B1 (No Action) would not achieve any reduction in the toxicity, mobility, or volume of contaminated building material. Alternative B2 (demolition with off-site disposal) would reduce contaminant mobility through the removal and disposal of the building debris at an approved off-site facility and support future activities to evaluate and potentially remove an additional contaminant source which is believed to exist under the building. Furthermore, off-Site treatment, when required, would reduce the toxicity and volume of the contaminated building debris at the Site prior to land disposal.

EVALUATION CRITERIA FOR SUPERFUND REMEDIAL ALTERNATIVES

Overall Protectiveness of Human Health and the Environment evaluates whether and how an alternative eliminates, reduces, or controls threats to public health and the environment through institutional controls, engineering controls, or treatment.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs) evaluates whether the alternative meets federal and state environmental statutes, regulations, and other requirements that pertain to the Site, or whether a waiver is justified.

Long-term Effectiveness and Permanence considers the ability of an alternative to maintain protection of human health and the environment over time.

Reduction of Toxicity, Mobility, or Volume (TMV) of Contaminants through Treatment evaluates an alternative's use of treatment to reduce the harmful effects of principal contaminants, their ability to move in the environment, and the amount of contamination present.

Short-term Effectiveness considers the length of time needed to implement an alternative and the risks the alternative poses to workers, the community, and the environment during implementation.

Implementability considers the technical and administrative feasibility of implementing the alternative, including factors such as the relative availability of goods and services.

Cost includes estimated capital and annual operations and maintenance costs, as well as present worth cost. Present worth cost is the total cost of an alternative over time in terms of today's dollar value. Cost estimates are expected to be accurate within a range of +50 to -30 percent.

State/Support Agency Acceptance considers whether the State agrees with EPA's analyses and recommendations, as described in the RI/FS and Proposed Plan.

Community Acceptance considers whether the local community agrees with EPA's analyses and preferred alternative. Comments received on the Proposed Plan are an important indicator of community acceptance.

Short-Term Effectiveness

Soil Alternatives

No short-term adverse impacts to the community would be expected for Alternative S1 (No Action). Minimal impacts to the surrounding community would be expected for Alternatives S2a and S2b since contaminated soils would not be significantly disturbed during the cap construction. The short-term impacts for the owners/occupants of the Residential Properties will be significant under Alternative S2b and Alternative S3b, as they will be relocated to new residences. Alternatives S3a and S3b present a higher short-term risk because of the greater potential for exposure associated with excavation and transportation of contaminated soil and fill.

Alternatives S2a-b and S3a-b would also cause an increase in truck traffic, noise and potentially dust in the surrounding community, and may cause potential impacts to workers during the performance of construction activities. Alternatives S3a-b may also cause additional exposure to the contaminated soil and fill being excavated and handled. However, proven procedures including engineering controls, personnel protective equipment, and safe work practices would be used to address potential impacts to workers and the community. For example, the work would be scheduled to coincide with normal working hours (e.g., 8 a.m. to 5 p.m. on week days and no work on weekends or holidays). In addition, trucking routes with the least disruption to the surrounding community would be utilized. Appropriate transportation safety measures would be required during the shipping of the contaminated material to the off-site disposal facility.

No additional human health impacts would be expected from Alternative S1. The risk of release during implementation of Alternatives S3a-b and somewhat less for Alternative S2a-b is principally limited to wind-blown soil transport or surface water run-off. Any potential impacts associated with dust and runoff would be minimized with proper installation and implementation of dust and erosion control measures and, for Alternative S3a-b, by performing the excavation and off-site disposal with appropriate health and safety measures to limit the amount of material that may migrate to a potential receptor.

No time is required for construction of Alternative S1 (No Action). Time required for implementation of Alternatives S2a-b (Capping and Institutional Controls) and S3a-b (Excavation) is estimated to take six months to one year, beginning after the implementation of the remedy for the Creek Corridor sediments.

Building Alternatives

No short-term adverse impacts to the community would be expected for Alternative B1 (No Action). Alternative B2 would pose a short-term impact, as the demolition of the building would cause an increase in truck traffic, noise, and potentially dust in the surrounding community, as well as cause potential impacts to workers during the performance of the demolition work. These potential impacts to the community (e.g., wind-blown dust transport and surface water runoff) could be created through deconstruction activities (demolition) and exposure to the contaminated building being demolished and handled. However, potential human health impacts associated with dust and runoff would be minimized with proper installation and implementation of dust and erosion control measures and by performing decontamination and demolition with appropriate health and safety measures to limit the amount of material that may migrate to a potential receptor. There are proven procedures including engineering controls, personnel protective equipment and safe work practice which would be used to mitigate potential impacts to workers and the community. The time required for implementation of Alternative B2 is estimated to be six months.

Implementability

Soil Alternatives

All technical components of Alternatives S2a-b and S3a-b would be easily implemented using conventional construction equipment and materials. The personnel who would operate the heavy equipment would be required to obtain appropriate Occupational Safety and Health Administration certifications (e.g., hazardous waste worker), in addition to being certified in the operation of the heavy equipment. Such personnel are readily available. Use of off-site hazardous and nonhazardous treatment/disposal facilities for the disposal of the contaminated soils are available. However, from an engineering perspective it is uncertain whether the residential structures would pose an impediment to implementing the cleanup. Engineering methods to address these concerns, such as lifting, moving or securing the structures, may be technically unfeasible or cost-prohibitive considering the construction method and condition of some of the structures, resulting in greater uncertainty as to its success. However, because these are residential properties, it is uncertain if institutional controls could be consistently and effectively enforced at the Residential Properties under Alternatives S2a and S3a.

Building Alternatives

No technical implementability concerns exist for the building alternatives. The technical components of Alternative B2 would be easily implemented using conventional construction equipment and materials. Off-Site hazardous and nonhazardous treatment/disposal facilities for the disposal of the contaminated building debris are available.

Cost

The estimated capital cost, operation and maintenance (O&M), and present worth cost are discussed in detail in EPA's Supplemental FS. The cost estimates are based on the best available information. Alternative S1 (No Action) has no cost because no activities are implemented. The present worth cost for Alternatives S2a-b and S3a-b are provided below. The estimated capital, O&M and present-worth costs for each of the alternatives are as follows:

Alternative	Capital Cost	Annual O&M Cost	Present Worth
1	\$0	\$0	\$0
2a	\$1,234,000	\$163,000	\$1,397,000
2b	\$2,014,870	\$163,000	\$2,177,870
3a	\$2,243,000	\$0	\$2,243,000
3b	\$3,023,870	\$0	\$3,023,870

Building Alternatives

No cost would be associated with Alternative B1. The estimated capital cost for Alternative B2, demolition of the former Flintkote Plant building, is \$874,980.

State/Support Agency Acceptance

NYSDEC concurs with the preferred alternative.

Community Acceptance

Community acceptance of the preferred alternative will be evaluated after the public comment period ends and will be described in the Responsiveness Summary section of the Record of Decision for this OU. The Record of Decision is the document that formalizes the selection of the remedy for an OU.

PREFERRED REMEDY

Based upon an evaluation of the remedial alternatives, EPA, with the concurrence of NYSDEC, proposes Soil Alternative S3b, Excavation and Relocation and Building Alternative B2, demolition of the former Flintkote Plant building at 300 Mill Street, as the Preferred Alternative.

Alternative S3b has the following key components: permanent relocation of property owners/tenants at the Residential Properties on Water Street, demolition of the houses, excavation of an estimated 5,800 cubic yards of contaminated soil from the approximately nine properties, off-site disposal of that contaminated soil, and the use of clean soil to backfill the excavated areas, with the top six inches consisting of topsoil that would be planted with native grasses, shrubs, and/or trees. Clean backfill would meet the requirements for soil as set forth in 6 NYCRR Part 375. EPA, with the concurrence of NYSDEC, also proposes Building Alternative B2 which includes demolition of the building located at 300 Mill Street. Contaminated demolition debris would be transported off-site for proper disposal. Noncontaminated debris could be used on-Site as fill material.

Because the Residential Properties are subject to periodic flooding from the Creek, remediation of the Residential Properties prior to the remediation of the contaminated sediments in the Creek would likely result in the recontamination of the Residential Properties. Under the preferred alternative, construction activities on the Residential Properties would commence after or concurrent with the implementation of the remedy for the Creek sediments. However, acquisition and relocation activities presented in the Preferred Alternative would commence upon issuance of this ROD. The demolition of the residential homes would be conducted after the residents have been relocated and security fencing would be installed to restrict access to the contaminated areas. The resulting demolition debris would be transported off-site for disposal at an approved facility. The cleanup of the contaminated sediments in the Creek will be the subject of a future Proposed Plan.

Excavated areas will be backfilled to final grade, compacted, and restored to pre-construction conditions, to the extent practicable. Because excavation will result in a significant reduction of on-site soils, clean backfill material will need to be imported to the Site. The top six inches of backfill will be a layer of topsoil, which will be seeded with grasses and planted with trees and shrubs.

Because the properties are located along a water body, an evaluation would also need to be performed of any cultural resource(s) that may exist at the Residential Properties. Initially, this would involve a review of past records or other historic documents related to the properties. If the evaluation determines that a cultural resource(s) may be present, a field investigation would be performed to determine the existence of and possibly remove any artifacts of historic value. The cultural

resource assessment and investigation would be performed during the design phase of the remedy.

The Preferred Alternative includes the demolition of the remaining building at the former Flintkote Plant located at 300 Mill Street. The demolition of the building will provide access to conduct subsurface sampling through the basement floor to determine whether a potential source area beneath the building exists and will reduce the threat of release of hazardous substances posed by the building itself. To the extent practicable, the resulting construction and demolition debris would be crushed, maintained, and used as fill on-site. Construction and debris not suitable for backfill would be disposed off-site at an approved facility. Maintenance of the security fence surrounding the former Flintkote Plant property would be continued until conditions at the the property are adequately addressed.

This alternative does not address contamination which exists at other commercial properties within the Corridor or the Creek. As indicated above, this contamination will be addressed by subsequent operable units. In addition, CERCLA requires that Sites be reviewed at least once every five years when contamination remains at a site.

Basis for the Remedy Preference

EPA is proposing Alternative S3b and Alternative B2 as the preferred remedy because of their protectiveness, permanence and short-term effectiveness.

Although soil Alternatives S2a and S2b would provide some protection from the migration of and exposure to contaminated soils through the placement of cover material, contaminated soil would remain in place requiring the implementation of institutional controls on the Residential Properties and long-term monitoring and maintenance of the soil covers. Alternative S3b would permanently remove the contaminated soil and would relocate the affected residents. Permanent relocation would address the uncertainty as to whether the soil cleanup could be performed effectively without the prior demolition of the residential structures. Due to the potential for flooding to re-contaminate the soils, engineering methods such as capping prove not to be cost-effective when compared to other alternatives that are protective of human health. Alternative S3b would also be implemented in a phased manner to prevent recontamination of the Residential Properties as a result of flooding which could occur if the Creek contamination is addressed after the Residential Properties. As such, EPA would initially move forward with the relocation of the affected residents, thereby eliminating the risk to the residents in the short and long term. Alternative B2 would permanently eliminate potential human exposure to the

former Flintkote Plant building which contains asbestos material, PAH residues and metals, and provide necessary access to a portion of the Site which will be further evaluated and addressed in the future under a subsequent operable unit. The implementation of Alternative B2 would employ engineering controls and safe work practices to mitigate exposure to dust and to protect workers and the local community.

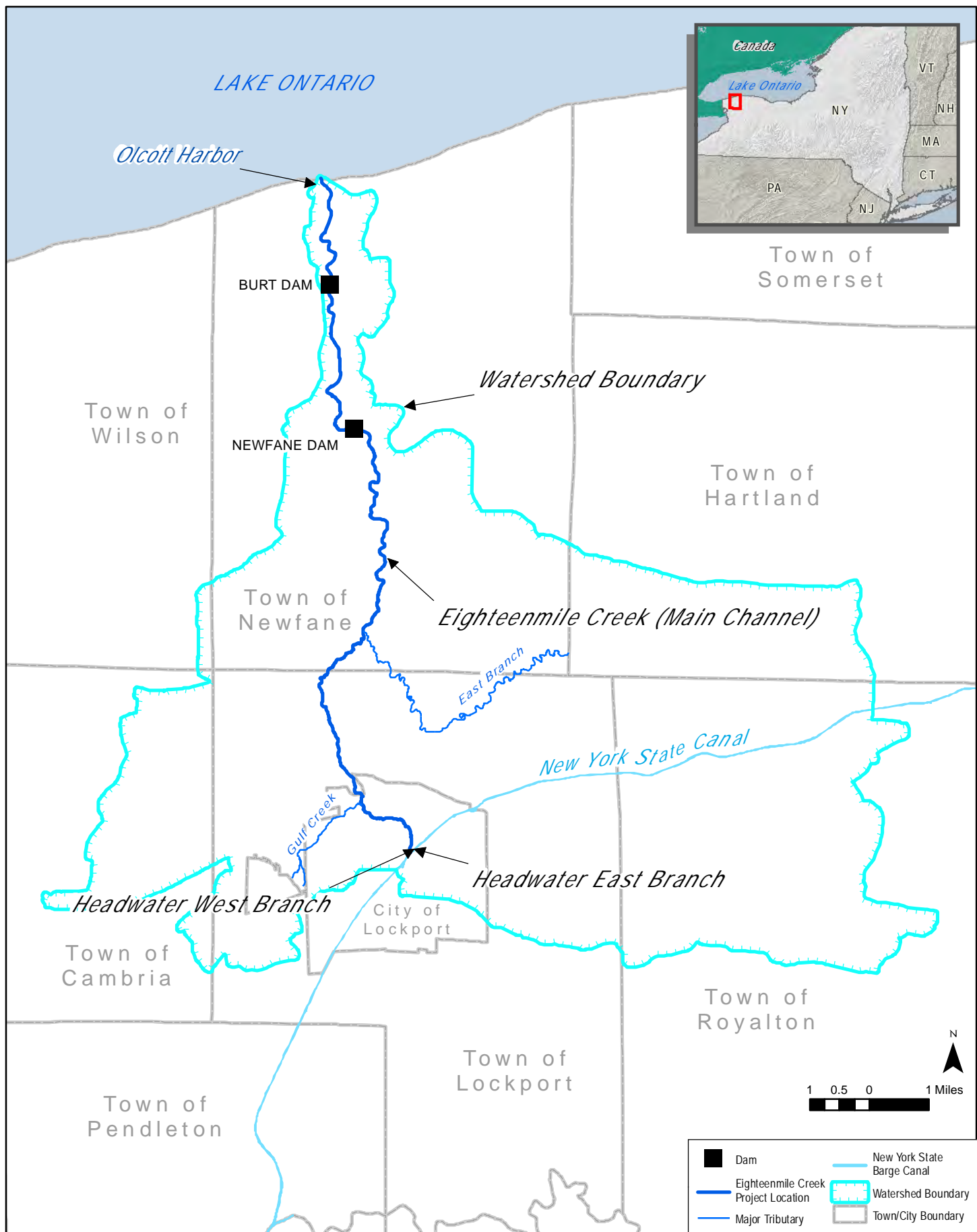
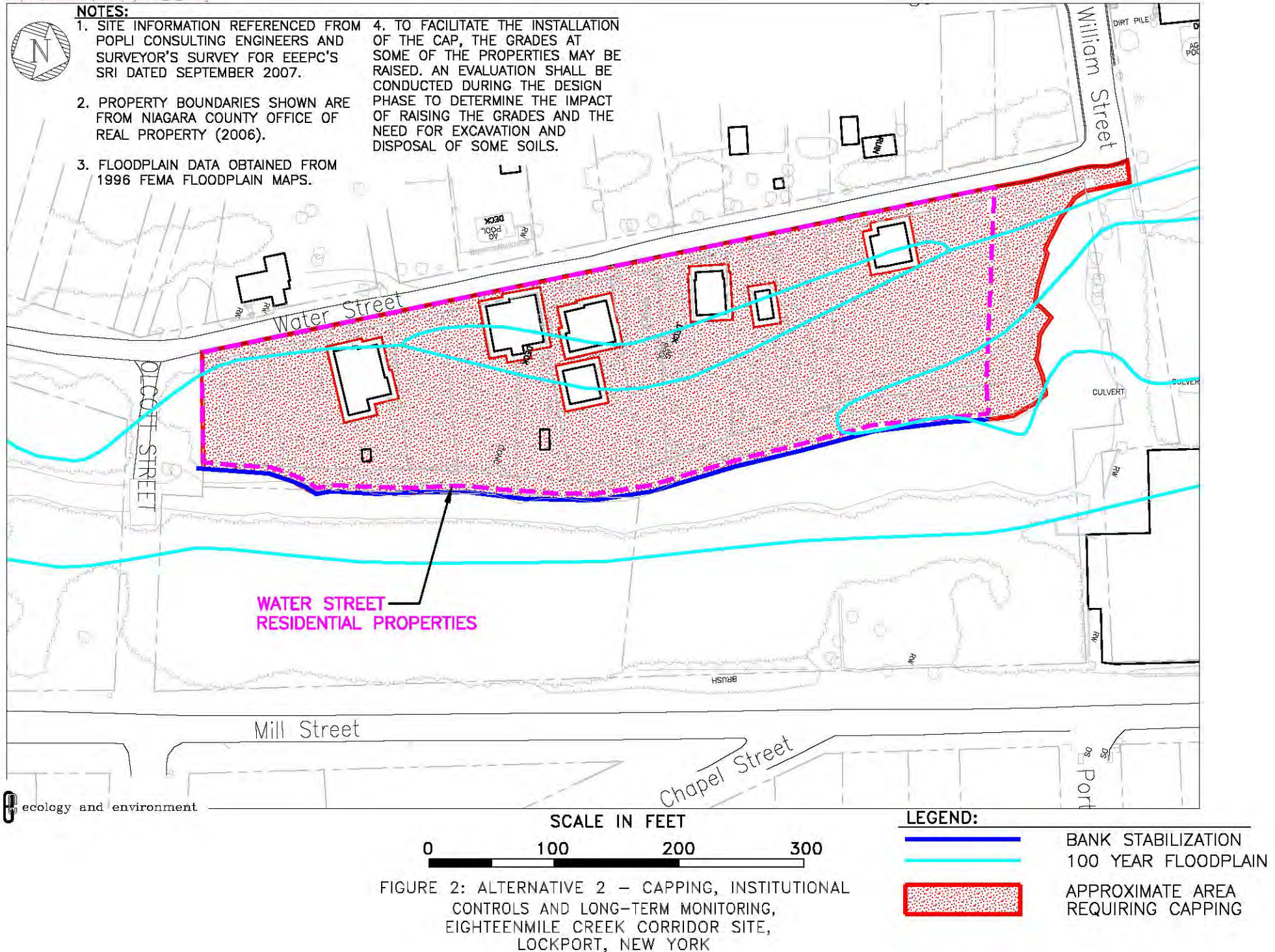


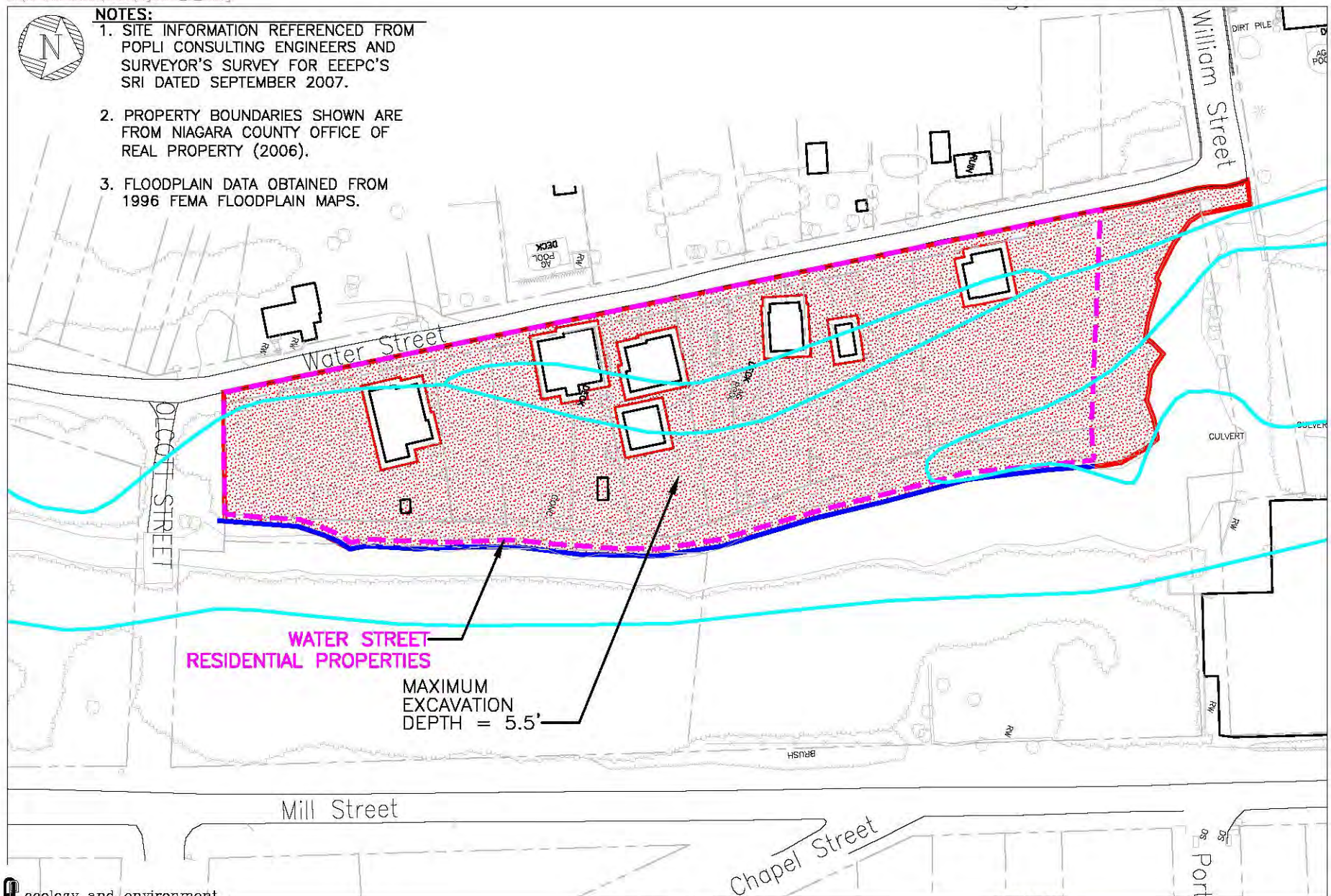
Figure 1 Eighteen Mile Creek Site Location





NOTES:

1. SITE INFORMATION REFERENCED FROM POPLI CONSULTING ENGINEERS AND SURVEYOR'S SURVEY FOR EEEPC'S SRI DATED SEPTEMBER 2007.
2. PROPERTY BOUNDARIES SHOWN ARE FROM NIAGARA COUNTY OFFICE OF REAL PROPERTY (2006).
3. FLOODPLAIN DATA OBTAINED FROM 1996 FEMA FLOODPLAIN MAPS.



ecology and environment

SCALE IN FEET

0 100 200 300

FIGURE 3: ALTERNATIVE 3 – EXCAVATION
EIGHTEENMILE CREEK CORRIDOR SITE,
LOCKPORT, NEW YORK

LEGEND:

- BANK STABILIZATION
- 100 YEAR FLOODPLAIN
- APPROXIMATE EXTENT OF SOIL EXCAVATION

Appendix V
Attachment B

Public Notice Tear Sheet



SEND HER YOUR NEWS

- WHO: Anne Calos
- CONTACT: 439-9222, ext. 6239 or anne.calos@lockportjournal.com
- NEWS: All items should be submitted at least five days before the desired publication date.

5K run added to the Niagara Celtic Heritage Festival

There'll be kilts a-flappin' as runners from far and wide join the Inaugural Niagara Celtic 5K race as part of the annual Celtic Fest in Olcott. Every year, the two-day festival adds something new to its pageantry and gaiety, and this year it's teaming up with the Newfane Women's Lacrosse Club to invite runners to take part.

The Niagara Celtic Heritage Festival and Highland Games is celebrating its 13th year on Sept. 14 and 15, and thanks to them, tens of thousands of people will experience a journey through the land of Celtic pride and heritage. The two-day festival spans the entire length of Krull Park north,

with separate areas such as Clan Row, the Market-place, the Food Court and The Highland Games field. Music and dancing will cover the Pavilion, the Celtic Arts Stage and the Glen. It's a step back into time for young and old alike.

The new 5K race offers a unique packet of goodies for registrants, but registration will be limited to only 200, so participants are encouraged to get registered now. The pre-registration fee is \$25 (\$30 on race day if any spots remain) and includes

an exclusive event T-shirt; two day passes to the Celtic Festival, two beverage tickets for use during the festival, an Awards Ceremony and After-Race Party on festival grounds at The Glen. Serious runners can expect computerized chip timing and scoring by ScoreThis, splits at mile markers and water halfway and results posted at www.score-this.com. Course certification is pending.

The race will begin and end near the festival entrance, at the lake side of Krull Park. Registration and check-in begins at 9 a.m. and registration packets for those pre-registered must be picked up by 9:45 a.m. The race begins at 10 a.m. and Celtic garb or themed

costumes are encouraged. While running in visored helmets, shields and swords may be difficult, expect to see many colorful clan tartans and perhaps a wench or two. It's sure to provide a fun photo opportunity for viewers along the way.

Back at the awards ceremony and after-party, awards will be presented in five age groups, from 14 and under, 15 to 19, and up to 75-plus. Registration online is simple (or print out the pdf form) and promoters expect the event to fill up quickly. All proceeds will benefit the Newfane Women's Lacrosse Club.

For more information, check out the off-site events list at NiagaraCeltic.com. While

you're there, you will find a complete schedule of events for the 2013 festival. Call Randy at 417-2410 with questions.

The festival itself offers non-stop entertainment, vendors, artisans, food, libations, demonstrations, live animals, parades, pageantry and more throughout the two-day event. The Highland games competitions include Caber Pole Toss, Sheaf Toss, Stone Throw and the display of skill is amazing to watch.

For those who love the haunting sound of bagpipes, this is the place to be. Pipe bands come from near and far to play throughout the festival. They are scheduled onstage at various times, and all bands mass for

the big parade at noon and 5 p.m. each day. On Saturday evening, the sun goes down and the bonfire burns while music and enchantment take center stage. The Gaelic Libations tents will provide beer, ale and mead. Catch and Release will perform and the McMahan School of Irish dance takes to the stage, as well as Searson and MaCarthyizm. Discounted admission tickets for all festival-goers (for one day or a two-day pass) are available now at the NiagaraCeltic.com website. The new 5K run is sure to become an annual event at the festival, so runners are encouraged to register to be part of the inaugural 200 participants.

INDEPENDENT LIVING

Celebrating 23 years of the Americans with Disabilities Act

“Every man, woman, and child with a disability can now pass through once-closed doors into a bright new era of equality, independence, and freedom,” said President George H. W. Bush at the signing of the landmark Americans with Disabilities Act (ADA) on July 26, 1990. The world's first comprehensive declaration of equality for people with disabilities has proven to be a real door-opener over the past 23 years. The ADA has empow-

ered people with disabilities to challenge decisions that are based on ignorance about the skills and abilities of people with functional limitations. It has created processes that provide a path for truth and a barrier for those who would tend to discriminate based on ignorance.

By providing a legal avenue, doors have been opened for people with disabilities that were closed before — situations based on the individual's abilities and not on a medical diagnosis. New construction of public accommodations is now accessible for people with disabilities of mobility and often visual impairments without a second thought. Individuals who are deaf can now interact quickly and effectively through video phone conferencing and texting

through cell phones. New technology is being incorporated into mainstream products, such as voice input/output, large print, better contrast, handles with better gripping ability, and non-skid surfaces, as well as products such as iPads, iPods and talking books. Overall, people with disabilities are seen as having rights as any other person, not second-class individuals who are expected to be taken care of. They are no longer seen as a burden but a resource with

appropriate technology to leverage the mind. Of course, there is room to open the ADA door further. It has given employers the ability to challenge the person they want to hire by pushing HR decisions into the legal realm. Also, the law brings responsibility to the person with a disability not to use their disability as a crutch, but to leave the begging behind and get into the mainstream to show our muster, value,

and worth as Americans. Independent Living of Niagara County, along with the Independent Living Centers in Erie and Genesee counties and the consumers we serve, will be celebrating the anniversary of the ADA today, as we do each year, with a community picnic at Hyde Park in Niagara Falls, Sheridan Park in Tonawanda, and Town of Batavia Kiwanis Park. Festivities to mark another type of “independence day” this month.

YOUNG SCULPTORS



CONTRIBUTED PHOTO

SUMMER FUN: Young artists participating in the Kenan Center's Whimsical Sculpture Project are shown how to spray paint their names cut from metal sheets by instructor Zack Boehler.

BULLETIN BOARD

SATURDAY Hot Country Liners to perform

The Hot Country Liners will perform at 11:30 a.m. Saturday at the Lockport Community Market at the Canal Street gazebo.

MONDAY Ladies Cruise Night planned

The theme for the Monday Night Cruise in Lockport is “Ladies Night,” and organizers are hoping that a lot of women will bring out their cars for this family, fun and free event. The cruise takes place starting at 6 p.m. at Ida Fritz Park, West and Park avenues. Women are invited with or without cars, as there will be line dancing, and Zumba offered, as well as just relaxing in your lawn chair and enjoying a glass

of wine from the Niagara Wine Trail. There will be women-owned businesses show-

ing their wares at tables throughout Ida Fritz Park. Also, there will be plenty of information available on

wellness, fashion, breast cancer awareness and

SEE BOARD ON PAGE 8A

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FREE Varicose Vein and Sclerotherapy Clinic
(for treatment of spider veins)
Varicose veins and heavy, painful legs can now be treated in the doctor's office with the VNUS Closure® procedure.
• Covered by most insurance plans
• Sclerotherapy are injections to treat spider veins.
• Minimally invasive
• Back to normal activity usually by the next day
• Less painful and bruising than laser
FREE VARICOSE VEIN SCREENING
Tuesday, July 30th • 4:30-6:30pm
Call 434-6141 to register or to schedule an appointment
Great Lakes Surgical Associates
Jeffrey J. Schratz, MD, FACS Robert W. Hodge, MD, FACS
160 East Avenue • Lockport
Participants should wear shorts or skirts for screening.

Appendix V
Attachment C

Public Meeting Sign-in Sheets



Eighteen Mile Creek Superfund site

PUBLIC MEETING

7:00pm on Tues., August 13 2013

SIGN IN HERE

4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY

First Name <i>1 KIDREE</i>	Last Name <i>FOSTER</i>	Suffix	
<input checked="" type="checkbox"/>	Address: Number and Street <i>207 Vicar St</i>		Apartment/Unit
DO NOT ADD TO MAILING LIST	City <i>Lockport</i>	State <i>NY</i>	Zip code <i>14094</i>
Organization	Email Address <i>@</i>		

First Name <i>Vicki</i>	Last Name <i>Hainle</i>	Suffix	
<input type="checkbox"/>	Address: Number and Street <i>8 Hillcrest Dr</i>		Apartment/Unit
DO NOT ADD TO MAILING LIST	City <i>Lockport</i>	State <i>NY</i>	Zip code <i>14094</i>
Organization <i>Lockport WWTP</i>	Email Address <i>lkptwastewater @ yahoo.com</i>		

First Name <i>S-J</i>	Last Name <i>BARONE</i>	Suffix	
<input type="checkbox"/>	Address: Number and Street <i>48/5 H Cambridge Dr</i>		Apartment/Unit
DO NOT ADD TO MAILING LIST	City <i>Lockport</i>	State <i>NY</i>	Zip code <i>14094</i>
Organization	Email Address <i>@</i>		

First Name <i>Jim</i>	Last Name <i>WARD</i>	Suffix	
<input type="checkbox"/>	Address: Number and Street <i>SENATOR MAZURZ OFFICE</i>		Apartment/Unit
DO NOT ADD TO MAILING LIST	City	State	Zip code
Organization	Email Address <i>JWARD @ NY SENATE . GOV</i>		

First Name <i>Shane</i>	Last Name <i>Wate</i>	Suffix	
<input type="checkbox"/>	Address: Number and Street <i>875 Willow St.</i>		Apartment/Unit
DO NOT ADD TO MAILING LIST	City <i>Lockport</i>	State <i>NY</i>	Zip code <i>14094</i>
Organization	Email Address <i>@</i>		



Eighteen Mile Creek Superfund site

MEETING

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SIGN IN HERE

4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY

First Name JOAN		Last Name Hutchison		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 6761 Slayton Set Rd			Apartment/Unit	
	City Lockport			State NY	Zip code 14094
	Organization Email Address qhutch1980 @ live.com				

First Name Kristen Davidson		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
	City			State	Zip code
	Organization Email Address kxdavids @ gw.dec.state.ny.us				

First Name Kimi Suddon		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 81 Olcott St			Apartment/Unit	
	City Lockport ALF			State NY	Zip code 14094
	Organization Email Address @				

First Name		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
	City			State	Zip code
	Organization Email Address @				

First Name		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
	City			State	Zip code
	Organization Email Address @				



Eighteen Mile Creek Superfund site

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4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY

First Name	CARLA		Last Name	SPERANZA		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street					Apartment/Unit	
	6438 LINCOLN AVE						
	City			State	Zip code		
LOCKPORT			NY	14094			
Organization			Email Address				
Town of Lkpt Democrats			@				

First Name	MARIA		Last Name	MCQUADE		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street					Apartment/Unit	
	S. Elmwood Ave						
	City			State	Zip code		
Buffalo			NY	14202			
Organization			Email Address				
Sen. Schumer			maria-mcquade @ schumer.senate.gov				

First Name	Holly		Last Name	Lee		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street					Apartment/Unit	
	117 Water st						
	City			State	Zip code		
LKPT			NY	14094			
Organization			Email Address				
			Holly Lee @ 06 @ yahoo				

First Name	Diane		Last Name	TUOHAY		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street					Apartment/Unit	
	790 Walnut St.						
	City			State	Zip code		
Lockport			N.Y.	14094			
Organization			Email Address				
			@				

First Name			Last Name			Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street					Apartment/Unit	
	City			State	Zip code		
Organization			Email Address				
			@				



Eighteen Mile Creek Superfund site
PUBLIC MEETING
7:00pm on Tues., August 13 2013

SIGN IN HERE

4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY

First Name <i>Patrick</i>	Last Name <i>Delaney</i>	Suffix <i>II</i>	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>244 SEABERT AVE</i>		Apartment/Unit
	City <i>DEPEW</i>	State <i>NY</i>	Zip code <i>14043</i>
Organization <i>YNN</i>	Email Address <i>pdelaney57889@gmail.com</i>		

First Name <i>Ellen</i>	Last Name <i>Kander</i>	Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>203 JACKSON ST</i>		Apartment/Unit
	City <i>LOCKPORT</i>	State <i>NY</i>	Zip code <i>14094</i>
Organization	Email Address <i>bidpitchgweena@yahoo</i>		

First Name <i>Adrienne</i>	Last Name <i>Sutton</i>	Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>47 JESSIE HWY</i>		Apartment/Unit
	City	State <i>NY</i>	Zip code <i>14094</i>
Organization	Email Address <i>@</i>		

First Name <i>Elizabeth</i>	Last Name <i>Holland</i>	Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>10 WATER ST</i>		Apartment/Unit
	City <i>Lockport</i>	State <i>NY</i>	Zip code <i>14094</i>
Organization	Email Address <i>liz @ lizholland.com</i>		

First Name <i>Ashley</i>	Last Name <i>Hirtzel</i>	Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>WRBF NEWS</i>		Apartment/Unit
	City	State	Zip code
Organization	Email Address <i>@</i>		



Eighteen Mile Creek Superfund site

MEETING

7:00pm, Tues., August 13 2013

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4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY

First Name MATTHEW		Last Name MACNEIL		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 2815 WHEELER DR SUITE 13			Apartment/Unit	
	City WILLIAMSVILLE			State NY	Zip code 14221
Organization Rep. CHRIS CURRINS		Email Address Matt.Macneil @ mail.house.gov			

First Name Douglas		Last Name Sibolski		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 611 West Jackson			Apartment/Unit	
	City Lockport			State NY	Zip code 14094
Organization Lkpt wastewater Treatment		Email Address dsibolski @ clockport.com			

First Name Janet		Last Name Ward		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 5988 Idk Rd.			Apartment/Unit	
	City Newfane, N.Y.			State N.Y.	Zip code 14108
Organization		Email Address @			

First Name JOE		Last Name OLANICK		Suffix	
<input checked="" type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 170 GAIT AVE			Apartment/Unit	
	City LOCKPORT			State NY	Zip code 14094
Organization LOCKPORT UNION-SUN		Email Address @			

First Name PAT SCHRAEDER		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
	City LOCKPORT			State NY	Zip code 14094
Organization CITY OF LOCKPORT		Email Address PWSPAT40 @ AOL.COM			



Eighteen Mile Creek Superfund site
PUBLIC MEETING
7:00pm on Tues., August 13 2013

SIGN IN HERE

4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY

First Name <i>William</i>		Last Name <i>Sakawa</i>		Suffix	
<input checked="" type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>4898 Upper mt rd</i>			Apartment/Unit	
	City <i>Lockport,</i>			State <i>ny</i>	Zip code <i>14094</i>
Organization <i>JUOF 463 operating Engineers</i>			Email Address <i>@</i>		

First Name <i>Kristina</i>		Last Name <i>Marrison</i>		Suffix <i>Miss</i>	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>99 Water St</i>			Apartment/Unit	
	City <i>Lkpt NY</i>			State <i>NY</i>	Zip code <i>14094</i>
Organization			Email Address <i>Kristm471 @ gmail.com</i>		

First Name <i>Harold</i>		Last Name <i>Ryan</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>6108 Walnut st.</i>			Apartment/Unit	
	City <i>Newfano</i>			State <i>NY</i>	Zip code <i>14108</i>
Organization			Email Address <i>@</i>		

First Name <i>JOHN</i>		Last Name <i>LOMBARDI</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>P O BOX 1390</i>			Apartment/Unit	
	City <i>LOCKPORT</i>			State <i>NY</i>	Zip code
Organization <i>ALDREMAN CITY OF LOCKPORT FIRST WARD</i>			Email Address <i>LOCKPORTFIRST@ AOL.COM</i>		

First Name <i>Roy</i>		Last Name <i>Masan</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>4 Dock Street</i>			Apartment/Unit	
	City <i>Annapolis</i>			State <i>Md</i>	Zip code <i>21401</i>
Organization <i>Law Offices of Royl. Masan</i>			Email Address <i>rim @ roymasanlaw.com</i>		



Eighteen Mile Creek Superfund site
PUBLIC MEETING
7:00pm on Tues., August 13 2013

SIGN IN HERE

4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY

First Name SAC RUSATERI		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 464 Vine ST			Apartment/Unit	
	City Lkpt			State N.Y.	Zip code 14094
	Organization Email Address @				

First Name JOF		Last Name KIBLER		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 14 CLEVELAND PLACE			Apartment/Unit	
	City LOCKPORT NY			State	Zip code
	Organization GLOMERAL AT COLICE Email Address @				

First Name RON		Last Name GWOZDEK		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 5467 Upper MTW RD			Apartment/Unit	
	City lockport			State NY	Zip code 14094
	Organization NIA CO Health Dept Email Address ronald.gwozdek @ NIAGARA COUNTY .com				

First Name Michael		Last Name Scarano		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 202 77th St			Apartment/Unit 3	
	City Niagara Falls			State NY	Zip code 14304
	Organization clean Harbors Email Address scaranom @cleanharbors.com				

First Name Carl		Last Name Stiles		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 172 Erie Street			Apartment/Unit	
	City lockport			State NY	Zip code 14094
	Organization Email Address @				



Eighteen Mile Creek Superfund site

MEETING

7:00pm, Tues., August 13 2013

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4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY

First Name Diane		Last Name Williams		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
	City Lockport			State NY	Zip code 14094
Organization		Email Address @			

First Name Mary		Last Name Beaver		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 104 Nicholls St			Apartment/Unit	
	City Lockport, N.Y.			State NY	Zip code 14094
Organization		Email Address @			

First Name Joseph		Last Name Loiacano		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 118 Windermere Rd			Apartment/Unit	
	City Lockport NY			State NY	Zip code 14094
Organization		Email Address @			

First Name Anthony		Last Name Boyne		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 282 Chapel St			Apartment/Unit	
	City lockport			State NY	Zip code 14094
Organization		Email Address @			

First Name Anthony		Last Name Butera		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 282 Chapel St			Apartment/Unit	
	City lockport			State NY	Zip code 14094
Organization		Email Address ExecutiveLandscapersCo @ Gmail . Com			



Eighteen Mile Creek Superfund site

PUBLIC MEETING

7:00pm on Tues., August 13 2013

SIGN IN HERE

**4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY**

First Name <i>Tim</i>		Last Name <i>Regester</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>4268 Beach Rdg RG</i>			Apartment/Unit	
	City <i>N. Tonn</i>			State <i>NY</i>	Zip code <i>14120</i>
	Organization Email Address <i>@</i>				

First Name <i>Selma</i>		Last Name <i>Thomas</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>90 water st</i>			Apartment/Unit	
	City <i>Lockport</i>			State <i>NY</i>	Zip code <i>14094</i>
	Organization Email Address <i>@</i>				

First Name <i>David</i>		Last Name <i>Pettigrew</i>		Suffix <i>II</i>	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>90 water st</i>			Apartment/Unit	
	City <i>Lockport</i>			State <i>NY</i>	Zip code <i>14094</i>
	Organization Email Address <i>Dyrus/886 @ Gmail.com</i>				

First Name <i>Denise Beshaw</i>		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>181 Jackson St</i>			Apartment/Unit	
	City <i>Lockport</i>			State <i>NY</i>	Zip code <i>14094</i>
	Organization Email Address <i>dbeshaww @ aol.com</i>				

First Name <i>Kikki Casan</i>		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>Medin</i>			Apartment/Unit	
	City <i>Lockport-Retailer</i>			State	Zip code
	Organization Email Address <i>reason @ metrowny.com</i>				



Eighteen Mile Creek Superfund site

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4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY

First Name <i>Patricia</i>		Last Name <i>Prandall</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>286 Chapel St</i>			Apartment/Unit <i>1</i>	
	City <i>Lockport</i>			State <i>NY</i>	Zip code <i>14094</i>
Organization		Email Address <i>PRANDALL @ Buffalo.edu</i>			

First Name <i>Norm</i>		Last Name <i>Aller</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>1 Lock Plaza</i>			Apartment/Unit	
	City <i>Lockport</i>			State <i>NY</i>	Zip code <i>14094</i>
Organization <i>City of Lockport</i>		Email Address <i>nallen @ elockport.com</i>			

First Name <i>Hagi Nassan</i>		Last Name <i>Nassan</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>644 State St</i>			Apartment/Unit	
	City <i>Lancaster</i>			State <i>PA</i>	Zip code <i>17603</i>
Organization <i>Skeo Solutions</i>		Email Address <i>hnassan @ skeo.com</i>			

First Name <i>Anthony</i>		Last Name <i>170 Lincoln</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>6372 Jennifer Dr.</i>			Apartment/Unit	
	City <i>Lockport</i>			State <i>NY</i>	Zip code <i>14094</i>
Organization		Email Address <i>716mokinro @ gmail.com</i>			

First Name <i>Medin - WUB IV</i>		Last Name <i>Elmwood Ave</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>507 Elmwood Ave</i>			Apartment/Unit	
	City <i>Fortune</i>			State <i>MA</i>	Zip code <i>14217</i>
Organization		Email Address <i>@</i>			



Eighteen Mile Creek Superfund site

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4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY

First Name <i>Phyllis J. Green</i>		Last Name		Suffix	
<input checked="" type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>494 South St</i>			Apartment/Unit <i>Apt B</i>	
	City <i>Lockport NY</i>			State	Zip code <i>14094</i>
	Organization		Email Address <i>@</i>		

First Name <i>Dana Pieszala</i>		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>6643 Heather Dr</i>			Apartment/Unit	
	City <i>Lockport</i>			State <i>NY</i>	Zip code <i>14094</i>
	Organization		Email Address <i>dpieszala@gmail.com</i>		

First Name <i>Leann</i>		Last Name <i>Firene</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>400 Willow St</i>			Apartment/Unit	
	City <i>Lockport</i>			State <i>NY</i>	Zip code <i>14094</i>
	Organization		Email Address <i>@</i>		

First Name <i>Ruth</i>		Last Name <i>Tuertes</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>56 First St</i>			Apartment/Unit	
	City <i>Lockport</i>			State <i>NY</i>	Zip code <i>14094</i>
	Organization		Email Address <i>Rfuert1970@yahoo.com</i>		

First Name <i>DARCY TONE</i>		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>183 EAST AVE</i>			Apartment/Unit	
	City <i>Lockport</i>			State	Zip code
	Organization		Email Address <i>@</i>		



Eighteen Mile Creek Superfund site

PUBLIC MEETING

7:00pm on Tues., August 13 2013

SIGN IN HERE

4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY

First Name David		Last Name Shufelt		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 139 Jackson Street			Apartment/Unit	
	City Lockport, NY		State N.Y.	Zip code 14094	
Organization		Email Address @			

First Name Zoe		Last Name Shufelt		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 139 Jackson St			Apartment/Unit	
	City Lockport		State NY	Zip code 14094	
Organization homeowner		Email Address zoen05of12@yahoo.com			

First Name James		Last Name Jackson		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 149 Jackson st			Apartment/Unit	
	City Lockport		State NY	Zip code 14094	
Organization homeowner		Email Address Jaynkeel@aol.com			

First Name Linda		Last Name Killion		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 7434 Old Dysinger Rd			Apartment/Unit	
	City Lockport		State NY	Zip code 14094	
Organization		Email Address @			

First Name JAMES		Last Name Killion		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 7434 OLD DYSINGER RD			Apartment/Unit	
	City Lockport NY		State NY	Zip code 14094	
Organization		Email Address @			



Eighteen Mile Creek Superfund site

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4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY

First Name Daniel	Last Name Berry	Suffix	
<input type="checkbox"/>	Address: Number and Street		Apartment/Unit
DO NOT ADD TO MAILING LIST	City Lockport	State NY	Zip code 14094
Organization	Email Address @		

First Name Patricia	Last Name Deachman	Suffix	
<input type="checkbox"/>	Address: Number and Street 144 Esauk Street		Apartment/Unit
DO NOT ADD TO MAILING LIST	City Lockport	State NY	Zip code 14094
Organization	Email Address @		

First Name Stefanie	Last Name Siderfsava	Suffix	
<input checked="" type="checkbox"/>	Address: Number and Street 248 N. Adam St.		Apartment/Unit
DO NOT ADD TO MAILING LIST	City Lockport	State NY	Zip code 14094
Organization	Email Address @		

First Name PAT	Last Name Butera	Suffix	
<input type="checkbox"/>	Address: Number and Street 282 Chapel St		Apartment/Unit
DO NOT ADD TO MAILING LIST	City Lockport	State NY	Zip code 14094
Organization	Email Address @		

First Name Mark	Last Name Mitchison	Suffix	
<input type="checkbox"/>	Address: Number and Street 6261 SLAYTON ST.		Apartment/Unit
DO NOT ADD TO MAILING LIST	City Lockport	State NY	Zip code 14094
Organization	Email Address @		



Eighteen Mile Creek Superfund site

PUBLIC MEETING

7:00pm on Tues., August 13 2013

SIGN IN HERE

4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY

First Name PHYLLIS	Last Name GAWVE	Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 31 BUTLER ST		Apartment/Unit
	City LOCKPORT	State NY	Zip code 14094
	Organization Email Address @		

First Name Margie	Last Name Swan	Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 5809 Comstock		Apartment/Unit
	City Lkpt.	State NY	Zip code 14094
	Organization Email Address @		

First Name Nanette	Last Name Smgleton	Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 195 Washington St		Apartment/Unit
	City Lockport	State NY	Zip code 14094
	Organization Email Address @		

First Name Joe	Last Name Wientz	Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 59 Chapel St.		Apartment/Unit
	City LKPT	State NY	Zip code 14094
	Organization Email Address @		

First Name Ken	Last Name Genewick	Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street 38 Harrison Ave.		Apartment/Unit
	City Lockport	State NY	Zip code 14094
	Organization Email Address @		



Eighteen Mile Creek Superfund site

MEETING

7:00pm, Tues., August 13 2013

SIGN IN HERE

4-H Training Center
Niagara County Fairgrounds
4487 Lake Road
Lockport, NY

First Name <u>Joe</u>	Last Name <u>Speight</u>	Suffix <u>Jr</u>
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <u>471 MARKET ST (P.O. Box 619)</u>	Apartment/Unit
	City <u>Lockport</u>	State <u>NY</u>
		Zip code <u>14095</u>
Organization	Email Address <u>SPEIGHT JF @ hotmail.com</u>	

First Name <u>Sylvia</u>	Last Name <u>Speight</u>	Suffix
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <u>471 MARKET ST. (P.O. Box 619)</u>	Apartment/Unit
	City <u>Lockport</u>	State <u>NY</u>
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First Name <u>DONALD</u>	Last Name <u>YEARKE</u>	Suffix
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <u>73 MARLTON DR</u>	Apartment/Unit
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<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <u>726 Exchange St 5072511</u>	Apartment/Unit
	City <u>Buffalo</u>	State <u>NY</u>
		Zip code <u>14210</u>
Organization <u>Sen. Gillibrand</u>	Email Address <u>melissa Aratello @ gillibrand.senate.gov</u>	

First Name <u>James</u>	Last Name <u>Stiles</u>	Suffix
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <u>143 WATER ST</u>	Apartment/Unit
	City <u>Lockport</u>	State <u>NY</u>
		Zip code <u>14094</u>
Organization	Email Address <u>JimStiles714 @ Gmail.com</u>	



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PUBLIC MEETING
7:00pm on Tues., August 13 2013

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First Name <i>Rick</i>		Last Name <i>WDEGROVE</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>4688 DAY RD</i>			Apartment/Unit	
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Organization <i>NIAG.CO. LEGISLATURE</i>			Email Address <i>rene@msvlaw.com</i>		

First Name <i>Michael</i>		Last Name <i>HOUSE</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>2749 LOCKPORT ROAD</i>			Apartment/Unit	
	City <i>NIAGARA FALLS</i>			State <i>NY</i>	Zip code <i>14305</i>
Organization <i>SEVENSON ENVIRONMENTAL</i>			Email Address <i>JMHOUSE@SEVENSON.COM</i>		

First Name <i>Mary</i>		Last Name <i>NEWMAN</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>96 HICKORY ST</i>			Apartment/Unit	
	City <i>LOCKPORT</i>			State <i>NY</i>	Zip code <i>14094</i>
Organization			Email Address <i>@</i>		

First Name <i>ART</i>		Last Name <i>MUGGERBERG</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>281 MILL STREET</i>			Apartment/Unit	
	City <i>LOCKPORT</i>			State <i>NY</i>	Zip code <i>14094</i>
Organization			Email Address <i>LOWERTOWNRT@VERIZON.NET</i>		

First Name <i>Brianna</i>		Last Name <i>FUERST</i>		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street <i>56 Frost St</i>			Apartment/Unit	
	City <i>LOCKPORT</i>			State <i>NY</i>	Zip code <i>14094</i>
Organization			Email Address <i>@</i>		



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First Name <i>Steve</i>	Last Name <i>Malcomb</i>	Suffix	
<input type="checkbox"/>	Address: Number and Street <i>113 Water st</i>		Apartment/Unit
DO NOT ADD TO MAILING LIST	City <i>Lockport, N.Y.</i>	State <i>N.Y.</i>	Zip code <i>14094</i>
Organization	Email Address <i>@</i>		

First Name <i>James</i>	Last Name <i>Manzella</i>	Suffix <i>M</i>	
<input type="checkbox"/>	Address: Number and Street <i>373 Ransom Oaks Dr.</i>		Apartment/Unit
DO NOT ADD TO MAILING LIST	City <i>E. Amherst</i>	State <i>NY</i>	Zip code <i>1405</i>
Organization	Email Address <i>James Manzella @ yahoo.com</i>		

First Name <i>Karen</i>	Last Name <i>Stiles</i>	Suffix	
<input type="checkbox"/>	Address: Number and Street <i>172 Erie St</i>		Apartment/Unit
DO NOT ADD TO MAILING LIST	City <i>Lockport</i>	State <i>NY</i>	Zip code <i>14094</i>
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First Name <i>Michael J</i>	Last Name <i>Pillot</i>	Suffix	
<input type="checkbox"/>	Address: Number and Street <i>167 Waterman St.</i>		Apartment/Unit
DO NOT ADD TO MAILING LIST	City <i>Lockport</i>	State <i>NY</i>	Zip code <i>14094</i>
Organization	Email Address <i>@</i>		

First Name <i>Dawn M.</i>	Last Name <i>Pillot</i>	Suffix	
<input type="checkbox"/>	Address: Number and Street <i>167 Waterman St.</i>		Apartment/Unit
DO NOT ADD TO MAILING LIST	City <i>Lockport</i>	State <i>NY</i>	Zip code <i>14094</i>
Organization	Email Address <i>@</i>		



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First Name		Last Name		Suffix	
BRIAN		EVANS			
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
	4267 PERRY RD.				
	City		State	Zip code	
LOCKPORT		NY	14094		
Organization		Email Address			
		BEVANS102 @ GMAIL.COM			

First Name		Last Name		Suffix	
MIKE		WEBER			
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
	287 MILL ST				
	City		State	Zip code	
LOCKPORT		NY	14094		
Organization		Email Address			
		1138mw@gmail.com			

First Name		Last Name		Suffix	
RICHARD		WOODBIDGE			
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
	248 N ADAM ST.				
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LOCKPORT		NY	14094		
Organization		Email Address			
McCollum Orchards		RGWoodbridge @ gmail.com			

First Name		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
	City		State	Zip code	
Organization		Email Address			
		@			

First Name		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
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First Name <i>Shirley</i>	Last Name <i>Nicholas</i>	Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street		Apartment/Unit
	City	State	Zip code
Organization	Email Address @		

First Name	Last Name	Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street		Apartment/Unit
	City	State	Zip code
Organization	Email Address @		

First Name	Last Name	Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street		Apartment/Unit
	City	State	Zip code
Organization	Email Address @		

First Name	Last Name	Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street		Apartment/Unit
	City	State	Zip code
Organization	Email Address @		

First Name	Last Name	Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street		Apartment/Unit
	City	State	Zip code
Organization	Email Address @		



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First Name		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
	City		State	Zip code	
Organization		Email Address @			

First Name		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
	City		State	Zip code	
Organization		Email Address @			

First Name		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
	City		State	Zip code	
Organization		Email Address @			

First Name		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
	City		State	Zip code	
Organization		Email Address @			

First Name		Last Name		Suffix	
<input type="checkbox"/> DO NOT ADD TO MAILING LIST	Address: Number and Street			Apartment/Unit	
	City		State	Zip code	
Organization		Email Address @			

Appendix V
Attachment D

Public Meeting Transcript

1
2 **UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
3 **EIGHTEEN MILE CREEK SUPERFUND SITE**
4 **PUBLIC MEETING**

5
6 Tuesday, August 13, 2013

7 7:00 PM

8
9 4-H Training Center
10 Niagara County Fairgrounds
11 4487 Lake Road
12 Lockport, New York 14094
13

14
15 **APPEARANCES (USEPA REGION 2):**

16 **MICHAEL BASILE**, Community
17 Involvement Coordinator

18 **TOM TACCONE**, Remedial Project
19 Manager

20 **PIETRO MANNINO**, Remediation
21 Section Chief
22

23 **HEARING REPORTER:** Carrie A. Fisher

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170 Franklin Street, Suite 601, Buffalo, New York 14202
716-853-5544

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—EIGHTEEN MILE CREEK PUBLIC MEETING - 08/13/13—

1 MR. BASILE: Good evening, ladies and
2 gentlemen. Can you hear me in the back okay?
3 My name is Mike Basile. On behalf of the
4 United States Environmental Protection Agency,
5 I would like to welcome you to the Eighteen
6 Mile Creek Proposed Plan Public Meeting.
7 There is a few things I would like to go over
8 before I call upon our project manager, and I
9 just ask you to kind of bear with us. We have
10 had a few little technical difficulties. We
11 have a PowerPoint presentation, and it's going
12 to be displayed on the screen. Unfortunately,
13 because of the machine, we have another
14 machine coming. It's going to have a purple
15 background. We do have our contractor that
16 has copies of the slides available. If you
17 would like a copy of the slides, raise your
18 hand and Deepali will pass them out to you.
19 She is right here. While she is doing that,
20 you will be able to follow along with the
21 presentation.

22 First of all, let me say we were here in
23 June, and we're really happy to be back just

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1 about 60 some days later. As we indicated to
2 you in June, we would come back to you this
3 summer with a proposed plan. We did release
4 the proposed plan to the public, and we are
5 now in a public comment period which ends on
6 August the 26th. And this evening we have a
7 stenographer with us to capture all of our
8 comments as well as your questions and the
9 answers we deliver to you. Just keep your
10 hands up, and we will get you a copy of the
11 slides.

12 There are a few people in the audience
13 that I would like to introduce that will not
14 have a speaking role, but they're here. And
15 at this time, I am going to ask and recognize
16 from the New York State Department of
17 Environmental Conservation, Greg Sutton, Greg.
18 From US Congressman's Chris Collins' Office,
19 Matt MacNeil. He is in the back. New York
20 State Senator George Maziarz's Office, Jim
21 Ward. Jim is right there. And Niagara County
22 Legislator from the 12th District, Rick
23 Updegrove. Rick.

—EIGHTEEN MILE CREEK PUBLIC MEETING - 08/13/13—

1 With our agency, we have the -- I have to
2 keep remembering your title. He is the
3 Remediation Section Chief for Western New
4 York, Pietro Mannino. And our risk assessor,
5 Dr. Marian Olsen. Yes, sir?

6 MR. SCHRADER: I am Pat Schrader, City
7 of Lockport Alderman.

8 MR. BASILE: Okay.

9 MR. SCHRADER: Also here with me is Don
10 Lombardi, Joe Kibler, Kenny Genewick. The
11 mayor is out of town as is Anne McCaffrey, and
12 I have a letter from the mayor to read.

13 MR. BASILE: Wonderful. Thank you for
14 standing and being recognized, and I am sorry
15 for the oversight. I am glad. Thank you.

16 AUDIENCE MEMBERS: It's not an
17 oversight.

18 MR. BASILE: At this time, before we get
19 into the presentation, we are going to present
20 to you the proposed plan in its entirety.
21 We're also going to present to you the
22 preferred alternative, but we're just going to
23 ask for your indulgence while our project

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EIGHTEEN MILE CREEK PUBLIC MEETING - 08/13/13

1 manager, Tom Taccone, gives the presentation
2 and then we're going to go into questions and
3 answers. When we get into questions and
4 answers, I am going to ask the public and the
5 elected officials to use that microphone right
6 there. And because we do have a stenographer
7 capturing all of our comments, we're going to
8 ask that you speak loud and clearly. I will
9 recognize you to go to the microphone. We're
10 going to need the spelling of your last name
11 and of course just state your first name.
12 Like in my case, it would be Mike Basile,
13 B-A-S-I-L-E. That's all we need. We don't
14 need your address or anything like that.

15 Let me just tell you that first of all, I
16 am the committee involvement coordinator for
17 EPA. We have an office in Buffalo. I work
18 for the region, Region 2. We cover New York,
19 New Jersey, the Virgin Islands, and Puerto
20 Rico. Next slide, Tom. Of course the site,
21 the Eighteen Mile Creek site, was -- an awful
22 lot of work has been done on Eighteen Mile
23 Creek by the New York State Department of

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1 Environmental Conversation, and they turned to
2 us approximately two years ago and asked us if
3 we would not mind checking to see if we can
4 get the site listed on the National Priorities
5 List. Of course, we did that. We went
6 through the process, the Superfund process,
7 and it did qualify for the Superfund National
8 Priorities List.

9 It was actually placed on the priorities
10 list last March of 2012, and here we stand in
11 2013 with a proposed plan to do the first
12 phase of the clean up that we would like to
13 share with you this evening. A pretty arduous
14 task to be accomplished within a year. We
15 were able to do that because of an awful lot
16 of hard work that the State had performed
17 prior to us placing this site on the National
18 Priorities List. Next slide.

19 Of course community involvement involves a
20 variety of different activities. We held a
21 public meeting in June. Tonight we're doing a
22 public hearing with a stenographer as we
23 present our proposed plan to you. This past

1 week, I was with our communication relations
2 contractors, and I met many of you in the
3 community as we did community interviews
4 because we have a responsibility to create a
5 community involvement plan. Many of you have
6 received fact sheets as a result of you
7 signing into the last meeting. You received
8 the fact sheet alerting you we were holding
9 this meeting this evening and a variety of
10 different other alternatives.

11 We do have a live website that has the
12 proposed plan on it, and of course it's on the
13 handout in the back of the room. We are
14 developing a community involvement plan that
15 will go into the repository which is the
16 Lockport Public Library. That plan should be
17 completed probably within two to three months.
18 At this time, I would like to call upon Tom
19 Taccone, the project manager for the Eighteen
20 Mile Creek Superfund list. Tom.

21 MR. TACCONE: Thank you, Mike. So I am
22 the EPA Project Manager, Remedial Project
23 Manager for the Eighteen Mile Creek Superfund

1 Site. I am the person at EPA that's
2 responsible for the day-to-day operations and
3 activities and concerns regarding the site.
4 When I met with many of you in June, last
5 June, I talked about EPA's overall approach
6 for this site.

7 First of all, our intent is to build on
8 the studies that the DEC had already done.
9 Before we got the site, the DEC did quite a
10 bit of work on the site, collected a lot of
11 data, so we intend on using that information.
12 I also said that EPA plans on breaking the
13 site up into three separate actions, also
14 called operable units.

15 The first action or operable unit is the
16 subject of the proposed plan that we're going
17 to be describing today. That is to address
18 the contaminated properties on Water Street
19 and also the demolition of a building at the
20 former Flintkote Building on Mill Street. As
21 Mike said, the plan was released on July 26th
22 and is the subject of the meeting. The second
23 action that EPA plans for the site is to

1 investigate and remediate other properties in
2 the Corridor, and I will explain the Corridor
3 in a moment. And the third and final action
4 or the third action is to investigate and
5 remediate the creek north of Lockport to its
6 discharge to Lake Ontario.

7 This figure shows the Corridor. It
8 includes about 4,000 feet of the creek as it
9 winds its way through Lockport and includes
10 some properties associated with it: Upson
11 Park, the White Transportation property, the
12 former United Paperboard Company, the
13 residential properties which is the subject of
14 today's plan, and the Flintkote property. But
15 today's plan that I am describing today is
16 just going to involve a building on that
17 property which is located right around here on
18 Mill Street.

19 The Water Street properties are two
20 components of the plan as I mentioned, first
21 is the homes and the second is the building.
22 The properties are contaminated with elevated
23 levels of lead and other compounds called

1 polychlorinated biphenyls or PCBs. The
2 properties are also contaminated by the fill
3 and they experience periodic flooding, and the
4 creek is contaminated so the contaminated
5 sediment is deposited on the properties.

6 There are nine properties, six of them are
7 privately owned and the City owns three. They
8 occupy an area of about 2.3 acres. The fill
9 on the property is mostly ash and cinders. I
10 mentioned that the DEC and EPA have identified
11 elevated levels of lead and PCBs, and the
12 flooding problem that occurs on occasion
13 periodically during heavy precipitation events
14 is exacerbated by some culverts that the creek
15 flows through under William Street. They get
16 blocked, and it makes the flooding worse.

17 After a site gets listed on the National
18 Priorities List, the first thing EPA does is
19 study the site and that's done through a
20 process called the RI/FS. This is the
21 Remedial Investigation/Feasibility Study.
22 During the study, the study is performed to
23 determine the magnitude and extent of

1 contamination at a site, determine risks, and
2 to evaluate and present various alternative
3 options for addressing that contamination.

4 There are two parts. The first is the
5 remedial investigation. This is the field
6 work phase where the samples are collected to
7 characterize the site, determine the magnitude
8 and extent, to calculate and determine risk to
9 human health and the environment, and
10 sometimes treatability studies are performed
11 during the remedial investigation or the RI.
12 These are the special studies that are done to
13 determine if a particular technology or method
14 is effective at addressing the contamination
15 that was found. The other part of the study
16 is the feasibility study. This is the -- this
17 part of the study identifies, screens, and
18 evaluates various alternatives for addressing
19 the contamination using nine criteria which I
20 will explain later.

21 The New York State Department of
22 Environmental Conservation performed an RI/FS
23 of the Corridor including the residential

1 properties. The properties were sampled in
2 2002 in April and July of 2002. And that data
3 is summarized in this report called Sampling
4 Report, Water Street Properties, and that was
5 released in March 2003. In 2005, the
6 properties were sampled again, and that data
7 is presented and discussed in this report,
8 Remedial Investigation Report, which was
9 released in September 2006. And then the DEC
10 released a feasibility study of the creek
11 corridor including the properties in September
12 of 2009, and the report presented and
13 evaluated various alternatives for the
14 Corridor properties including the residential
15 properties. When EPA got the site, it
16 conducted its own samples too in March and
17 June of 2003 [sic] to further define the
18 extent of contamination.

19 This is not showing up so good, so you may
20 want to refer to your handouts. This is a
21 figure that shows the data, the results of the
22 data for the properties and this is for lead.
23 And if this showed a little better, you would

1 see that the exceedances are found in the
2 surface soil in the backyards closer to the
3 creek which is what you would expect if
4 flooding was the problem. This next slide is
5 again lead results, but for -- I hope
6 everybody is on the same page. It's the
7 figures. There were a couple of properties
8 that were found where contamination is found
9 in the subsurface which is the fill that I
10 think was sampled. This slide is for PCBs,
11 and this slide shows there were three
12 properties that showed elevated concentrations
13 of PCBs and again that was near the creek
14 bank.

15 Evaluating the data, we found that the
16 average concentration across the nine
17 properties was above 400 parts per million of
18 lead, and that's above EPA's acceptable
19 clean-up level. We also found that PCBs,
20 three of the properties contained levels of
21 above one part per million of PCBs. So the
22 contamination was found. We knew it was above
23 our clean-up level, so the next thing to do

1 would be to establish clean-up objectives.

2 These are called remedial action
3 objectives. These are goals for protecting
4 human health. So for the Water Street
5 properties, and this is in the proposed plan.
6 There are two remedial action objectives. The
7 first is to reduce or eliminate human exposure
8 -- thank you, much better. Human exposure by
9 soil ingestion and dermal contact with soil to
10 PCBs and metals specifically lead that are
11 above the clean-up criteria and to reduce or
12 eliminate the potential for the migration of
13 contaminants from the properties into the
14 creek.

15 Using those objectives, that assisted in
16 coming up with some alternatives for
17 addressing that contamination. EPA identified
18 five alternatives, and I am going to go into
19 each alternative in a little more detail. So
20 the first alternative we identified was a no
21 action. There are two alternatives that
22 involve capping, and capping is a way of
23 isolating the contamination from human contact

1 by putting a layer on the contaminated soil
2 like soil. One alternative is just the
3 capping. The second alternative includes
4 residence relocation. And then there are two
5 alternative that concern soil excavation.
6 This would be to remove all of the soil,
7 surface and subsurface that the lead is above
8 400 and the PCBs are above one, and we have
9 one alternative for just excavation and one
10 that uses residence relocation.

11 The first alternative is the no action.
12 EPA always use a no-action alternative. It
13 serves as a baseline so you compare one
14 alternative against doing nothing at all to
15 see what kind of difference you're making. Of
16 course the cost of doing that would be \$0.

17 The first alternative for capping involves
18 a cover, and this is a two foot cover of soil
19 over the soil that is above the 400 and the 1
20 and a six-inch layer of topsoil, and that
21 would be placed on the cap to promote growth
22 of vegetation such as grass and it would also
23 include some restrictions and controls on the

1 property to maintain the integrity of the cap,
2 and that cost is approximately \$1.4 million.

3 The second alternative is capping over the
4 area that is contaminated with the topsoil and
5 the controls, but it also involves acquisition
6 of the properties, relocating the residents
7 from the homes, demolishing the homes, and
8 putting security fencing around the area where
9 the homes are demolished.

10 The first excavation alternative would
11 involve digging up, excavating, and taking off
12 site approximately 5,800 cubic yards of soil
13 and fill that's above the 400 for lead and the
14 1 part per million of PCBs. The excavated
15 areas would be back filled with clean fill,
16 and the cost of that is about \$2.2 million.

17 And then the last alternative. This is
18 the fifth alternative. This involves
19 acquisition of the affected residential
20 properties, the relocation of the residents,
21 demolition of the homes, installation of a
22 security events -- excuse me, security
23 fencing, and excavation of the soil of roughly

1 5,800 cubic yards of the soil that's above 400
2 and the 1. That's a cost of about \$3 million.

3 These are the nine criteria that we use
4 for evaluating one alternative against the
5 other. There are nine of them. It's how well
6 each alternative compares against the other
7 alternatives with regard to overall protection
8 of human health and the environment,
9 compliance with environmental laws, how
10 effective the alternative that's being
11 evaluated with the others is in the long term,
12 how well the alternative reduces toxicity,
13 mobility, and volume of contamination, how
14 well it is effective in the short term, how
15 easy or difficult it is to implement from a
16 technical and administrative standpoints, how
17 costly the alternative are or is, whether or
18 not there is state acceptance, and whether or
19 not there is community acceptance.

20 Using those nine criteria and evaluating
21 each alternative one against the other, EPA
22 proposes the last alternative that I
23 mentioned. And that is to acquire the

1 properties, to relocate the residents,
2 demolish the homes, install security fencing,
3 remove the approximately 5,800 cubic yards of
4 soil. Now, because these properties are prone
5 to flooding and they're recontaminating, we
6 are proposing to do this implement, this
7 remedy, in a phased manner.

8 We're going to relocate the residents
9 first, demolish the homes, and put up the
10 security fencing but delay the excavation part
11 of the remedy until EPA's second action for
12 the site is implemented. The second action as
13 you recall concerns remediating the other
14 properties and the creek in the corridor. So
15 when the properties are excavated, it will be
16 done when the creek sediment is remediated and
17 recontamination can't occur anymore.

18 We selected this alternative because it
19 would permanently remove the soil so it would
20 be effective in the long term and in the
21 short-term because the people would be
22 relocated. Capping of course wouldn't be as
23 effective because the contamination would stay

1 there, and you would have to maintain the cap.
2 Relocation also addressed the uncertainty on
3 whether or not these homes can withstand the
4 remedy. A lot of the homes are old. And if
5 we perform the remedy, a lot of the homes are
6 assessed at a very high value. So the
7 excavation work might impair their integrity
8 and might cost more to shore up the homes and
9 protect them than just demolishing the home.

10 The other half of today's proposed plan
11 concerns the building. This is the building.
12 It's located at 300 Mill Street. It's on the
13 former Flintkote property. This property from
14 1928 to 1971 was used by the company to
15 manufacture felt and felt products, sound
16 deadening, and tufting felt for cars. The
17 property was sampled by the DEC and found to
18 be contaminated, but sampling under the
19 building itself was not possible. Many of you
20 know the condition of this building. It's
21 dangerous, and the sampling equipment just
22 couldn't get in there.

23 The EPA also sampled the inside of the

1 building and found asbestos in there. We
2 found PAHs which are residues that are left
3 from petroleum, oil, and gasoline and perhaps
4 tar. I think tar was manufactured there at
5 one time. Pesticides and lead in the building
6 in the sediment, in the basement of the
7 building, and lead was also found in some of
8 the concrete columns in the basement.

9 The building, we had to set remedial
10 action objectives to the building. So the
11 objectives then would be to prevent exposure
12 to contaminated building materials, to
13 eliminate hazards posed by the unstable
14 structure, the floors and the ceiling of the
15 building are unstable, and to remove any
16 impediments for sampling under the building.

17 We came up with two alternatives. One is
18 not to demolish the building, and the other is
19 to demolish the building. Of course the first
20 one would involve no cost, you're doing
21 nothing. The second one would be -- would
22 involve knocking the building down, sampling
23 the debris, sorting the debris out, and taking

1 the contaminated debris offsite for proper
2 disposal. And the debris that's not
3 contaminated would be crushed and used onsite
4 as fill material for the property. That cost
5 is about \$875,000.

6 These two alternatives were compared one
7 against each other you will see in the
8 proposed plan. And after evaluating that, EPA
9 is proposing, using the nine criteria, to
10 knock the building down because it eliminates
11 the potential for human exposure to the
12 building materials that contain the asbestos,
13 the residues and the metals, and it also
14 allows access under the building.

15 This table here just shows you all of the
16 alternatives, the soil alternatives. The
17 first through the last one, the five
18 alternatives. I highlighted the one we are
19 selecting in red. And then the two building
20 alternatives, the no action and the demolition
21 and that's highlighted in red.

22 The next step, the public comment period
23 on the plan ends August 26th. All comments on

1 the plan should be submitted to me. I will
2 give you my contact information in a second.
3 The next slide or two gives my contact
4 information. The comments that we receive on
5 the plan will be addressed in something called
6 a responsive summary where we address every
7 comment we receive. That's going to be
8 contained in a document called the Record of
9 Decision. That's EPA's final decision for
10 this action. The ROD or the Record of
11 Decision or the ROD will contain basic
12 information on the site like the proposed plan
13 does, site description. It will include a
14 discussion of community participation, past
15 and present activities at the site, and of
16 course it will present and describe the
17 selected remedy for both the properties and
18 the building. The ROD will also consider
19 future use.

20 Once the ROD is signed and approved, work
21 on the remedy can begin. A copy of the ROD
22 once it is done will be at the Lockport Public
23 Library, and EPA will repeat this process of

1 issuing a proposed plan and holding future
2 public meetings on the second and third
3 actions for the site. Now, we're going to be
4 signing the ROD, and there is going to be a
5 lag time between when the ROD is actually
6 signed and issued and the time when people are
7 going to be relocated and then further on down
8 the line the soil evacuated.

9 EPA is going to be instituting an interim
10 action, and that is going to involve a thin
11 layer I think a six-inch layer of clean top
12 soil on the property, the Water Street
13 properties to prevents even further human
14 contact. The action is also going to involve
15 some cleaning out, regular cleaning out of
16 culverts to prevent any flooding in the
17 future, some improvements will be made of the
18 driveway and the parking area. The cap is
19 also going to be seated, and the work on that
20 is already started. Perhaps later this month
21 or the month after that we will be putting the
22 soil down.

23 EPA has a website for the site, the

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1 Eighteen Mile Creek site. You can access it.
2 This web address is in the community relations
3 update. You can copy it down. Hopefully it
4 is in your handouts.

5 MR. BASILE: Yes, it is.

6 MR. TACCONE: Okay, it is in your
7 handouts. And you can add yourself to the
8 mailing list on the website, and this
9 presentation will be posted on the website in
10 the next week or two. When EPA issues or
11 comes up with a proposed plan, it creates a
12 record. It's called an administrative record,
13 and these are all of the reports and data that
14 EPA used for coming up with a plan and
15 decision and that is on -- the record is
16 placed in the repositories, and there are two:
17 one at the public library and one in EPA's
18 offices at 290 Broadway in New York.

19 That's my contact information. As I said,
20 all comments on the plan and in the future
21 come to me. That is Mike's address. Terry
22 Kish is here today. He is doing some work at
23 Water Street on the temporary action, and next

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1 is any questions you might be having. I will
2 leave my contact information up so you can get
3 that down if you need to.

4 MR. BASILE: Tom, thank you very much.
5 Thank you for an excellent presentation. As
6 Tom indicated, the proposed remedial action
7 plan, these slides you saw this evening, they
8 will be placed on our website within probably
9 the next week or two, okay. You do have
10 handouts which reflect this presentation as
11 well. The proposed plan that was in the back
12 of the room, a 40-page document, it is already
13 on the website and this is part of the EPA's
14 activities.

15 As Tom indicated, there was one person
16 that I didn't introduce from our team and it's
17 Terry Kish. Terry is very noticeable in the
18 neighborhood. Terry is with the removal
19 program, and many of the people on Water and
20 Mill Street have met Terry and of course Terry
21 is actively involved as an on-scene
22 coordinator for EPA Region 2.

23 Before we start the Qs and As, I would be

1 remiss if I really don't think. Sometimes I
2 forget to thank the people that made this
3 possible, and that is Victor Digiacomo and the
4 4-H folks here at Niagara County Fairgrounds
5 who permit us, EPA, to use these fantastic
6 facilities for the meeting and I want to thank
7 Victor. Victor has been floating back and
8 forth between his office which is the building
9 over doing some printing for us this evening
10 because of the problems we had with our
11 PowerPoint presentation.

12 At this time, I would like to call upon
13 you, the public, to come forward. And I am
14 going to ask, again, that you just spell your
15 last name, state your full name, speak loudly,
16 and again we're in this public comment period.
17 And everything that we do in the government,
18 we have a process. The public comments can be
19 sent to Tom Taccone at that address through
20 midnight August the 26th. Please avail
21 yourself of that opportunity.

22 I notice that a few of you this evening
23 have prepared comments. And after you make

1 your prepared comments, you can leave a copy
2 of your comments with the court stenographer
3 as well before you leave. If many of you
4 listen to questions that are raised tonight
5 and leave this room and in a day or two find
6 yourselves with questions or now you would
7 like to comment on the plan, just feel free to
8 pick up a handout in the back. Tom's mailing
9 address is there, and you can still get
10 comments to him by August the 26th. Okay.
11 We're going to open it up for questions.

12 MR. PILLOT: I have some pictures here
13 if you would like them. They're going to go
14 along with this which I will give to the
15 stenographer.

16 MR. TACCONE: You would like to submit
17 them as part of your comment.

18 MR. PILLOT: Okay. Submit them all at
19 the end?

20 MR. BASILE: Yes, please.

21 MR. PILLOT: First of all, before I even
22 start, I just want to say these comments are
23 my own public views. It's what I have seen

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1 growing up. It's not what I have been told.
2 It's not what I have heard. It's everything I
3 have seen. Okay. My name -- first, I got to
4 say something. I would like to thank the EPA
5 and everyone involved in holding this public
6 information meeting. I would also like to
7 thank Senator Schumer for his help regarding
8 Lowertown residents at Eighteen Mile Creek.

9 My name is Michael J. Pillot, P-I-L-L-O-T.
10 I am a life long resident of Lockport and grew
11 up on Market Street next to the Erie Barge
12 Canal. I lived there until the early 1970s
13 when urban renewal and our local politicians
14 decided to ruin our city. I attended DeWitt
15 Clinton School on Clinton Street, two blocks
16 from the creek. I often went to the paper
17 mill to get cardboard for school projects.

18 As a youth, it was not unusual to see dead
19 fish along the creek or canal. I have seen
20 thousands over my lifetime. It was not
21 unusual to see a cloudy haze over Lowertown at
22 night from all of the factory emissions. It
23 was not unusual to see dead or sick animals.

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1 I personally lost pets to cancer and tumors.
2 I watched my grandmother suffer and die from
3 cancer. I recently watched my sister die a
4 horrible death from cancer.

5 When my father worked at the paper mill on
6 Mill Street, I would go there a couple times a
7 week to get books. On several occasions, I
8 would see a fork truck with four 55-gallon
9 drums of liquid and dump them into the creek.
10 Those are pictures 1, 2, and 3 of the dock I
11 seen them dumping the barrels off of. I've
12 personally seen the discharge pipe on Market
13 Street near the Exchange Street Bridge, the
14 discharge pipe off Mill Street near VanDeMark
15 Chemical, and the discharge pipe on Market
16 Street near Vine Street. Who knows what's
17 coming out of them?

18 I spoke at the June 5th meeting because I
19 am and always will be a Lowertown boy. It was
20 because of two city residents, Mrs. Jean Kiene
21 and Shirley Nicholas, who brought it to the
22 attention of ex-congresswoman Kathy Hochul.
23 It was made public when Donna Pieszala invited

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1 Congresswoman Hochul to appear on her show at
2 our local radio station.

3 On June 5th, I made two statements. First
4 I did not think that bringing in dirt was
5 going to help and was nothing but a waste of
6 money. I thought the residents should be
7 relocated. I am pleased that Senator Schumer
8 agreed they should be relocated. I am not
9 happy about what they're offering the
10 residents. I think \$250,000 is not only an
11 insult, it's a slap in the face. They were
12 willing to spend \$1.2 million on fill and
13 \$250,000 on buying five residents. That's
14 50,000 per household.

15 I believe the residents should be given a
16 house compatible to what they live in. I am
17 not saying give them all mansions, but
18 something comparable to what they have. These
19 people are not rich. They are hard working
20 people just trying to survive. They can not
21 afford the expense to move, and that's why
22 they're still living there. The second
23 statement I made was I thought that Eighteen

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1 Mile Creek was worse than Love Canal, and I
2 still believe that.

3 This is not a new problem that just arose.
4 It's been ongoing for years. Our local
5 politicians have done nothing to help the
6 residents of Lockport. Most residents do not
7 even know who represents them, and, if they do
8 know, they have never met them. I didn't even
9 know who my legislator was until a year and a
10 half ago. You only see them during elections
11 when they make shallow promises. In 2011,
12 when, with the help of Congresswoman Hochul,
13 the dangerous water tower at the old Flintkote
14 was torn down, our local politicians took all
15 of the credit. Of course, it was election
16 year. One of the city's most controversial
17 elections ever.

18 What have they done since then? Put a
19 tarp and a fence around the dumpster filled
20 with asbestos on Mill Street. Those are
21 pictures 4 and 5. Put the owner of a dry
22 cleaning store in jail for not tearing down a
23 collapsed building. That's picture 6. When I

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1 asked about if the dry cleaners were toxic, I
2 was asked if it was political. I asked
3 because my kids grew up playing in the park a
4 block from the site.

5 Over the past five years, our local
6 politicians have spent well over \$500,000,
7 yes, over a half a million dollars on free
8 concerts but yet the contaminated dumpster and
9 the dry cleaners are still there. It was like
10 putting a band aid on a broken arm. They want
11 to spend millions on the locks because they
12 think it will bring in tourists and solve all
13 of Lockport's financial problems. Take care
14 of the residents first and then worry about
15 the tourists. Most of the people who are sick
16 or dying from cancer really don't want to go
17 hear a free concert or visit the locks.

18 I plead with all of you to help the
19 residents of Lowertown and all of the Lockport
20 residents because I don't believe our elected
21 officials care about anything but being
22 reelected so they can keep their friends and
23 relatives employed. I pray that after the

1 election we are not forgotten about like we
2 have been in past years. It's time the
3 people's health comes before politics or
4 money. I would just like to say thank you for
5 giving me this opportunity to address my
6 thoughts and concerns.

7 MR. TACCONE: Very good. Thank you for
8 your comment.

9 MR. BASILE: Thank you, thank you. Can
10 I just make one statement? We do solicit your
11 comments, but we ask that you keep your
12 comments to the reason why we're here. And
13 that's because we presented to you the
14 proposed plan for this first phase, the
15 operable unit that Mr. Taccone spoke about.
16 So I ask again let's stay on the subject.
17 We're looking for your comments about the plan
18 that we presented to you, the public.
19 Shirley, before you speak, there is one other
20 thing.

21 Following the June 5th meeting, I think
22 you remember, we had a slide and we talked
23 about community relations activities at the

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1 agency, and we provide technical advisors for
2 communities like yourselves that need
3 assistance in interpreting data or a plan from
4 time to time. We're just beginning the
5 process here on Eighteen Mile Creek. Shirley
6 Nicholas who has been very active in your
7 community contacted my office on June the 6th
8 and asked for technical advisors, and we were
9 very happy to announce that EPA is funding a
10 technical advisor through a contractor called
11 Skeo Solutions. They have already started to
12 dialogue with Shirley Nicholas, and in the
13 future with many of the residents that are in
14 this room as well as Shirley and Victor
15 Digiacomo here will be meeting here tonight.

16 Skeo Solutions has a technical
17 environmental associate that's here. His name
18 is Hagai Nassau. Will you please stand so I
19 can recognize you? He is right here. If
20 anyone has questions about our activities,
21 this technical advisor is being provided to
22 the community and will be available through
23 Shirley Nicholas and Victor Digiacomo in the

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1 future. Thank you. Okay, Shirley.

2 MRS. NICHOLAS: I would like to speak on
3 things only a little bit different than Mike.
4 Can I do that?

5 MR. BASILE: Well, why don't you make
6 your comments about the plan?

7 MRS. NICHOLAS: Well, it's about how we
8 got to this point.

9 MR. BASILE: Will it take you a while, a
10 long time?

11 MRS. NICHOLAS: Yeah, it will.

12 MR. BASILE: Can you wait until maybe we
13 hear other people's comments during the
14 meeting?

15 MRS. NICHOLAS: Everybody wants me to do
16 it now.

17 MR. BASILE: All right, do it now.
18 Let's do it. Shirley, remember some of us
19 work for a living. Take your time, Shirley.

20 MRS. NICHOLAS: You know, guys, I am not
21 afraid of the devil himself. I just want
22 everybody to know that. I want to do some
23 thankings because, you know, there's really

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1 been some people that were really
2 instrumental, and I have to acknowledge them.
3 I want to also acknowledge them because they
4 put up with my temper. The last few days,
5 it's been hot. I am not going to make any
6 excuses for it. I want to thank Victor. He
7 has been a Godsend to me.

8 MR. BASILE: Victor is in the back of
9 the room. He is right there in the plaid blue
10 shirt.

11 MRS. NICHOLAS: He is a great guy,
12 believe me. And Terry. You know, I adore
13 Terry. He has been an awful helpful to me
14 too. There has been one other thing that he
15 and I will talk about some days, but that's
16 not here nor there. He is really good at what
17 he does. Tom, you don't read your e-mail.
18 You haven't read it, don't read it now. Mike,
19 I am sorry you read yours.

20 MR. BASILE: I read mine, Shirley, and I
21 love you anyway. Thank you.

22 MRS. NICHOLAS: I was hot because I got
23 a call last night about 7 o'clock at night

1 from a guy who was working who was really
2 upset, and I was too upset. I couldn't find
3 anybody until 8 o'clock this morning. I was
4 there with Terry. I had left everybody
5 notices just in case they didn't hear about
6 it. I wanted to make sure they did. Then I
7 want to also thank all my friends who have
8 been supportive of me. They all know who you
9 are, and especially from the Buffalo newspaper
10 TJ Pignataro and Tom Prevaskis [phonetic].
11 And then also from Channel 4, and I am not
12 going to pronounce your last name because I
13 won't do it right. You know who you are and
14 my really, my best friend, Jordan Williams.
15 He has been so helpful to me. He is just a
16 Godsend.

17 Now, this all started in June '08 when 99
18 of us received a letter stating we were living
19 next to a Class 2 hazardous waste site. It
20 was from the New York State Department of
21 Environmental Conservation. This statement
22 stated that we were in a Class 2 hazardous
23 waste site, and it was deemed that we have to

1 tell people that we're leasing to and that are
2 buying our property about it. Unfortunately,
3 the city does not have to. It was determined
4 that the sediments in the corridor are heavily
5 contaminated with PCBs, arsenic, chromium,
6 copper, lead, and zinc and a whole bunch of
7 other stuff.

8 A fish advisory was released. Eat none
9 for all species for Eighteen Mile Creek due to
10 this contamination. I don't think people were
11 informed of this at all. And then the people
12 right along Water Street has been exposed to
13 contamination in the soil from the creek. It
14 presents a significant threat to human health
15 and the environment due to the potential for
16 direct human contact with site contaminates in
17 the surface of sediment. Therefore, listing
18 this as a Class 2 hazardous waste site.

19 When I called Mr. Glen May at the time, I
20 asked him I wanted a definition that the local
21 people could understand what was the
22 classification of Class 2 and he said to me,
23 Shirley, did you ever hear of Love Canal?

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1 Well, I said this is Niagara County. We all
2 have. He says, well, it's the same thing only
3 it's not seeping up into your yards. Well,
4 the people on Water Street were having it in
5 their cellars so it's just as bad as Love
6 Canal.

7 I ran for election, and I met Jean Kiene
8 who helped me. My taxes were going to be went
9 from 35,000 to 59,000, and I was furious
10 because we were living in a Class 2 hazardous
11 waste site. I didn't think so. So you know
12 what, they thought they could shut me up.
13 They lowered my taxes to \$8,000, but they
14 didn't shut me up.

15 Jean knows and Margie, and Ann, and one of
16 my other best friends Donna Pieszala. We all
17 came to the radio station, and Donna Pieszala
18 got Kathy Hochul to come here and speak and
19 Jean Kiene called me up. She said, Shirley,
20 get your information, you're going to take it
21 to see Kathy. I said, why, I am republican.
22 She is democrat. She won't talk to me. She
23 said, get your stuff. When Jean speaks, you

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1 do what she says. I love her. She was right.
2 We went there, and guess what she not only
3 took my information, but she sat down and
4 talked to us.

5 A little while later, we were down where
6 they were going to have a photo-op on the
7 cleanup. While we were there, we were there
8 early Jean and I. And we stood there by the
9 podium, and Mr. Peck came up and he said to us
10 get away from there. You can't stand there.
11 And Jean says, where do you want us to step?
12 He is says, you know what, go stand on the
13 railroad tracks. Nice guy.

14 So, anyway, Kathy sent a representative
15 Carl Jones there to hear us. And afterwards,
16 we told her what happened and she didn't like
17 it either. And we asked her to go down and
18 see Water Street which she did. And from that
19 point on, that's when things began to happen.
20 Kathy Hochul ran with us, and she got it on
21 the Superfund. It was hers, not Niagara
22 County. You know like right now, this is
23 pretty well set in stone, guys. We like your

1 ideas, we all do. But, actually, not much can
2 be changed.

3 They didn't send in their notice till
4 November 15th about that time when it was
5 going to be closed anyway. But they sent it
6 in, it didn't matter anyway. They treated me,
7 a lot of people here know, when I spoke before
8 Niagara County, they treated me terrible.
9 They didn't want to hear about anything. They
10 didn't have any money. Well they got money
11 for everything else, just like our mayor. He
12 doesn't have any money either, but he has
13 money for concerts and all of that stuff and
14 dishing it out to people tax free. I would
15 like some tax free.

16 MR. BASILE: Shirley, are you near?

17 MRS. NICHOLAS: I am almost done.

18 MR. BASILE: Almost, okay.

19 MRS. NICHOLAS: So, you know, when we
20 got this letter from Mr. Updegrove stating
21 that they had a big deal to do about it, they
22 had nothing to do about it, nothing. And now,
23 guys, if you want to get some real good

1 information, call me and I will tell you where
2 to get it or just come on out and support us.
3 We need your help. We can't let this go, and
4 let's just do it. We have to show them we can
5 do it. No matter what our politicians say
6 we're going to do it. Thank you guys. Have a
7 good night.

8 MR. BASILE: Thank you for your comment,
9 Shirley. Any other questions? Yes, sir.

10 MR. BRUNING: Russ Bruning,
11 B-R-U-N-I-N-G. I happen to know the creek
12 quite extensively, and I know that there is
13 another branch that nobody has talked about
14 tonight. And there is a house on that
15 property at the bottom of Niagara Street hill
16 that's got contaminated soil on it from
17 General Motors. I talked to Mr. May up in
18 Buffalo for 45 minutes before this all started
19 last year, and he told me that that was also
20 going to be on this Superfund. And nobody has
21 mentioned it tonight, and I am wondering why.
22 Anybody got an answer?

23 MR. TACCONE: What creek is this?

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1 MR. BRUNING: It's Eighteen Mile Creek.
2 It comes down across the street from General
3 Motors through the sewer treatment.

4 AUDIENCE MEMBER: We call that Indian
5 Hill Road.

6 MR. BRUNING: Gulf Wilderness Park
7 creek. It goes all the way up to across the
8 street from General Motors. There is a sewer
9 treatment plan there that is no longer in
10 operation and trichloroethylene used to dump
11 into there by the hundreds of gallons. By
12 accident possibly, but it did in fact go in
13 there because I had it coming up underneath my
14 well chair. And at the time they checked the
15 levels, there was enough trichloroethylene in
16 that hole under my chair to kill the whole
17 City of Lockport I was told. That includes
18 men, women, children, dogs, cats, birds, and
19 bugs.

20 MR. BASILE: Well, we solicit, and we're
21 happy that you're providing us with that
22 information. We are here to talk about
23 this --

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1 MR. BRUNING: I was told this
2 information is already on your desk, and it's
3 already been looked at and it's already been
4 included in the Superfund. And I was told
5 that by Mr. May in Buffalo. He talked to me
6 for 45 minutes last year in the summertime.

7 MR. BASILE: Well, you have to
8 appreciate the fact the State referred the
9 site to us. We didn't get the site listed on
10 the National Priorities List until March of
11 last year.

12 MR. BRUNING: That is part of Eighteen
13 Mile Creek, and it enters into where the sewer
14 plant is at the bottom of West Jackson Street.

15 MR. MANNINO: I don't know. I don't
16 have all of the details on the site. My
17 understanding is that particular site is being
18 handled by the New York State DEC under their
19 Superfund program. We will follow up to
20 insure that the information --

21 MR. BRUNING: So it's the same creek,
22 just two different Superfunds?

23 MR. MANNINO: It's two different sites.

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1 MR. BRUNING: Well, it all empties into
2 the same piece of water.

3 MR. MANNINO: That is correct. What we
4 will do is we're going to coordinate closely
5 with the state and other agencies that might
6 be working on other properties or other
7 sources of contamination and insure that we
8 are closely coordinating with each other so
9 that when one takes an action, it complements
10 the work that someone else is doing. When
11 we're back in the office, we will follow up on
12 that facility and we can try to provide you
13 more information on how to get more
14 information regarding that particular
15 facility.

16 MR. BRUNING: I don't need more
17 information. I need it cleaned up.

18 MR. MANNINO: Okay. My understanding is
19 and I have to just ask a few more questions on
20 this, that that site is in the remedial design
21 phase which is the phase right before the
22 remedial action which is when the clean up is
23 done. Once again, I am just hearing about

1 this now, and I would like to learn a little
2 bit more about it.

3 MR. BRUNING: Do you work in the same
4 office as him?

5 MR. MANNINO: With DEC? No, that's the
6 New York State Department of Environmental
7 Conservation.

8 MR. BRUNING: Okay, that makes sense.

9 MR. MANNINO: We are with the EPA.

10 MR. BRUNING: Just so you folks are
11 aware of this, I know all of the stuff that is
12 going on down at the bottom of Mill Street and
13 Water Street. I went past there tonight on
14 the way over here. I live at the top of the
15 hill, not on the bottom. But the area at the
16 bottom of Niagara Street hill, there is a home
17 there, one house at the bottom of the hill,
18 and the creek comes right behind their house
19 to go underneath Niagara Street. That was so
20 flooded last year that the trees, I am 6 foot
21 3, and probably this high out of the creek
22 [indicating] was completely flooded right into
23 their backyard and the mud is still there even

1 with all of the rain we had this year. It's a
2 bad area.

3 When I was -- probably 15 years ago, I
4 stuck a pole in that creek in Gulf Wilderness
5 Park, and it looked like tar on that pole,
6 black gunk tar and that's got to be full of
7 lead, solder, lead solder, trichloroethylene
8 because they were dumping it in the sewers
9 obviously. The sewer treatment plant is no
10 longer working over there. I don't know how
11 it's getting into the creek now. I know that
12 that creek dumps right into where you're going
13 to be going through. I hate to see you guys
14 go through all of that cleaning up and just
15 having it get contaminated all over again.
16 That don't make any sense at all to me.

17 MR. MANNINO: You're absolutely right.
18 That's why Tom was talking about the need to
19 sequence the work. The reason we're taking
20 the action on the first operable unit, the
21 residential properties and the former
22 Flintkote --

23 MR. BRUNING: Well, you have another

1 resident over there.

2 MR. MANNINO: When you read the proposed
3 plan, it talks about the properties on Water
4 Street and the potential for other properties
5 in the area that might --

6 MR. BRUNING: I absolutely understand.

7 MR. MANNINO: Okay. So we will, when
8 we're back in the office, take a deeper look
9 at the property that you're looking at and, if
10 it's appropriate to incorporate it into this
11 action, we will do that evaluation.

12 MR. BRUNING: Well, Building 8 I was
13 told by Mr. May that that site is already on
14 record as being a dump site, a spill site,
15 contaminated site, and they're going to clean
16 it up at some point.

17 MR. MANNINO: Okay.

18 MR. BRUNING: The water across the road
19 is where I am mostly concerned because that
20 water is going right through Gulf Wilderness
21 Park, and I like animals and birds and fish
22 and butterflies, insects of all kinds, and I
23 can't see this just going on anymore. There

1 is a ton of stuff down there.

2 MR. TACCONE: What park?

3 MR. BRUNING: Gulf Wilderness Park below
4 Niagara Street hill. It edges out right where
5 VanDeMark and that other chemical company are
6 down at the bottom where the sewer treatment
7 -- right where the sewer treatment plant is at
8 the bottom of the hill.

9 MR. MANNINO: If you could keep in mind
10 that we're here to talk about the Eighteen
11 Mile Creek site, and we appreciate your input.

12 MR. BRUNING: That's part of Eighteen
13 Mile Creek.

14 MR. MANNINO: You have to keep in mind
15 that there are other programs and other
16 agencies that handle other sites that might be
17 impacting the community, and Tom's authority
18 is limited to spend Federal money on only
19 those sources to the Eighteen Mile Creek site
20 that are not covered under another program. I
21 am not sure if you were at the last meeting
22 that we had in June.

23 MR. BRUNING: I have been at all the

1 meetings.

2 MR. MANNINO: You may recall in our last
3 meeting we talked about how there are other
4 programs for example the RCRA program,
5 Resource Conservation and Recovery Act program
6 that addresses facilities that are currently
7 in operation or that have closure plans in
8 place to address contamination. Not all
9 facilities are handled under the Superfund
10 program. We need to --

11 MR. BRUNING: I don't know why the
12 gentleman in your office told me that that was
13 going to be included in this a year ago.

14 MR. MANNINO: Okay. I don't know of
15 anyone in our office that you have spoken to
16 that would have said that, but we can talk
17 more about that. I understand your concern.

18 MR. BRUNING: That's what he told me.

19 MR. TACCONE: You're speaking of Glen
20 May?

21 MR. BRUNING: Glen May. I talked to him
22 for 45 minutes, and he assured me that was
23 included.

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1 MR. MANNINO: Once again, Glen works for
2 New York State Department of Environmental
3 Conservation. EPA is the lead on the Eighteen
4 Mile Creek Superfund site, and the New York
5 State DEC is our sister agency.

6 MR. BRUNING: So this is from Lockport
7 to Lake Ontario?

8 MR. MANNINO: Yes.

9 MR. BRUNING: Well, that's a branch that
10 comes down and meets it.

11 MR. MANNINO: I understand, sir.

12 MR. BRUNING: That's all I am saying.

13 MR. MANNINO: What I am trying to say
14 and maybe I am not communicating it
15 effectively enough and we can talk later about
16 it. There are other programs. The State
17 Superfund program it's my understanding is
18 handling that site. They have the authority
19 to handle that site. They are working on that
20 site and trying to make progress on getting to
21 a cleanup. When they do that cleanup, when
22 they coordinate to ensure the work is done in
23 sequence in a way that the timing is done so

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1 that Tom's work doesn't get recontaminated.

2 That's why we talked about sequencing and
3 phasing work when it comes to the operable
4 units here, and we realize there is other work
5 that needs to get done first and those sources
6 have to be controlled. Maybe the answer is
7 that we talk over the next couple of days and
8 provide you with more specific information
9 regarding the status of the cleanup of that
10 particular facility and who at the State is
11 handling that under the State Superfund
12 program.

13 MR. BRUNING: Okay.

14 MR. BASILE: Yes, ma'am?

15 MS. KIENE: My name is Jean Kiene,
16 K-I-E-N-E. Although I did not intend to talk
17 about the old Upper Mountain Road site, since
18 he brought it up, I choose to do so. And,
19 Tom, as you know, I have prepared eight pages
20 mainly of questions which I have submitted to
21 you, but I will submit this tonight to you
22 also. Now, with regards to the old Upper
23 Mountain Road site, the property owners of

1 Otto Park Place were not officially notified
2 of the fact that Otto Park Place has been
3 deemed a Toxic Two site. Toxic Two site as
4 far as I am concerned is the same as Love
5 Canal.

6 A public meeting conducted by the NYS DEC
7 was held at City Hall. A resident questioned
8 why no notification or reply to the
9 information was available. They stated it was
10 available on the computer, and the resident
11 does not own a computer, and why would she be
12 looking for her street to be on a toxic
13 website? She requested that her property be
14 tested. The reply was negative from the NYS
15 DEC. She stated she would seek a private
16 company to test. The reply from NYS DEC was
17 the test would not be valid as she lives near
18 a four-lane highway.

19 This is what this gentleman is referring
20 to. Gulf Creek flows along the bottom of the
21 ravine and discharges into Eighteen Mile
22 Creek. I am requesting the Federal DEC advise
23 the residents of the toxic issues and that

1 contamination testing be provided for all Otto
2 Park properties. This site relates to the
3 Eighteen Mile Creek issue. Please refer to
4 pages 53 and 54 of the Eighteen Mile Creek
5 Remedial Action Plan dated December 2011. So
6 I do believe that ties in with what
7 Mr. Bruning was saying.

8 What I wanted to address tonight was
9 Lowertown. I am requesting the release of all
10 of the information, dates, types of testing,
11 and location of such that lead to the decision
12 for the NYS DEC to issue a letter dated May
13 28th, 2008 advising close to 100 property
14 owners that they reside in a Code 2 area,
15 defined as a significant threat to their
16 health or environment. Affected streets:
17 Water, Chapel, Mill, Jackson, West Jackson, 59
18 Olcott Street, William, Porter, Center, Frost,
19 Van Buren, and Clinton. Although I couldn't
20 find any correspondence with regards to
21 Harwood, I believe that's of concern. I wish
22 to know why only 59 Olcott was on that list.

23 I certainly feel that it's in the best

1 interest of all of those people that live at
2 those addresses that they be provided with
3 soil testing from the Federal government and
4 possibly a health follow-up. And with regards
5 to the people on Water Street, really nothing
6 has been said with regards to their physical
7 health. And I really think that it's an order
8 that they all be examined thoroughly by their
9 physicians and a follow-up be continued for a
10 number of years by your concerns.

11 And, Tom, I thank you. I thank you very
12 much for the time and the efforts that you
13 have spent and the people you have brought to
14 our community. And as Shirley said, you know,
15 for the last two years we have really fought
16 night and day for these people to obtain some
17 help. The local politicians were of no avail,
18 no avail whatsoever. So I wish to go on
19 record, and I know many will not be happy to
20 hear that, but it is the truth. And it's only
21 because of Tom that I think tonight has been
22 arranged, and I thank you.

23 MS. HOLLAND: Liz Holland, so, Tom,

1 that's the letter that you called me on --

2 MR. TACCONE: The May 28th, 2008?

3 MS. HOLLAND: Yes, that's letter.

4 MR. TACCONE: This was from the DEC.

5 MS. HOLLAND: Shirley, it was sent in
6 June of 2008?

7 MRS. NICHOLAS: Yes, June of 2008.

8 MS. HOLLAND: In June of 2008, the
9 former owner of my house sent it, and I bought
10 my house in October. They didn't disclose
11 this, and now I am stuck with it. Anyhow, I
12 am the unlucky only resident of Water Street
13 that you're not buying. So my comments, and I
14 don't need an answer right now. I just want
15 to go on public record of this. I want to
16 know what the timeline is for the demolition
17 and remediation of those properties down
18 there. Because once you remove people, you're
19 not going to be in any hurry to get anything
20 else done. I am stuck there. There is going
21 to be vandalism, arson, drug use, the whole
22 neighborhood is going to go to hell, and I am
23 stuck there.

1 The soil sample map you put up earlier,
2 you mentioned that Jackson and Mill Street
3 were tested. And I want to know what
4 locations and why and why were they tested,
5 and why was I not tested. And this is the
6 third time publicly now that I am requesting a
7 soil test for my property. I started
8 installing a fence. And guess what I dug up?
9 All ash. There is not even any soil I am
10 digging up. It's all ash in front of my
11 house.

12 MR. JACKSON: It's the same thing I
13 found in my back yard.

14 MS. HOLLAND: The three city owned
15 properties down there, the vacant lots, you
16 guys are saying that you don't want them. I
17 just read in the Buffalo News, Mayor Tucker is
18 saying he is handing them over. So whose are
19 they? If they are yours, what happens then?
20 Because clearly the City wants nothing to do
21 with this, and I am in agreement with everyone
22 else here that they have done absolutely
23 nothing. I also want to know if the site is

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1 ever available for development again or if I
2 am forever going to be destined to own a house
3 I can't sell next to a hazardous waste dump
4 sign. That's it.

5 MR. BASILE: Thank you.

6 MR. SCHRADER: I know that nobody is
7 going to like me. Pat Schrader, City of
8 Lockport, S-C-H-R-A-D-E-R. I have a short
9 letter from the mayor because the mayor is out
10 of town. It's addressed to Tom. It says "I
11 am unable to make the public meeting on August
12 13th. I am sending Common Council President
13 Anne McCaffrey," who is also out of town so
14 now you get Pat Schrader, fourth member. "I
15 would like the City of Lockport on record of
16 supporting the proposed plan for buying out
17 the families on Water Street and moving them
18 to a different location, but we will only
19 support this if the residents on Water Street
20 support it themselves and are fairly
21 compensated. We have always thought that this
22 is the most viable solution for the benefit of
23 all. If there is anything we can do as a

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1 City, please contact us."

2 I would like to make a couple of personal
3 comments about the Water Street site. I lived
4 at the corner of Monroe and Scovell Street,
5 which is about a five-minute walk down to
6 Water Street, for 17 years. I am a cancer
7 survivor, no brags, no facts. I am just
8 stating things. And for everybody here in
9 this audience, I am inviting you all down to
10 the water treatment plan, that everybody
11 accuses of being broke and not working, for a
12 tour at any time. Just call the office, and
13 we will invite you down and tell you all about
14 it because it works perfect. We're up-to-date
15 with all of the state mandates and state
16 speedy permits. Thank you. That's it.

17 MR. BASILE: Thank you. Thank you very
18 much for your comments. Liz Holland, we do
19 have Pete Mannino that would like to make a
20 comment about some of your concerns.

21 MR. MANNINO: One of the reasons that we
22 call for the demolition of the homes and the
23 sequence of the work is to address the

1 concerns that you brought up regarding
2 potential for vandalism and trespassing
3 activity. That's why as soon as the residents
4 are relocated, we plan to demolish the homes
5 immediately after that occurs. We then plan
6 to put security fencing up to restrict access
7 to make sure there is no trespasser activity
8 or create a passageway for kids to gain access
9 to the creek area where there is the high
10 levels of contamination. We have thought
11 about the concerns that you have, and we have
12 incorporated what we think are measures to
13 mitigate the concerns that you have raised.
14 We can talk a little bit more down the road
15 regarding schedule and timing to do that work,
16 okay, because we have to go through a design
17 phase once the ROD is approved and then do the
18 actual buy out and relocations.

19 But to address one of your other points
20 regarding the future use of the property, the
21 remediation goals that Tom highlighted before
22 for PCBs at one part per million and lead 400
23 PPM, that allows for residential use on the

1 property. So the idea is, the intent is, that
2 once EPA completes the work, those properties,
3 that area can be put back to beneficial reuse.
4 It is not going to remain a hazardous waste
5 site, okay.

6 I think your third major point that you
7 raised was sampling on your property. You're
8 right. We came to your property on June 6th.
9 It was a very rainy day. We walked around a
10 little bit, and we talked about that we need
11 to develop a plan and evaluate whether or not
12 sampling would be done on your property.

13 MR. TACCONE: And we need to get back to
14 you on that.

15 MR. MANNINO: Yes. We need to get back
16 to you and we are trying to creat a
17 comprehensive plan for the area to determine
18 what additional sampling needs to be done.
19 The reason we sampled on Mill Street and on
20 Water Street the backyards of Jackson, was to
21 do basically a broad survey to determine if
22 the problem was larger than originally thought
23 based on the 2003 and subsequent sampling.

1 What that data revealed was that for the
2 properties that butt up against Water Street,
3 the Jackson properties, they have not been
4 impacted by site related contamination. On
5 Mill Street, there are some properties that
6 have some lead at elevated concentrations, and
7 so we realize that we need to do additional
8 sampling and we want to develop a
9 comprehensive plan that addresses everyone's
10 concerns in the immediate area instead of just
11 going around and sampling one property at a
12 time, and that's what we need to get back to
13 you on and we realize that.

14 MS. HOLLAND: Okay, I have two more
15 comments.

16 MR. MANNINO: Sure.

17 MS. HOLLAND: What I was asking for is
18 public release of the addresses that you
19 tested and the results because I want to see
20 how close they are to me.

21 MR. JACKSON: There are a lot of people
22 down here that we live on Jackson. We would
23 like that info too.

1 MR. MANNINO: Sure. All of the data
2 that EPA has collected and DEC collected is in
3 the reports that are in the administrative
4 record. You could go down tomorrow to the
5 library, and there are figures that show the
6 sampling locations for all of the data that's
7 been collected and the result.

8 One of the things that we have tried to do
9 because we are dealing with residential
10 properties is respect the privacy of the
11 individual homeowners. Where we can, we have
12 redacted information so that an individual
13 doesn't get a knock on the door from whoever
14 it may be and say do you realize that you have
15 x levels of contamination on your property,
16 and I am going to go to so and so individual
17 and report that information.

18 So we're trying to respect the privacy of
19 each of the individual homeowners at the same
20 time as disclosing the information to the
21 general public. We have a balancing act that
22 we're trying to do. So when you go to the
23 repository and look for the information, that

1 is why you will see that sometimes some of the
2 information has been redacted. It's to
3 maintain the privacy of some of those
4 homeowners. If you believe you're a homeowner
5 where that property was sampled, I believe we
6 sent each of those homeowners letters once we
7 had the validated data giving each of the
8 homeowners the result for their property by
9 property sampling.

10 MR. JACKSON: I definitely wasn't
11 tested. I do have ash like she is describing.

12 MR. MANNINO: Okay. That is why over a
13 period of time we need to do a comprehensive
14 survey of the area and figure out what
15 properties we need to do additional sampling
16 on. We have to evaluate that and figure out
17 the best way of approaching a sampling program
18 to do that. It doesn't make sense to go out
19 and sample one property and not sample the
20 property next door. That's what we need to
21 figure out the best way of doing it.

22 MR. JACKSON: Well, you have our
23 properties listed and they were impacted by

1 assessments and everything else through the
2 city. They lowered our property values, and
3 we're listed as being impacted by this but
4 nothing has happened up there. Nothing.
5 We're not being included in any of this stuff
6 that's happening on Water Street and stuff.

7 MR. MANNINO: I really -- I am not sure
8 what you mean by the assessments. We have no
9 control --

10 MR. JACKSON: Well, you don't have
11 control over the assessments but it has
12 lowered our property values because we're
13 considered what is a Superfund site, Class 2
14 Superfund site.

15 AUDIENCE MEMBER: Class 2 Hazardous
16 Waste.

17 MR. JACKSON: Our property like us over
18 here, our properties are considered part of
19 that and you're saying there has been sampling
20 down on Jackson Street. I have six kids. I
21 want to know.

22 MR. MANNINO: Right. What I just said
23 was the properties on Jackson Street have not

1 been impacted by the site based on the data
2 that we have and --

3 MR. JACKSON: But it's been impacted
4 enough to include us into the Superfund
5 category.

6 AUDIENCE MEMBER: We have to disclose --

7 MR. TACCONE: As a city determination.
8 That's not ours.

9 MR. JACKSON: The disclosure part is the
10 city?

11 MR. TACCONE: No. Whether or not your
12 taxes, how your taxes are assessed is a city
13 issue. That's not a Federal issue.

14 MR. JACKSON: Yeah, yeah. I am just
15 using that as an example how it is impacting
16 us.

17 MR. TACCONE: Right.

18 MR. JACKSON: Now if I want to sell my
19 house next week, I have to disclose that it's
20 part of a Superfund site.

21 MR. MANNINO: I am not sure why you're
22 saying it's part of a Superfund site. The
23 Eighteen Mile Creek Superfund site consists of

1 those three operable units that Tom described
2 earlier. The impacted properties on Water
3 Street and Mill Street, the five or six
4 commercial properties that are sources to the
5 contaminated sediments, and the creek
6 corridor.

7 MR. JACKSON: This is a letter I didn't
8 get, but I guess other people got it.

9 AUDIENCE MEMBER: 99 other people.

10 MR. TACCONE: That's the May 2008
11 letter?

12 AUDIENCE MEMBER: Yeah.

13 MR. TACCONE: That is a letter --

14 MR. JACKSON: People shouldn't be
15 walking around barefoot. They shouldn't be
16 growing vegetables or something like that from
17 what I heard.

18 MR. MANNINO: That is a letter -- I
19 haven't seen that letter. I can tell from the
20 logo that's a letter from New York State DEC.

21 MRS. NICHOLAS: No fishing, no eating
22 the fish.

23 MR. JACKSON: If I got neighbors --

1 maybe the mail lady missed my house or
2 something. But if I got neighbors that all
3 got this letter, how are we not directly
4 impacted?

5 MR. MANNINO: Okay. I haven't seen that
6 letter with all due respect.

7 MRS. NICHOLAS: It's right here.

8 MR. MANNINO: Before I comment on the
9 letter, I would like to read it. You talk
10 about fish advisory. Yes, I am aware of the
11 fish advisory for the Eighteen Mile Creek.
12 But, you know, does the creek run behind your
13 property?

14 MR. JACKSON: Yeah, yeah.

15 MRS. NICHOLAS: 99 people got this
16 letter including all of our politicians.

17 MR. MANNINO: Okay. So with all due
18 respect, as I said, I would need to take a
19 look at the letter and I will address your
20 concerns. Without reading the letter to know
21 what the intent of the letter is, I can't
22 speak on that behalf.

23 MS. HOLLAND: A couple more comments in

1 response, comments in response to I understand
2 what you're saying about redacting some
3 information for not wanting people knocking on
4 Jackson Street doors. However, all over the
5 Buffalo News it says you're buying up all of
6 Water Street. No, you're not. I am still
7 there, and technically that's Water Lane.
8 It's not Water Street. I am on Water Street.
9 Well, it is reported and depending on what map
10 you're looking at, it is Water Lane or Water
11 Street. In the meantime, I am on Water
12 Street. You're not buying me. That's not
13 what all the media reports are saying. So
14 guess what, first thing you Google, Water
15 Street is being bought up. No, it's not. I
16 am still there.

17 The reason I am asking about the timeline
18 is because I want that to be part of the
19 community involvement group. I want their
20 input and input into that timeline because I
21 don't want to get something back saying, well,
22 five years from now we're going to come back
23 and clean it all up. I am still stuck there

1 for five years being the only one left there
2 on Water Street stuck with my property that I
3 can't sell because I bought the house three
4 months after that letter and the seller didn't
5 disclose it to me.

6 AUDIENCE MEMBER: Nobody got one. I
7 didn't get one.

8 MS. HOLLAND: He did get it because I
9 called the DEC and they verified that they did
10 send it to that address.

11 MR. TACCONE: Well, we're also going to
12 be developing this plan.

13 MS. HOLLAND: I am responding to what he
14 said. The reason I am bringing up the
15 timeline is because I want the community
16 involvement group to have input into that
17 because I want to be part of that group. I am
18 not going to agree to five years from now. It
19 needs to be done now. Because I know as soon
20 as you get those people out, you're going to
21 drag your feet. I'm not saying you
22 personally. This isn't a personal attack.
23 That's just how things work, and I am stuck

1 there. I can't sell my property. Trust me,
2 if I could, I'd get the hell out of there but
3 I am stuck there.

4 MR. MANNINO: I understand your concern.
5 And just to put things into perspective, EPA
6 has always maintained that impacts on
7 residents of all properties are a priority.
8 And what Mike was saying earlier, we look at
9 the speed of which EPA has done, worked on
10 this project from the time of listing to
11 coming out with a proposed plan to address the
12 first operable unit. And I can't give you any
13 guarantees regarding the progress that we'll
14 make in the future, but I know that this team
15 and this agency is dedicated to this project
16 and it's a priority and so --

17 MS. HOLLAND: Well, in response to have
18 my property tested, you did visit me in June.

19 MR. MANNINO: Yes.

20 MS. HOLLAND: And I had to call both Tom
21 and a couple other people in your office. You
22 could have just told me then that you were
23 going to get back to me, that you needed to

1 develop a plan, instead of letting me go on
2 vacation and reading in the Buffalo News what
3 the actual plan was. I received no
4 notification. I read it in the Buffalo News.
5 That's ridiculous. I live there too.

6 MR. TACCONE: Well, I am sorry. We just
7 hadn't --

8 MR. BASILE: And, Liz, you said you
9 wanted to be a part of this community group,
10 then you should seek out Shirley Nicholas. My
11 suggestion to you is to keep active with her
12 because that's the group that's going to have
13 this technical advisor, so we want to veer
14 responsibilities, okay. Yes, ma'am?

15 MS. FUERTES: Hi, I am Ruth Fuertes. I
16 live --

17 MR. BASILE: Spell your last name.

18 MS. FUERTES: F-U-E-R-T-E-S. I am on
19 the corner of Frost Street and North Adam.
20 When you guys are going to be doing this clean
21 up on Flintkote, what kind of like -- when you
22 do the cleanup, is there going to be any
23 hazardous like asbestos? Are we going to be

1 breathing in all of this stuff? What kind of
2 cleanup are we looking at?

3 MR. TACCONE: There is going to be an
4 air monitoring plan we're going to set up.
5 That's going to, you know -- there will be
6 monitors surrounding the work and the set of
7 levels that are below that are levels that are
8 considered dangerous. So if any of the alarms
9 go off, the work will stop. And they will do
10 things to stop the dust. It's going to be
11 done in a very controlled way. It's just not
12 going to be knocked down on a windy day.
13 We're going to do it in a very controlled way.

14 MS. FUERTES: So I mean do we need to
15 worry about, you know, being contaminated from
16 the cleanup, or you're saying that it's --

17 MR. TACCONE: I am saying that it's
18 going to be done in a very controlled way
19 that's going to prevent contamination from
20 getting off the site while the work is being
21 done.

22 MR. BASILE: As Tom indicated, there is
23 going to be air monitors on site and in the

1 community. There's going to be dust
2 suppression, and there will probably also even
3 be some water suppression depending on the
4 type of winds that day. So there will be all
5 kinds of checks and balances. And of course
6 we don't do anything that's going to
7 jeopardize the community, and we're definitely
8 not going to be doing anything that is going
9 to jeopardize the people that are going to be
10 working for us during the demolition. You
11 will be notified. You will be -- we will
12 notify you. We will post information on the
13 website and notify via fact sheet when the
14 demolition will begin. In that fact sheet, it
15 will outline the health and safety measures
16 that EPA will take because we do it at all of
17 our removals.

18 MS. FUERTES: Thank you.

19 MR. BASILE: Thank you. Any other
20 questions? Do we have any other questions?
21 Yes, one last question, here. Yes, sir.

22 MR. RYAN: I have a few comments.

23 MR. BASILE: Can you please come up to

1 the microphone?

2 MR. RYAN: They will be able to hear me,
3 everybody else does.

4 MR. BASILE: No problem as long as you
5 can spell your last for our --

6 MR. RYAN: R-Y-A-N, is that how that
7 goes? That's one of the most popular names.
8 I lived down across from Flintkote. I lived
9 down there about anywhere from 12 to 15, 16
10 years at 183 Mill. That was when both of
11 these places were going very heavy. I used to
12 fish up there at the bottom of Clinton Street
13 hill where the Eighteen Mile Creek come on
14 across. This was before White's
15 Transportation moved in. Since White's
16 Transportation has moved in, he has put a lot
17 of cinders in there. Now that that's part of
18 the Eighteen Mile Creek, it comes down and Vs
19 out from the overflow from the canal. In
20 fact, a lot of the people that lived in
21 Lowertown know the overflow from the canal as
22 the Old Star Hole which they blocked off.
23 Now, you come down a little bit ways from

1 there, and that was Upson's dump which United
2 Board and Carton and Upson's dumped in there.
3 And what did they put on top of that?
4 Cinders. Now you're talking about cinders.
5 They came from Upson's, and that's
6 contamination.

7 Now this gentleman here is talking about
8 where he was talking about -- that's part of
9 the old city dump. That's where that creek
10 starts from, the city dump. It comes down
11 behind the filtration plant of the Harrison
12 Radiator Division and comes down through what
13 we always called Indian Falls which is the
14 creek. Now that creek comes down and crosses
15 West Jackson Street behind west of the
16 filtration plant. That is where that creek
17 that connects into the Eighteen Mile Creek
18 down in that area.

19 You people have been talking about a lot
20 of these places. You have the Flintkote or
21 the United Board and Carton. What did they
22 produce? Cardboard. What do they put in
23 their cardboard, nothing but bales of paper.

1 The only thing that went into that dump on
2 Clinton Street was wire, metal, or anything
3 like that that would not dissolve in paper or
4 into water. And get down into Flintkote, what
5 do they do? They produce cardboard or paper
6 which across the street they used to take it
7 across and make Flintkote car paper, roofing
8 shingles which is still the business today,
9 the Flintkote. What did they put in there?
10 They put in there cardboard, papers, rags, and
11 wood chips, any of the stuff that would not go
12 into the beaters which would not break down in
13 water. Where they got their water from, I do
14 not know.

15 Okay. Now you go down below the hill
16 where we always called it the tunnel. There
17 is two outlets of water in there. And as many
18 years as I lived there, there has never been a
19 flood in that area, why? I do not know. I
20 think part of the creek is plugged up and the
21 creek is only about three feet deep at most
22 you're lucky. Because if you walk across, if
23 you could make it across because of all of the

1 sludge in the bottom.

2 The Flintkote, on the south and east side
3 there is a hill there and they used to come
4 out because we used to scavenge the dump.
5 They put a fence around there. We got around
6 the fence. You can't keep people out. We
7 used to go down there and scavenge and they
8 used to come out of the mill and dump barrels,
9 garbage. Not garbage but stuff that would not
10 breakup in the mill, and dump it over the
11 creek. You're talking about contamination?
12 If you dug that up, is that it? Is that going
13 to be dug up, or are you just going to cover
14 it up.

15 MR. TACCONE: Are you talking about
16 United Paperboard area?

17 MR. RYAN: Clinton Street -- Flintkote,
18 the south end of Flintkote.

19 MR. TACCONE: DEC sampled that property.
20 We know it's contaminated. We know it is.
21 It's going to be handled as part of our second
22 action. We would take in the building now to
23 complete the characterization of the property.

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1 MR. RYAN: You're going to have to dig
2 back up 10 to 15 foot in order to clear out
3 this whole area --

4 MR. TACCONE: Right.

5 MR. RYAN: -- that you're talking about,
6 Clinton Street or the canal -- the canal
7 because that's really where some of the
8 contamination is coming from. If you're going
9 to do that all, it's going to take about 20,
10 30 years to do this. You haven't got a
11 timetable for this.

12 MR. TACCONE: Well.

13 MR. RYAN: How they going to dig out the
14 creek? Do it with a scoop, scoop it out?

15 MR. TACCONE: Well, we will sample the
16 creek.

17 MR. RYAN: You already sampled it. You
18 have been sampling it for years down there
19 just beyond -- I will say they have. They
20 have been sampling the creek --

21 MR. TACCONE: The second action is going
22 to focus on the creek, the 4,000 feet of the
23 creek and the associated properties.

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1 MR. RYAN: Which 4,000 feet, from where
2 to where?

3 MR. TACCONE: As it flows through
4 Lockport from the canal to Harwood Avenue,
5 right? That's the section we're going to look
6 at. That's probably got a lot of the
7 contamination in it. It flows north, so it's
8 logical to start there. And then we will look
9 at the creek north of Lockport.

10 MR. RYAN: Okay. Now you get down the
11 road a little bit farther. There used to be a
12 place they called, I don't know, Lockport
13 Papermill or something along those lines when
14 I was a kid.

15 MR. TACCONE: You mean outside of
16 Lockport?

17 MR. RYAN: Just past down Flintkote,
18 down around the bend from Flintkote. There is
19 an old mill in there that used to be there
20 before I was around.

21 MR. TACCONE: Okay.

22 MR. RYAN: We used to go down there and
23 play. That's where we used to go play hide

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1 and seek and you go down the street farther,
2 and now you have what it used to be back years
3 ago is Niagara Chlorine. Now you have three
4 different chemical plants down there, and the
5 one on the corner of Mill and well it used to
6 be Center -- North Transit Road, not street
7 but road. That used to be a coal company back
8 years ago. But through the years, it's been
9 made into a chemical plant.

10 Okay. Now behind that, you have a place
11 called Norton Laboratories which is now, from
12 what I understand, is part of the chemical
13 plant. Now back I can't say 15 years ago, 20
14 years ago, a chemical plant was fined because
15 they were dumping stuff over top of the hill.
16 There used to be pipes running right down the
17 creek. They were putting too much chlorine in
18 the water, and were over-chlorinating the
19 water.

20 Okay. Now you go down over the hill go up
21 on the hill behind where Norton Laboratories
22 used to be. There is a hill top. We used to
23 walk that years ago. But whoever owns that

1 piece of property, they put a fence around
2 there. Danger, chemicals what I was told ten
3 years ago from the gentleman that is deceased,
4 that's all bare property down there now.
5 Where is that stuff going, into the creek?
6 Okay now you have another place down there.
7 You have what we call the old soap factor.

8 MR. TACCONE: Soap?

9 THE WITNESS: Soap factory. It's a
10 chemical plant. What they do is burn
11 aluminum. They have got all that
12 contamination there. How are you going to do
13 all of that?

14 MR. MANNINO: So to answer your question
15 as part of the second phase, the second
16 operable unit after the remedial investigation
17 phase, Tom does a feasibility study. It
18 screens, it evaluates the different
19 alternatives or technology to address the
20 contamination. And so we start with a wide
21 range of technology and alternatives. As Tom
22 says, we always look at no action. We will
23 probably look at some kind of excavation

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1 activity whether limited or full excavation.
2 We will look at capping technology,
3 solidification technology. We will screen all
4 of that out, and we will put together a
5 refined list of alternatives that we feel meet
6 the threshold criteria under the Superfund
7 program.

8 We will then -- Tom then evaluates each of
9 those alternative against those nine
10 evaluation criteria. So whether or not it's
11 implementable with the schedule, the timing,
12 the cost, compliance with ARARs, short term
13 effectiveness, implementability, all those
14 nine criteria. Then we will come back to the
15 community with a preferred alternative on how
16 to address a contamination and our preference
17 for a preferred alternative. Then we will
18 seek your input like we're seeking your input
19 tonight for that phase of the work.

20 MR. RYAN: So another place which
21 Shirley don't even know about is the old coal
22 pile. Do you know where the coal pile was?
23 Niagara Board and Carton.

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1 MRS. NICHOLAS: I know exactly where it
2 is. I have a map.

3 MR. TACCONE: There is no doubt it's a
4 big site. We understand that.

5 MR. RYAN: Like I said, I moved out of
6 there in the 50s. And a lot of this stuff has
7 been going on since the 50s. I can say I do
8 not know what's gone on, but I can tell you
9 what I knew up until the 50s.

10 MR. TACCONE: Okay.

11 MR. RYAN: Thank you.

12 MR. BASILE: Thank you.

13 MR. MANNINO: If I could just say one
14 more thing. We realize that there are -- that
15 in Lockport there are various sources of
16 contamination, and there are various issues.
17 We, at the EPA Superfund program, do not have
18 the authority to look into each of those. We
19 are here to focus on the Eighteen Mile Creek
20 Superfund site as it was listed on the
21 National Priorities List. If there are other
22 issues in the community that you have concerns
23 with, we will try to figure out which is the

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1 right program that is currently addressed for
2 those particular facilities and, we will put
3 you into contact with the agency or the
4 department that is doing work on there.

5 I just want to make sure no one has the
6 expectation that Tom is going to be handling
7 all of the various sources of contamination
8 that may or may not exist within the City of
9 Lockport. We have specific authority on what
10 we can spend Federal and State money on. That
11 is limited to, at this point, the Eighteen
12 Mile Creek site and the sources that are
13 defined under that National Priorities List.
14 I just want to make sure everybody keeps that
15 in context as we move forward.

16 MR. RYAN: Like I said, what's going to
17 happen is you're going to be retired and
18 they're still not going to have half of that
19 done.

20 MR. MANNINO: We realize that --

21 MR. RYAN: There is nothing you can do
22 about it.

23 MR. MANNINO: Yes. Jim?

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1 MR. BASILE: This will be the last
2 comment.

3 MR. STILES: James Stiles, S-T-I-L-E-S.
4 First of all, I want to say good job on the
5 presentation I guess. I have a few concerns
6 moving forward as far as communication between
7 the DEC and the EPA with the residents of
8 Water Street. Some of us are getting phone
9 calls, mail, and some of us ain't. So we're
10 sort of lost in the shuffle about what's going
11 on, and we have to be sort of concerned about
12 the next step and the next step for our
13 family's sake. If we could get on the same
14 page for five, six houses, seven maybe but I
15 mean there --

16 MR. BASILE: That's easily fixed. No
17 problem.

18 MR. STILES: Second of all, Shirley,
19 you're the Godsend here. Thank you for
20 everything you're doing. We appreciate it.

21 MRS. NICHOLAS: You're welcome.

22 MR. STILES: And to go along with that,
23 she has given me reports that you guys have

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1 all done on animals and fish and so forth to
2 measure how deep the contaminates are in the
3 Eighteen Mile Creek. But we haven't been
4 medically tested to see if there is anything
5 wrong with us because everybody in that area,
6 you know, from whatever year they were born to
7 now has obtained some sort of form of cancer
8 in that area. I would like to know what is
9 going on. I have a three-year old son. That
10 should be like automatic with that. My mother
11 lived at the house as well. She fought the
12 battle of breast cancer and won. And then
13 after that she was diagnosed with MS. There
14 are concerns down there still. I would like
15 to know more about that information. I know
16 you gave me a couple numbers.

17 MR. BASILE: I gave you numbers for the
18 County Health Department and the New York
19 State Department of Health.

20 MR. STILES: Right. But I was thinking
21 of it being more formal when we're going
22 through this sort of process we all get that
23 sort of information.

1 MR. BASIL: We can definitely do that
2 during the process. During the community
3 involvement interview, I did give you the
4 number for the Niagara County Health
5 Department and the New York State Department
6 of Health.

7 MR. STILES: Right. But I thought that
8 everybody should get that formally.

9 THE COURT: I understand that, totally
10 do.

11 MR. STILES: However you guys do. And
12 my second or third question actually is the
13 timeline of all of this. I came here a little
14 late, sorry everybody. But I don't know if we
15 have is it happening to this, happening to
16 this. I am more concerned about the health
17 and where I can put him and be safe if you
18 guys can address this now or later.

19 MR. TACCONE: We will get the plan.
20 Comments are due by August 26th. Once we get
21 all of the comments, we will work on the final
22 decision document. That is called the Record
23 of Decision. Let's plan for September. And

1 then once that is issued, we can start on the
2 remedy phase and it will be 2014. We have to
3 compete with other sites for funding now. You
4 have seen on the news what the federal budget
5 is like. It's very tight, but we do have
6 money and we have got to compete against other
7 sites. Our goal is to, you know, begin work
8 the first part of it in 2014.

9 MR. STILES: If you could just keep us
10 informed of what's going on. And when you get
11 information, please just relate to us so we
12 know what's going on. Terry did a great job
13 this morning. Woke me up at 8 this morning
14 doing their soil samples. I appreciate it.
15 Thank you very much.

16 MR. BASILE: Thank you, Jim. We have
17 this young lady here and then we have one up
18 front which will be the last question.

19 MS. SPERANZA: Good evening, I am Carla
20 Speranza, S-P-E-R-A-N-Z-A, and I live on
21 Lincoln Avenue. I am in the town, but I do
22 have concerns. We have got a proposed plan
23 here for \$3 million you just said. You're in

1 competition to, you know, be able to access
2 the funds because they are finite. I have a
3 couple of questions and concerns. Number one,
4 what are the contingencies? Let's say for
5 example those air quality monitors go off and
6 work has to stop and it has to stop for X
7 amount of days, maybe even a week or so until
8 they can remediate the issues that are causing
9 the air quality issues, okay, where is that in
10 the budget? No. 2, once the materials have
11 been removed, how are they being transported?
12 Where are they being transported too? Who is
13 doing the transportation? And how is the
14 toxic waste being managed once it leaves the
15 sites?

16 MR. TACCONE: I think you're referring
17 to the demolition of the building at the
18 Flintkote property?

19 MS. SPERANZA: Not only the residual
20 building materials, but also the chemicals in
21 the soil or the soil itself that's going to be
22 excavated. What is the plan for that soil?
23 Is it getting trucked out? Is it getting

1 railed out? Where is it going?

2 MR. TACCONE: Okay. The work will be
3 done in phases. The remedy is first design.
4 And during the design, we develop plans for
5 implementing what we're going to do for
6 example knocking down the building. We would
7 have an air monitoring plan. Funds would be
8 appropriated before we do it so there wouldn't
9 be a funding problem, but it would be funded
10 in an incremental way. Once the building is
11 demolished, the material will be sampled and
12 sorted. You will have contaminated material,
13 and stuff that is not contaminated. The
14 contaminated stuff will be trucked off site in
15 covered trucks to appropriate disposal
16 facilities.

17 MS. SPERANZA: Within New York State or
18 outside of New York State?

19 MR. TACCONE: That depends on the
20 design.

21 MR. BASILE: That depends on the time,
22 the year.

23 MR. TACCONE: The properties will be

1 excavated, like I said, in the second action
2 when the rest of the corridor is worked on and
3 that will be done according to a design. The
4 design will lay out the exact area that's
5 going to be excavated, area in depth. There
6 would be monitoring programs set up. Whenever
7 you move dirt out in the open area, you always
8 set up an air monitoring program. The
9 contaminated dirt, again, will be trucked off
10 site in covered trucks at a proper disposal
11 facility.

12 MR. BASILE: Excuse me, excuse me. Yes
13 there was a gentleman back there. He has been
14 waiting, and then I have one person here. And
15 then if you have any other questions, you can
16 come seek us. We will remain here. Yes, sir.

17 MR. PUSATERI: Name is Sal Pusateri,
18 P-U-S-A-T-E-R-I, Junior. My concern was that
19 you mentioned all of the streets around where
20 the Flintkote is, you didn't mention Lower
21 Vine Street, Dayton Street, Butler Street,
22 Center Street. We're all about a block and a
23 half away from this Flintkote, and I noticed

1 about a year ago or so that my cellar floor
2 where my oil tank used to be, the floor
3 raised. I don't know why it raised. I mean
4 there is no water that seeps in my walls, but
5 part of my cellar floor came up. I had to
6 break that down with my sledgehammer so I
7 could level the floor down, but the floor
8 there is still a little moist. But I have a
9 humidifier going 24/7. I am just wondering
10 why our streets weren't mentioned in this
11 survey.

12 MR. TACCONE: Well, the site really, the
13 center of the site is the creek and then you
14 have got properties associated with the creek
15 and these are properties that lie right next
16 to the creek in the Corridor as I explained.
17 Now, going out from there, you're talking
18 about a different type of -- whether or not
19 it's site related is unknown at this point.
20 Right now we're looking at the Corridor. And
21 we're looking at the properties that have
22 already been sampled.

23 MR. PUSATERI: I didn't realize that

1 when I was putting my garage up 15 years ago
2 that there was a little ash in the ground.

3 MR. TACCONE: Right. See the floor
4 movement could be it freezing. Is there
5 contamination coming up?

6 MR. PUSATERI: I don't know. It's a
7 little moist in that area in my cellar.

8 MR. TACCONE: It could be freeze or thaw
9 or something like that.

10 MR. PUSATERI: But my wife is a cancer
11 survivor. She is five years that she has had
12 cancer, and we're noted for Niagara County to
13 have cancer.

14 MR. TACCONE: How close are you to Mill
15 Street?

16 MR. PUSATERI: I am probably about a
17 block, block and a half away from Mill Street.

18 MR. TACCONE: Block and a half away. We
19 did that sampling along Jackson to get an idea
20 of the study area, and the values didn't come
21 up very high along Jackson Street. I guess
22 that's going towards Vine.

23 MR. PUSATERI: My property is joined

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1 with the McCollum farms.

2 MR. TACCONE: And the property there is
3 elevated. It's not?

4 MR. PUSATERI: No, we're down in the
5 valley.

6 MR. TACCONE: That's down lower?

7 AUDIENCE MEMBER: It's the other way.

8 MR. TACCONE: It's on the Mill Street
9 side?

10 MR. PUSATERI: Yes. It's on the Mill
11 Street side. I am just wondering how come our
12 ground wasn't sampled.

13 MR. TACCONE: Right. Because we're
14 really focusing on the corridor now. That's
15 why.

16 MR. PUSATERI: All right.

17 MR. BASILE: Yes, ma'am. Did you have a
18 question? Was that the question? Excuse me,
19 one second.

20 MS. GAWVE: You almost made me forget my
21 question. Are you aware of the PCBs that are
22 in Flintkote?

23 MR. TACCONE: Yes. We know the PCBs

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1 have been found in Flintkote.

2 MS. GAWVE: I assure you they are there.

3 MR. TACCONE: They're down by the
4 discharge into the creek.

5 MS. GAWVE: Yes.

6 MR. BASILE: Just one quick question. I
7 have heard that many times. If you have a
8 question, please, please we ask you to --
9 thank you, thank you, thank you.

10 MS. KIENE: With regards to the
11 container that they found that has the
12 asbestos where the gentleman didn't proceed
13 with his project, when is that container going
14 to be removed because it has been stated that
15 there is asbestos in there? Thank you.

16 MR. BASILE: Terry.

17 MR. KISH: The container that's been
18 brought up a couple of times, it has been
19 tested positive for asbestos. Mostly it just
20 contains building debris, but the Department
21 of Labor did find small fragments of asbestos
22 in there as well. An asbestos cleanup is
23 going to be started either late summer or

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1 early fall. And at that time, we will take
2 care of the container at the same time we take
3 down the building at 89 Mill Street.

4 MR. BASILE: I want to thank everybody
5 for participating this evening. In no way,
6 shape, or form does it end here. We still are
7 in our public comment period. And if you have
8 any questions, please come and see us
9 following the meeting. You have a good
10 evening. Thank you so much.

11
12 (Meeting concluded at 8:43 PM.)

13 * * * * *

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23
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170 Franklin Street, Suite 601, Buffalo, New York 14202
716-853-5544

1 STATE OF NEW YORK)

2) ss.

3 COUNTY OF NIAGARA)

4
5 I, Carrie Fisher, Notary Public, in and for
6 the County of Wyoming, State of New York, do
7 hereby certify:

8 That the witness whose testimony appears
9 hereinbefore was, before the commencement of
10 their testimony, duly sworn to testify the
11 truth, the whole truth and nothing but the
12 truth; that said testimony was taken pursuant
13 to notice at the time and place as herein set
14 forth; that said testimony was taken down by
15 me and thereafter transcribed into
16 typewriting, and I hereby certify the
17 foregoing testimony is a full, true and
18 correct transcription of my shorthand notes so
19 taken.

20 I further certify that I am neither counsel
21 for nor related to any party to said action,
22 nor in anyway interested in the outcome
23 thereof.

18 IN WITNESS WHEREOF, I have hereunto
19 subscribed my name and affixed my seal this
20 ____ day of _____, 2013.

21 -----
22 Carrie A. Fisher
23 Notary Public - State of New York
No. 01FI6240227
Qualified in Wyoming County
My commission expires 5/02/15

DEPAOLO-CROSBY REPORTING SERVICES, INC.

170 Franklin Street, Suite 601, Buffalo, New York 14202
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Appendix V
Attachment E

Comments on Proposed Plan

August 5, 2013 Meeting- EPA
Subject- Remediation eighteen Mile Creek
Background Information

My name is Jean Kiene and I reside at 400 Willow Street, Lockport, NY. I am the fourth generation of Irish ancestry who have continuously lived in and loved Lockport. My Grandfather, Timothy O'Shaughnessy, was Alderman of the East End for many years. He earned the title of Watchdog of the City Treasury. My Dad was a physician in Lockport for over fifty years and I remember him saying that water is our common denominator.

The contamination that has taken over Lockport has alarmed me. It is a serious threat to the health and well being of our citizens. Our MS rate is one of the highest in the country and cancer is rampant. It is due to my sincere concern for our health that I bring the following to the attention of the Federal D.E.C.

Eighteen Mile Creek Corridor; Lowertown

I am requesting the release of all of the information, dates, types of testing, and location of such that led to the decision for the N.Y.S.D.E.C. to issue a letter dated May 28, 2008 advising close to 100 property owners that they reside in a Code 2 area, defined as a significant threat to their health or environment.

A. Afflicted Streets

1. Water St.
2. Chapel St.
3. Mill St.
4. Jackson and West Jackson Sts.
5. 59 Olcott St
6. William St.
7. Porter St.
8. Center St.
9. Frost St.
10. Van Buren St.
11. Clinton St.

B. Please note that although I could not locate any correspondence advising those on Harwood I believe that street is also of concern.

C. I am requesting an explanation as to why only one site on Olcott St., namely 59, was notified and not others, that contamination was an issue.

D. I'm suggesting for the health and well being of the property owners who received notifications of contamination on May 28, 2008 that the Federal D.E.C. provide current soil testing for the contamination as it may currently exist.

Water Street

In conjunction with the proposed remedial assistance to those who reside on Water St. I strongly suggest that all current residents be provided with a complete and thorough physical examination and that their histories be followed by the Health Department. It was previously brought to the attention of the N.Y.S.D.E.C. that cancer recently consumed a family of three, including the family dog. They resided on Water Street.

I also bring to your attention that at the meeting of June 5, 2013 I mentioned a letter sent to the Water St. residents that they should do no planting of vegetables and that the children should wear shoes when outside. The reply to me that night was, there was no recollection of any such letter and the people on Water St were not questioning garden planting.

Please refer to the Buffalo News, July 11, 2013 statement of Kristina Morrison of the fact that she received notification of; not to walk barefoot in her yard or plant a garden.

The health of those who reside on that street should be closely maintained by the Federal D.E.C.

Page 3

Barge Canal

Please note the attached newspaper article relative to coal tar leaking into the canal. Canal water has been provided in the past, as drinking water for the City of Lockport.

The stench of the water in the area of Exchange and Market St can only be described as that of countless outhouses.

This year large numbers of fish were seen fighting for their lives in the Lockport section of the canal.

Again, I am requesting as part of the Eighteen Mile Creek Clean-up that the Federal D.E.C. monitor the Lockport section of the canal and provide current testing.

Industrial Factories

Currently in operation are factories, formerly known as Van De Mark Chemicals. They have access for the discharge of wastewater into the creek.

These factories have been known to manufacture chemicals that are one of the most potent known to mankind. Currently, Millard Alloys and Vanchem are allowed wastewater discharge into the creek.

I am requesting that the Federal D.E.C. as part of the Eighteen Mile Creek remediation provide the public with an exact list of the chemicals produced and the volume. Further, that the Federal D.E.C. monitor this site on an on-going basis with air and soil testing due to the severity of the chemicals, such as phosgene.

Guterl Steel Plant Site

This site is contaminated with the residual radioactivity due to the involvement with the Atomic Bomb components. It has been alleged that the water run off has reached the Barge Canal.

I am requesting that the Federal D.E.C. provide the necessary current testing to determine whether this site is injurious to our environment and health. If found to be contaminated, what remedial action can be taken?

Page 6

Eighteen Mile Creek Fish Advisory

Per correspondence of May 28, 2008 it is noted that a fish advisory was in effect. "Eat none for all species" due to Eighteen Mile Creek contamination.

What safe guards have been provided by the NY D.E.C. to advise the general public of the dangers of eating fish from the creek?

Old Upper Mountain Road Site

The property owners of Otto Park Place were not officially notified of the fact that Otto Park Place is a Toxic Two Site. A public meeting conducted by the N.Y. S. D.E.C. was held at City Hall. A resident questioned why no notification, or reply to the information was available? They stated it was available on the computer. The resident does not own a computer, and why would she be looking for her street to be on a toxic web site?

She requested that her property be tested. The reply was negative from the N.Y.S.D.E.C. She stated she would seek a private company to test. The reply from N.Y.S.D.E.C. was the test would not be valid as she lives near a four lane highway.

Gulf Creek flows along the bottom of the ravine and discharges into Eighteen Mile Creek.

I'm requesting the Federal D.E.C. advise the residents of the toxic issue and that contamination testing be provided for all Otto Park properties. This site relates to the Eighteen Mile Creek issue. Please refer to page 53 and 54 of the Eighteen Mile Creek Remedial Action Plan dated December 2011.

Flintkote Background

Niagara County assumed ownership of the area known as Flintkote in the year 2006. At one point funds were appropriated for the clean-up. However the State became involved and the situation remained status quo until a child was severely injured on the property.

Enter Shirley Nicholas, who began to question why the County lacked interest in property that was owned by them as it was a Toxic Two site. A group of concerned citizens accompanied Shirley to a County Legislature Meeting, where she attempted to address the issue. The disdain shown to her was appalling. Shirley then addressed the Mayor of Lockport, the City Attorney, and the Aldermen, again greeting her with snickers and disdain. The Mayor assured her there was no contamination with regards to her property.

As a group, we sought the attention of the media. Our local radio station was the first to shine a light on the contamination. Enter Congress woman Representative Kathy Hochul. She recognized the seriousness of the problem.

At this point in our venture for help, I note that not long after that, Niagara County arranged a press conference. It dealt with another toxic site, Dussalt Foundry, also in Lockport. Shirley and I were in attendance and Mr. Christian Peck, from the Public Relations Office for Niagara County, was in charge. I raised the question as to where we were to stand. Mr. Peck replied "The railroad tracks". Representative Hochul was not there. However she was represented by Joan. Following Mr. Peck's verbal vomit, I asked Joan to accompany us to Water St and the rest is history.

Through our perseverance, Eighteen Mile Creek is now before the Public of Western NY. Words fail me for the gratitude I have for the news coverage provided by Channel 4, the Buffalo News, and our local radio station WLVL.

I contend that those in the official capacity chose not to help. Removal of the water tower and fencing was only provided after Shirley brought it to the media.

Note that the local politicians were out in full force for a photo session when the tower was removed.

Praise be for the media, Kathy Hochul, Chuck Schumer, and Tom Taccone.

In order that my records may be complete, I am requesting, within 10 days, a written reply to my questions. Thank you in advance for your anticipated cooperation.



Jean Kiene



Office of the Mayor

Michael W. Tucker, Mayor



LOCKPORT MUNICIPAL BUILDING
One Locks Plaza
Lockport, NY 14094
P: (716) 439-6665
F: (716) 439-6668

August 12, 2013

Tom Taccone
Regional Project Manager
Environmental Protection Agency

Dear Tom:

I am unable to make the public meeting on August 13th, and I am sending Common Council President Anne McCaffrey in my place.

I would like the City of Lockport to be on record of supporting the proposed plan of buying out the families on Water Street and moving them to another location, but we will only support this if the residents on Water Street support it themselves and they are fairly compensated. We have always thought that this is the most viable solution for the benefit of all.

If there is anything that we can do as a City to help, please contact us. Thank you.

Sincerely,

Michael W. Tucker
Mayor

MWT/lag

8-13-13

To whom it may concern,
My name is Holly K. Lee, I resided
at 117 Water st. My family
lived there for 30 yrs. My mother
passed at 66 from Lung Cancer, my
brother at 41 passed from a Tumor
in his head and liver cancer.
My step father just passed in March
at the age of 73, from being
riddled w/ tumors and kidney
cancer. Raw sewage ~~was~~
coming out of our Toilet and bath
tub when it rains hard. The
raw sewage filter down the street
blew up and sent Raw sewage
all the way down to my neighbor
and my ~~house~~ yard

Sincerely

Phone #
716-201-7212

Holly K Lee

I would like to thank the EPA and everyone involved in holding this public information meeting. I would also like to thank Senator Schumer for his help regarding Lowertown residents and 18 mile creek.

My name is Michael J. Pillot, I am a lifelong resident of Lockport and grew up on Market Street next to the Erie Barge canal. I lived there until the early 70's when urban renewal and our local politicians decided to ruin our city. I attended De Witt Clinton School on Clinton Street, two blocks from the creek. I often went to the papermill to get cardboard for school projects.

As a youth it was not unusual to see dead fish along the creek or canal. I've seen thousands over my life time. It was not unusual to see a cloudy haze over Lowertown on humid nights from all of the factory's emissions. It was not unusual to see dead or sick animals. I personally lost pets to cancer and tumors. I watched my grandmother suffer and die from cancer. I recently watched my sister die a horrible death from cancer.

When my father worked at the papermill on Mill Street I would go there a couple times a week to get books. On several occasions I would see a fork truck with four 55 gallon drums of liquid and dump them into the creek. (pictures 1, 2, and 3). I've personally seen the discharge pipe on Market Street near the Exchange Street Bridge, the discharge pipe off Mill Street near Van De Mark Chemical and the discharge pipe on Market Street near Vine Street. Who knows what's coming out of them.

I spoke at the June 5th meeting because I am and always will be a Lowertown boy. It was because of two city residents, Mrs. Jean Kiene and Shirley Nicholas, who brought it to the attention of Ex- congresswoman Kathy Hochul. It was made public when Donna Piezala invited Congresswoman Hochul to appear on her show at our local radio station. On June 5th I made two statements. First, I did not think that bringing in dirt was going to help and was nothing but a waste of money. I thought the residents should be relocated. I am pleased that Senator Schumer agreed they should be relocated. I am not happy about what they are offering the residents. I think 250,000 is not only an insult it is a slap in the face. They were willing to spend 1.2 million on fill and 250,000 on buying out 5 residents, that's 50,000 per house. I believe the residents should be given a house comparable to what they have. I am not saying give them all mansions, but something comparable to what they have. These people are not rich. They are hard working people just trying to survive. They cannot afford the expense to move that's why they are still living there. The second statement I made was, I thought that 18 mile creek was worse than Love Canal and I still believe that.

This is not a new problem that just arose. This has been going on for years. Our local politicians have done nothing to help the residents of Lockport. Most residents do not even know who represents them, and if they do know, they have never met them. I didn't even know who my legislator was until a year and a half ago. You only see them during an election year when they make their shallow promises.

In 2011, when, with the help of Congresswoman Hochul, the dangerous water tower at the old Flintkote was torn down, our local politicians took all of the credit, it was an election year. One of the city's most controversial elections ever. What have they done since then?

Put a tarp and a fence around a dumpster filled with asbestos on Mill Street (pictures 4&5) and put the owner of a dry cleaning store in jail for not tearing down a collapsed building, picture (6).

When I asked if the dry cleaners were toxic, I was asked if it was political. I asked because my kids grew up playing in the park a block from the site.

Over the past 5 years our local politicians have spent well over 500,000 on free concerts. Yes, well over one half million dollars on a concert, but yet, the contaminated dumpster and the dry cleaners are still there. It was like putting a band aid on a broken arm. They want to spend millions on the locks because they think it will bring in tourists and solve all of Lockport's financial problems. Take care of the residents first, and then worry about the tourists. Most of the people who are sick or dying from cancer don't really want to go hear a free concert or visit the locks.

I plead with all of you to help the residents of Lowertown, and all of the Lockport residents, because I don't believe our elected officials care about anything but being re-elected so they can keep their friends and relatives employed. I pray that after the election we are not forgotten

4

like we have been in past years. It's time that people's health comes before politics or money.

Thank you for giving me this opportunity to address my thoughts and concerns to you.



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From: Yahoo!!! [nanagrandma2@yahoo.com]
Sent: Wednesday, August 14, 2013 6:57 PM
To: Taccone, Tom
Subject: Water Street

Hi,

I am writing to give you my comments on the meeting that was held 8/13/13 at the Farm & Home Center.

I am pleased that something is finally happening and is being taken care of. My name is Karin Stiles and as you will probably figure out, my son is James, who lives at 143 Water Street. Little background on me, back in 2002 I was diagnosed with breast cancer which was one reason I called the NCHD to test our property but we also had a garden and there was no way anybody could eat any thing that grew there. As time went on, the county came and tested the property and year after year, State came and tested it and was basically told that we had chemicals on the property but nothing was getting done. At that time, we were also getting flooded also. We moved in 2006 and in 2007, I was diagnosed with MS. I know MS is related to environmental and since it does not run in my family, I do believe I caught it when I lived there.

I know things have to happen in steps but my concern is why couldn't you at least by my son out first since he lives directly behind the Flintkote and the creek is in the back of his house and side and he gets flooded the most. He gets the majority of the flooding and he is the only one, I believe, that has a little child. I would hate to have my son, daughter-in-law and grandson be cursed with MS. Please consider moving them as soon as possible.

On a personal note, I read in the paper that they want to give each families \$50,000 which is fine but I do feel that my son and possibly the brown house on the other end of the Water should get a little bit more considering the size of the house. Also, I believe my son has the most property. The three houses in between should not get the same amount. I do not care if the one person sided, did repairs in his house. The only reason he did that is when he found out they were buying the houses, he wants more money.

Thank you for all you are doing and if you do need to contact me for any reason my phone number is 716-930-9954 .

Karin Stiles
172 Erie Street
Lockport, NY 14094

From: Kelly Letourneau [ioncookbooks@yahoo.com]
Sent: Thursday, August 15, 2013 11:42 AM
To: Taccone, Tom
Subject: Lockport Contamination

Dear Mr. Taccone,

My grandfather lives at 209 Jackson Street in Lockport and received a letter saying that his property, which is partially on Water Street, is contaminated. Because he is elderly and no longer drives, and I live out of state, neither of us were able to attend the meeting that was held on August 13. I have watched news coverage of the meeting and am concerned that you are only relocating the families that live on Water Street and not all of the homes that are effected by the contamination. It seems like the EPA should purchase all of the effected properties as the home owners will never be able to sell them even with a soil cap in place.

Would you please send me recent and future information regarding this matter and take into consideration the other families that are effected by this contamination.

Sincerely,
Kelly Letourneau

From: James Stiles [stiles13@yahoo.com]
Sent: Thursday, August 22, 2013 6:45 PM
To: Taccone, Tom
Subject: 18 mile creek,

To Whom it may concern;

I James Stiles of 143 Water Street believe the plan that best suits the needs of the affected people and community would be the (Soil Alternative s3b) plan. To relocate the homes along the 18 mile creek and remove the building(s) on Mill St. as well. My expectations on the relocation of homes would be a price that would make it easy and stress free to find a home that has the same comforts and amenities that i currently have now. For instance i live on a private section of the city and street for that matter. Privacy is priceless, plus if it were a clean 18 mile creek, around 50% of my property would be usable to do things like teach my son to fish. I'd say that is a luxury you cant find elsewhere. After reviewing homes via Trulia, Zillow.com, and Niagara/Buffalo homes.com there was nothing that featured those qualities. Also for me i'm located less than 10 minutes away from my job and babysitter. One home that i did find to stay in the time frame on my daily commute and away from the 18 mile creek was above my current homes value. Plus the one thing that means alot to me personally because of the past, and what I've dealt with is health issues. I'd like to see physical screenings every 18 months (and treatment if needed) over the next several years. Please understand that I know that no one wants to be in a situation like this one, but understand i've been a prisoner in my own home and had to limit my childs play outside due to concerns of the content on my property. The creek was a direct threat to me and my family because it would flood my home seasonally. In short this issue has (i believe) caused cancer in my family, altered my path in life because i had to take care of my family, and now moving. I hope all these factors are thought about when making any decisions going forward. Thank you for your time.

August 26 2013

Thomas Taccone
Remedial Project Manager
EPA Region 2
290 Broadway – 20th Floor
New York, NY 10007

Re: *Comments on behalf of Steven Malcomb 113 Water Street, regarding Proposed Plan for Eighteen Mile Creek Remedial Actions*

Dear Mr. Taccone:

The Law Offices of Roy L. Mason, P.A., on behalf of its client, Mr. Steven Malcomb, hereby submits the following comments to the Superfund Proposed Plan for the Eighteen Mile Creek Superfund Site in Niagara County, New York, that was announced in a report dated July 2013. While this remedial plan evidences an earnest attempt by the EPA to address this disaster, it fails in two crucial respects.

1. The remedial plan fails to address the health consequences of the contamination.

Mr. Malcomb and the residents of Water Street have been exposed to dangerous levels of PCBs, lead, and other metals for over a decade. Continued exposure to the contamination has placed all of the Water Street residents at a high risk of developing cancer and other significant health problems. The International Agency for Research on Cancer, the National Toxicology Program, and the National Institute for Occupational Safety and Health, have all determined that PCBs are likely human carcinogens.¹ Studies of PCBs in humans found increased rates of melanomas, liver cancer, gall bladder cancer, biliary tract cancer, gastrointestinal tract cancer, and brain cancer and breast cancer.² In addition, women who are exposed to PCBs before or during their pregnancy run a higher risk of giving birth to a child who has significant neurological, motor, and memory problems.³ The results of EPA's own Human Health Risk Assessment stated that the contaminated soil presents an unacceptable risk to human health for the residents of Water Street.

¹ *Health Effects of PCB's* <http://www.epa.gov/osw/hazard/tsd/pcbs/pubs/effects.htm>, updated June 13, 2003.

² ClearWater News and Bulletin- Fact Sheet 12, *What are the Human Health Effects of PCB's?* <http://www.clearwater.org/news/pcbhealth.html#refs>. Accessed August 15th, 2013.

³ *Id.*

Unfortunately, the remedial plan, as presented in the July 2013 report, does not provide affected residents, including Mr. Malcomb, with any compensation for past, present, or future medical expenses associated with the contamination. Mr. Malcomb has resided at the 113 Water Street property since 2005. Since that time, he has been exposed to contamination on a daily basis. Every day from 2005 until the present day, Mr. Malcomb has walked on soil and inhaled contamination released from soil that contains PCB's and other heavy metals. As a result, Mr. Malcomb will probably incur significant medical expenses associated with the monitoring and possibly treatment of contamination-related health problems. Absent compensation to affected residents for past, present and future injuries that have been caused by this disaster, the EPA's remedial plan will be inadequate.

2. The remedial plan fails to specify compliance with the Uniform Relocation and Real Property Acquisition Policies Act.

According to EPA's *Interim Policy of the Use of Permanent Relocations as Part of Superfund Remedial Actions*, all permanent relocations funded through CERCLA should be implemented in accordance with the Uniform Relocation and Real Property Acquisition Policies Act (URA), 24 USC §§ 4600-4655. The remedial plan includes the acquisition of affected residential properties and the relocation of residents in 6 Water Street homes. Though no dollar amount is presented in this plan, any amount offered to Mr. Malcomb to purchase a comparable home in a contamination-free area must be in accordance with prevailing federal law and policy.

a. 42 USC § 4651 requires that the offer to purchase the affected property disregard any decrease in value caused by the "improvement."

While not specified in the remedial plan as presented, it would be improper under 42 U.S.C § 4651 for the EPA to purchase Mr. Malcomb's home at the current "value" because the home has become essentially worthless as a result of EPA's publicizing the contamination. Mr. Malcomb purchased his Water Street home prior to the damaging publicity, without knowing the extent of the contamination, and through no fault of his own he is unable to sell his worthless property and move to new area. Unquestionably, the fair market value, if it is defined by comparable recent sales prices, has been drastically deflated because of the public's awareness of the contamination.

However, federal law requires that any decrease in value must be disregarded. Specifically, 42 USC § 4651 provides:

Any decrease or increase in the fair market value of real property prior to the date of valuation caused by the public improvement for which such property is acquired, or by the likelihood that the property would be acquired for such improvement, other than that due to physical deterioration within the reasonable control of the owner, will be disregarded in determining the compensation for the property.

42 USC § 4651(a)(3) (emphasis added). The "public improvement" referred to in this section refers to the EPA's protection of the environment and area residents from the contamination. Part of this "public improvement" has been those public reports and statements that the EPA has

made, following the purchase of Mr. Malcomb's home, which have drastically reduced the comparable sales prices in the area. Thus, the EPA's offer to Mr. Malcomb must exceed any valuation based on current market prices that have followed the publicity of the contamination.

b. 42 USC § 4622 requires that the relocation offer include moving and relocation expenses.

In addition to being paid the fair market value of the home that is adjusted in the manner described above, Mr. Malcomb must be paid moving and relocation expenses. Specifically, he must be paid "actual reasonable expenses in moving himself, his family, business, farm operation, or other personal property." 42 USC § 4622(a)(1). He also be compensated for "actual direct losses of tangible personal property as a result of moving or discontinuing a business or farm operation..." 42 USC § 4622(a)(2). Thus, any relocation offer extended to Mr. Malcomb must include actual expenses that will be incurred in moving to a comparable home and any losses of tangible personal property or other losses described in § 4622(a)(2).

c. 42 USC § 4623 requires that the relocation offer include costs that will be incurred in acquiring a comparable home.

Because Mr. Malcomb has resided in his home since 2005, he must be paid additional amounts pursuant to 42 USC § 4623. Specifically, he must be paid the "amount, if any, which when added to the acquisition cost of the dwelling acquired by the displacing agency, equals the reasonable cost of a comparable replacement dwelling." 42 USC § 4623(a)(1)(A). He must also be paid the "amount, if any, which will compensate such displaced person for any increased interest costs and other debt service costs which such person is required to pay for financing the acquisition of any such comparable replacement dwelling." 42 USC § 4623(a)(1)(B).

Conclusion

For the reasons explained above, the EPA's remedial plan is deficient because it fails to account for the health consequences of the contamination and fails to specify that any offer will be made in accordance with 24 U.S.C. §§ 4600-4655. Mr. Malcomb is entitled to just compensation for the purchase of his home and subsequent relocation, and any offer extended to him must address all costs and losses that he has incurred or will incur from this disaster. Accordingly, Mr. Malcomb respectfully requests the amount of \$250,000.00 for the sale of his home and subsequent relocation.

Thank you for considering these comments on behalf of Mr. Steven Malcomb. Please contact the Law Offices of Roy L. Mason with any questions or concerns.

Very truly yours,

/s/ Roy L. Mason

Roy L. Mason
Dan Fligsten (NY Counsel)
Julie Kuspa

August 26 2013

Thomas Taccone
Remedial Project Manager
EPA Region 2
290 Broadway – 20th Floor
New York, NY 10007

Re: *Comments on behalf of Kristina Morrison, 99 Water Street, regarding Proposed Plan for Eighteen Mile Creek Remedial Actions*

Dear Mr. Taccone:

The Law Offices of Roy L. Mason, P.A., on behalf of its client Kristina Morrison, hereby submits the following comments to the Superfund Proposed Plan for the Eighteen Mile Creek Superfund Site in Niagara County, New York, that was announced in a report dated July 2013. While this remedial plan evidences an earnest attempt by the EPA to address this disaster, it fails in two crucial respects.

1. The remedial plan fails to address the health consequences of the contamination.

Ms. Morrison, along with other residents of Water Street, has been exposed to dangerous levels of PCBs, lead, and other metals for over a decade. Continued exposure to the contamination has placed all of the Water Street residents at a high risk of developing cancer and other significant health problems. The International Agency for Research on Cancer, the National Toxicology Program, and the National Institute for Occupational Safety and Health, have all determined that PCBs are human carcinogens.¹ Studies of PCBs in humans found increased rates of melanomas, liver cancer, gall bladder cancer, biliary tract cancer, gastrointestinal tract cancer, and brain cancer and breast cancer.² In addition, women who are exposed to PCBs before or during their pregnancy run a higher risk of giving birth to a child who has significant neurological, motor, and memory problems.³ The results of EPA's own Human Health Risk Assessment stated that the contaminated soil presents an unacceptable risk to human health for the residents of Water Street.

Unfortunately, the remedial plan, as presented in the July 2013 report, does not provide affected residents, including Ms. Morrison, with any compensation for past, present, or future

¹ *Health Effects of PCB's* <http://www.epa.gov/osw/hazard/tsd/pcbs/pubs/effects.htm>, updated June 13, 2003.

² ClearWater News and Bulletin- Fact Sheet 12, *What are the Human Health Effects of PCB's?* <http://www.clearwater.org/news/pcbhealth.html#refs>. Accessed August 15th, 2013.

³ *Id.*

medical expenses associated with the contamination. Ms. Morrison has resided at the 99 Water Street property since 2001. Since that time, she has been exposed to contamination on a daily basis. Every day from 2001 until the present day, Ms. Morrison has walked on soil and inhaled contaminants released from the soil containing PCB's and other heavy metals. More recently, on June 28, 2013, a significant flooding event occurred in Lockport, New York. As a result, Ms. Morrison's entire property was covered with a large volume of contaminated water. As a result, she will incur significant medical expenses associated with the monitoring and possibly treatment of contamination-related health problems. Absent compensation to affected residents for past, present and future injuries that have been caused by this disaster, the EPA's remedial plan will be inadequate.

2. The remedial plan fails to specify compliance with the Uniform Relocation and Real Property Acquisition Policies Act.

According to EPA's *Interim Policy of the Use of Permanent Relocations as Part of Superfund Remedial Actions*, all permanent relocations funded through CERCLA should be implemented in accordance with the Uniform Relocation and Real Property Acquisition Policies Act (URA), 24 USC §§ 4600-4655. The remedial plan includes the acquisition of affected residential properties and the relocation of residents in six Water Street homes. Though no dollar amount is presented in this plan, any amount offered to Ms. Morrison to purchase a comparable home in a contamination-free area must be in accordance with prevailing federal law and policy.

a. 42 USC § 4651 requires that the offer to purchase the affected property disregard any decrease in value caused by the "improvement."

While not specified in the remedial plan as presented, it would be improper under 42 U.S.C § 4651 for the EPA to purchase Ms. Morrison's home at the current "value", because the home has become essentially worthless as a result of EPA's publicizing the contamination. Ms. Morrison purchased her Water Street home prior to the damaging publicity, without knowing the extent of the contamination, and through no fault of her own, she is unable to sell this worthless property and move to new area. Unquestionably, the fair market value, if it is defined by comparable recent sales prices, has been drastically decreased because of the public's awareness of the contamination.

However, federal law requires that any decrease in value be disregarded. Specifically, 42 USC § 4651 provides:

Any decrease or increase in the fair market value of real property prior to the date of valuation caused by the public improvement for which such property is acquired, or by the likelihood that the property would be acquired for such improvement, other than that due to physical deterioration within the reasonable control of the owner, will be disregarded in determining the compensation for the property.

42 USC § 4651(a)(3) (emphasis added). The "public improvement" referred to in this section refers to the EPA's protection of the environment and area residents from the contamination. Part of this "public improvement" has been public reports and statements that the EPA has made,

following the purchase of Ms. Morrison's home, which have unquestionably dramatically reduced the comparable sales prices in the area. Thus, the EPA's offer to Ms. Morrison must exceed any valuation based on current market prices and be adjusted for the adverse publicity that has followed her purchase of this home.

b. 42 USC § 4622 requires that the relocation offer include moving and relocation expenses.

In addition to being paid the fair market value of the home that is adjusted in the manner described above, Ms. Morrison must be paid moving and relocation expenses. Specifically, she must be paid "actual reasonable expenses in moving [herself], [her] family, business, farm operation, or other personal property." 42 USC § 4622(a)(1). She also must be compensated for "actual direct losses of tangible personal property as a result of moving or discontinuing a business or farm operation..." 42 USC § 4622(a)(2). Thus, any relocation offer extended to Ms. Morrison must include actual expenses that will be incurred in moving to a comparable home and any losses of tangible personal property or other losses described in § 4622(a)(2).

c. 42 USC § 4623 requires that the relocation offer include costs that will be incurred in acquiring a comparable home.

Because Ms. Morrison has resided in her home since 2001, she must be paid additional amounts pursuant to 42 USC § 4623. Specifically, she must be paid the "amount, if any, which when added to the acquisition cost of the dwelling acquired by the displacing agency, equals the reasonable cost of a comparable replacement dwelling." 42 USC § 4623(a)(1)(A). She must also be paid the "amount, if any, which will compensate such displaced person for any increased interest costs and other debt service costs which such person is required to pay for financing the acquisition of any such comparable replacement dwelling." 42 USC § 4623(a)(1)(B).

Conclusion

For the reasons explained above, the EPA's remedial plan is deficient because it fails to account for the health consequences of the contamination and fails to specify that any offer will be made in accordance with 24 U.S.C. §§ 4600-4655. Ms. Morrison is entitled to just compensation for the purchase of her home and subsequent relocation, and any offer extended to her must address all costs and losses that she has incurred, or will incur, from this disaster. Accordingly, Ms. Morrison respectfully requests the amount of \$250,000.00 for the sale of their home and subsequent relocation.

Thank you for considering these comments on behalf of Ms. Morrison. Please contact the Law Offices of Roy L. Mason with any questions or concerns.

Very truly yours,

/s/ Roy L. Mason

Roy L. Mason
Dan Fligsten (NY Counsel)
Julie Kuspa

August 26 2013

Thomas Taccone
Remedial Project Manager
EPA Region 2
290 Broadway – 20th Floor
New York, NY 10007

Re: *Comments on behalf of Seanna Thomas, David Pettigrew II and minor child Liam Pettigrew, 90 Water Street, regarding Proposed Plan for Eighteen Mile Creek Remedial Actions*

Dear Mr. Taccone:

The Law Offices of Roy L. Mason, P.A., on behalf of its clients Seanna Thomas and David Pettigrew II, hereby submits the following comments to the Superfund Proposed Plan for the Eighteen Mile Creek Superfund Site in Niagara County, New York, that was announced in a report dated July 2013. While this remedial plan evidences an earnest attempt by the EPA to address this disaster, it fails in three crucial respects.

1. The remedial plan fails to address the health consequences of the contamination.

Ms. Thomas and Mr. Pettigrew, along with other residents of Water Street, have been exposed to dangerous levels of PCBs, lead, and other metals for over a decade. Continued exposure to the contamination has placed all of the Water Street residents at a high risk of developing cancer and other significant health problems. The International Agency for Research on Cancer, the National Toxicology Program, and the National Institute for Occupational Safety and Health, have all determined that PCBs are human carcinogens.¹ Studies of PCBs in humans found increased rates of melanomas, liver cancer, gall bladder cancer, biliary tract cancer, gastrointestinal tract cancer, and brain cancer and breast cancer.² In addition, women who are exposed to PCBs before or during their pregnancy run a higher risk of giving birth to a child who has significant neurological, motor, and memory problems.³ The results of EPA's own Human

¹ *Health Effects of PCB's* <http://www.epa.gov/osw/hazard/tsd/pcbs/pubs/effects.htm>, updated June 13, 2003.

² ClearWater News and Bulletin- Fact Sheet 12, *What are the Human Health Effects of PCB's?* <http://www.clearwater.org/news/pcbhealth.html#refs>. Accessed August 15th, 2013.

³ *Id.*

Health Risk Assessment stated that the contaminated soil presents an unacceptable risk to human health for the residents of Water Street.

Unfortunately, the remedial plan, as presented in the July 2013 report, does not provide affected residents, including Ms. Thomas and Mr. Pettigrew, with any compensation for past, present, or future medical expenses associated with the contamination. Ms. Thomas and Mr. Pettigrew have resided at the 90 Water Street property since 2011. Since that time, they have been exposed to contamination on a daily basis. Every day from 2011 until the present day, Ms. Thomas and Mr. Pettigrew have walked on soil and inhaled contaminants released from soil that contains PCB's and other heavy metals. As a result, Ms. Thomas, Mr. Pettigrew, and their minor child Liam Pettigrew will probably incur significant medical expenses associated with the monitoring and possibly treatment of contamination-related health problems. Absent compensation to affected residents for past, present and future injuries that have been caused by this disaster, the EPA's remedial plan will be inadequate.

2. The remedial plan fails to specify that it will include all Water Street residents that are proximately located to the contamination.

The remedial plan is unclear as to whether 90 Water Street is one of the homes that will be purchased and its residents relocated. Although this home is across the street from the Creek, it is also susceptible to a large amount of contamination as a result of flooding. In June 2013 the flooding and sewer blockage caused contaminated water to enter 90 Water Street. Upon information and belief, tests have shown that the 90 Water Street property is contaminated with, for example, lead. Ms. Thomas, Mr. Pettigrew and their small child are thus being exposed to even more unacceptable levels of contamination every day they remain in their home.

These residents have also been exposed to dangerous toxins and must to be relocated along with their neighbors. It would be inappropriate to relocate the homes across the street from 90 Water Street, while leaving these residents in a home that has no value because it is directly next to a hazardous waste site. The value of 90 Water Street has been entirely depleted along with the rest of the homes on Water Street, and the residents of 90 Water Street must be treated in the same manner as their neighbors.

3. The remedial plan fails to specify compliance with the Uniform Relocation and Real Property Acquisition Policies Act.

According to EPA's *Interim Policy of the Use of Permanent Relocations as Part of Superfund Remedial Actions*, all permanent relocations funded through CERCLA should be implemented in accordance with the Uniform Relocation and Real Property Acquisition Policies Act (URA), 24 USC §§ 4600-4655. The remedial plan includes the acquisition of affected residential properties and the relocation of residents in certain Water Street homes. Though no dollar amount is presented in this plan, any amount offered to Ms. Thomas and Mr. Pettigrew to purchase a comparable home in a contamination-free area must be in accordance with prevailing federal law and policy.

a. 42 USC § 4651 requires that the offer to purchase the affected property disregard any decrease in value caused by the “improvement.”

While not specified in the remedial plan as presented, it would be improper under 42 U.S.C § 4651 for the EPA to purchase Ms. Thomas and Mr. Pettigrew’s home at the current “value” because the home has become essentially worthless as a result of EPA’s publicizing the contamination. Ms. Thomas and Mr. Pettigrew purchased their Water Street home prior to of the damaging publicity, without knowing the extent of the contamination, and through no fault of their own, are unable to sell this worthless property and move to new area. Unquestionably, the fair market value, if defined by comparable recent sales prices, has been drastically deflated because of the public’s awareness of the contamination.

However, federal law requires that any decrease in value must be disregarded. Specifically, 42 USC § 4651 provides:

Any decrease or increase in the fair market value of real property prior to the date of valuation caused by the public improvement for which such property is acquired, or by the likelihood that the property would be acquired for such improvement, other than that due to physical deterioration within the reasonable control of the owner, will be disregarded in determining the compensation for the property.

42 USC § 4651(a)(3) (emphasis added). The “public improvement” mentioned in this section refers to the EPA’s protection of the environment and area residents. In this case, part of this “public improvement” has been the release of public reports and statements by the EPA, following the purchase of Ms. Thomas and Mr. Pettigrew’s home, which have dramatically reduced the comparable sales prices in the area. Thus, the EPA’s offer to Ms. Thomas and Mr. Pettigrew must exceed any valuation that is based on current market prices and be adjusted for the adverse publicity that has followed the purchase of this home.

b. 42 USC § 4622 requires that the relocation offer include moving and relocation expenses.

In addition to being paid the fair market value of the home that is adjusted in the manner described above, Ms. Thomas and Mr. Pettigrew must be paid moving and relocation expenses. Specifically, they must be paid “actual reasonable expenses in moving [themselves], [their] family, business, farm operation, or other personal property.” 42 USC § 4622(a)(1). They also must be compensated for “actual direct losses of tangible personal property as a result of moving or discontinuing a business or farm operation...” 42 USC § 4622(a)(2). Thus, any relocation offer extended to Ms. Thomas and Mr. Pettigrew must include actual expenses that will be incurred in moving to a comparable home and any losses of tangible personal property or other losses described in § 4622(a)(2).

c. 42 USC § 4623 requires that the relocation offer include costs that will be incurred in acquiring a comparable home.

Because Ms. Thomas and Mr. Pettigrew have resided in their home since 2011, they must be paid additional amounts pursuant to 42 USC § 4623. Specifically, they must be paid the “amount, if any, which when added to the acquisition cost of the dwelling acquired by the displacing agency, equals the reasonable cost of a comparable replacement dwelling.” 42 USC § 4623(a)(1)(A). They must also be paid the “amount, if any, which will compensate such displaced person for any increased interest costs and other debt service costs which such person is required to pay for financing the acquisition of any such comparable replacement dwelling.” 42 USC § 4623(a)(1)(B).

Conclusion

For the reasons explained above, the EPA’s remedial plan is deficient because it fails to account for the health consequences of the contamination, fails to specify that residents such as Ms. Thomas and Mr. Pettigrew will be included in the remedial plan, and fails to specify that any offer will be made in accordance with 24 U.S.C. §§ 4600-4655. Ms. Thomas and Mr. Pettigrew are entitled to just compensation for the purchase of their home and subsequent relocation, and any offer extended to them must address all costs and losses that they have incurred, or will incur, from this disaster. Accordingly, Ms. Thomas and Mr. Pettigrew respectfully request the amount of \$250,000.00 for the sale of their home and subsequent relocation.

Thank you for considering these comments on behalf of Ms. Thomas, Mr. Pettigrew, and their minor child Liam Pettigrew. Please contact the Law Offices of Roy L. Mason with any questions or concerns.

Very truly yours,

/s/ Roy L. Mason

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