



**Division of Environmental Remediation**

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**Record of Decision Amendment**  
**858 East Ferry Street Site**  
**City of Buffalo, Erie County, New York**  
**Site Number 9-15-175**

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**August 2005**

# **DECLARATION STATEMENT - RECORD OF DECISION AMENDMENT**

## **858 East Ferry Street Site Inactive Hazardous Waste Disposal Site City of Buffalo, Erie County, New York Site No. 9-15-175**

### **Statement of Purpose and Basis**

The Record of Decision Amendment (RODA) presents the selected remedy for the 858 East Ferry Street site, a Class 2 inactive hazardous waste disposal site. The selected remedial program was chosen in accordance with the New York State Environmental Conservation Law and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the 858 East Ferry Street inactive hazardous waste disposal site, and the public's input to the Proposed Record of Decision Amendment (RODA) presented by the NYSDEC. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the RODA.

### **Assessment of the Site**

Actual or threatened releases of hazardous waste constituents from this site, if not addressed by implementing the response action selected in this RODA, presents a current or potential significant threat to public health and/or the environment.

### **Description of Selected Remedy**

Based on the results of the Remedial Investigation, Pre-Design Investigation and the Focused Feasibility Study for the 858 East Ferry Street site and the criteria identified for evaluation of alternatives, the NYSDEC has selected an amended remedy to excavate contaminated soil from the site and disposal of the soil to a permitted landfill to achieve a cleanup goal protective for unrestricted future use of the site and to excavate contaminated soil from off-site properties and disposal of the soil to a permitted landfill to achieve a cleanup goal protective for industrial/commercial use consistent with current zoning and current use.

The components of the remedy are as follows:

- The contaminated soil from on- site will be excavated and staged. The soils will be excavated to achieve a clean up goal of 400 parts per million (ppm) of lead to provide unrestricted future use of the site.
- The contaminated soil from off-site properties will be excavated and staged. The soils will be excavated to achieve a clean up goal of 1,000 ppm of lead.
- The hazardous soils excavated from on-site and off-site properties will be stabilized at the site.

- All contaminated stabilized soils will be transported and disposed of in an off-site permitted landfill.
- All the excavated areas will be backfilled with clean fill and any contaminated surface soils will be used to the extent practicable to fill in the excavations prior to backfilling.
- A long-term groundwater monitoring program will be implemented to monitor the groundwater quality.
- Development of a Site Management Plan in which the City of Buffalo will certify periodically that the off-site properties remain zoned for industrial/commercial use.

**New York State Department of Health Acceptance**


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

**Declaration**

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

AUG 22 2005

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Date



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Dale A. Desnoyers, Director  
Division of Environmental Remediation

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# **RECORD OF DECISION AMENDMENT**

**858 East Ferry Street Site  
City of Buffalo, Erie County, New York  
Site No. 9-15-175  
July 2005**

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## **1.0 SUMMARY OF THE RECORD OF DECISION AMENDMENT**

On March 30, 1999, the New York State Department of Environmental Conservation signed a Record of Decision (ROD) which selected a remedy for the 858 East Ferry Street Site. The 1999 ROD called for the excavation and off-site disposal of contaminated soils from the on-site property. The ROD also stated that further investigation of the property west of the site will be conducted prior to the implementation of the remedy. An investigation was conducted in 2004 on the properties located west of the site. Based on the results of the recently completed investigation, the volume of the contaminated soil has increased from 3,575 cubic yards (cu. yds.) to a total of 87,200 cu.yds. for both on-site and off-site properties. Refer to table 1 for the details on the total volume of soils.

The results indicated that surface and sub-surface soil at the site and the adjacent properties are contaminated with lead. The concentration of lead in soil decreases further west but isolated areas of significant soil contamination were found in the areas west of the TNT Auto property. The soil contamination was found to extend up to the eastern side of 750 E. Ferry Street. The groundwater results indicate that the compounds found in groundwater did not exceed groundwater standards.

Based on the new results, the volume of contaminated soil is significantly larger than the volume initially estimated in the ROD. The amended remedy is to excavate the contaminated soil from on-site and disposal to a permitted landfill to achieve a clean up goal protective for unrestricted future use of the site and to excavate the contaminated soil from off-site properties and disposal to a permitted landfill to achieve a clean up protective for industrial/commercial use consistent with current zoning of the off-site properties. To address the increased volume of soil cost-effectively, it is proposed to stabilize the hazardous soils on-site prior to disposal to a permitted landfill.

The change in volume of contaminated soil, on-site treatment prior to off-site disposal and remediation for unrestricted future use represents a fundamental change in the remedy and therefore the NYSDEC is amending the 1999 ROD.

NYSDEC met with community representatives on November 23, 2004 and February 15, 2005 to present the results obtained from the recent investigation and review remedial options considered for the site. Based on the input from these meetings, the selected remedial alternative was developed and evaluated for implementation at the site. The amended remedy is based on the future planning proposed by the City of Buffalo, the current owner of the site, to transfer the

site for unrestricted future redevelopment. The amended off-site remedy will be protective of human health and the environment as long as the current zoning of these properties remain as industrial/commercial.

## **2.0 SITE LOCATION AND DESCRIPTION**

The site known as 858 East Ferry Street is located in the City of Buffalo. The irregularly shaped 3.32 acre site is owned by the City of Buffalo. The site is situated on the north side of East Ferry Street and is zoned as industrial. Refer to Figure 1. Historical maps indicate that Scajaquada Creek flows from east to west, bisecting the site in a sub-grade “covered drain”. Refer to Figure 2.

The site is bordered on the north by a New York Central Railroad embankment and industrial property occupied by International Extruded Products. The railroad embankment, Grider Street, and a small store are located to the east of the site. The True Bethel Baptist Church is located opposite of the site, on the south side of East Ferry Street. TNT Used Autos, a small used car lot, is located to the west of the site.

## **3.0 SITE HISTORY**

### **3.1 Operational/Disposal History**

Historic maps and photographs from the early 1900s suggest that the site has never been occupied by any type of building. However, surface and subsurface soil sampling showed that the property was used for the disposal of ash evidenced by the presence of two distinct ash beds. The ash layers also contained numerous glass bottles and ceramic fragments.

At the adjacent property to the west of 858 E. Ferry Street, now occupied by the used auto lot, the 1939 Sanborn map showed that a Michael Heyman Company operated a zinc and lead smelting and refining facility. Two buildings were once located on the Heyman property; the west building was the foundry and blast furnace, and the east building, nearest the 858 E. Ferry Street site, housed the metal casting facility. A 1958 aerial photo shows a path leading from the Heyman property to the central part of the East Ferry Street site. The location of the Heyman facility adjacent to the site and the path leading onto the site support the past disposal of lead-contaminated ash in this location.

### **3.2 Remedial History**

Under the Environmental Restoration Program (ERP), the City of Buffalo completed an investigation in 1997-1998. The results from this investigation showed significant contamination in soil. The groundwater contamination did not exceed groundwater standards. Based on the results of this investigation, a ROD was signed by NYSDEC in March 1999. The selected remedy included the excavation and off-site disposal of hazardous waste and contaminated soil. The ROD also stated that the remedy will be deferred until further investigation is conducted to the west of the site to define the extent of contamination and if so, the significance of the threat it poses to the public health and the environment.

An additional investigation was completed in 2001 by the NYSDEC at the adjacent property, TNT Auto lot. The results indicated that the soil is contaminated with lead on this property and the contamination extended to the west of the property line. Refer to table 2 for the project time-line.

#### **4.0 SUMMARY OF THE PRE-DESIGN INVESTIGATION**

As part of the Remedial Design, a pre-design investigation was conducted to better define the limits of soil contamination. This investigation included the area between East Ferry Street and the railroad tracks, from west of the TNT Auto property to the vicinity of 750 East Ferry Street and the large blue water tower.

The investigation included:

- installation of 114 soil borings on a 100-foot grid covering the entire area;
- testing over 360 surface and subsurface soil samples for lead;
- installation of 4 new off-site bedrock groundwater monitoring wells west of the site and, testing the new wells and the 4 existing wells to see if the groundwater is contaminated; and,
- a magnetic survey of the area to locate the Scajaquada Creek tunnel and buried objects such as old drums or underground storage tanks.

Refer to Figure 3 for the sampling locations.

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

The results from this investigation indicated that the highest concentrations (i.e., greater than 10,000 parts per million (ppm)) of lead contaminated soils in surface soil were reported in samples collected from the northern half of 856 East Ferry Street, and the central and western portion of 858 East Ferry Street. The area of lead contaminated soils above 1,000 ppm extends into the central and southern portion of the 856 East Ferry Street property, the central and north-central portion of the 858 East Ferry Street property, and also extends westward from the 856 East Ferry Street property.

The highest concentrations (i.e., greater than 10,000 ppm) of lead contaminated soils in subsurface were reported in samples collected from the central portion of the 858 East Ferry Street property, along the western edge of the northern portion of the 856 East Ferry Street property, and two isolated areas located near grid nodes 650N/600E and 550N/500E. The areas of lead contaminated soils above 1,000 ppm occurred near the central portion of the 858 East Ferry Street property, the northern two-thirds of the 856 East Ferry Street property, an area immediately adjacent to the western edge of the 856 East Ferry Street property, and several isolated areas north of the Scajaquada Creek Drain extending westward to the Buflovak property. The area of samples reporting lead concentrations above 400 ppm extends from the 858 East Ferry street property across the study area, generally north of the Scajaquada Creek Drain. Refer to Figure 4 for the results of the soil sampling done during the recent investigations.

Soil samples were selected for Toxicity Characteristics Leaching Procedure (TCLP) to determine if the contaminated soil exhibited the characteristics of hazardous waste. Based upon the TCLP results, contaminated soils with lead concentrations above 1,000 ppm or above exhibited hazardous characteristics. The cost estimation of the different remedial alternatives is based on this finding.

Based on the results of the investigation, the volume of contaminated soil is estimated at approximately 87,200 cubic yards (cu.yds.).

Additionally, the analytical results gathered as part of the pre-design investigation indicate that the fill materials in the study area do not appear to be leaching contaminants to groundwater at concentrations above Standards, Criteria and Guidance (SCGs). Refer to Figure 5 for the results from the groundwater sampling conducted during the recent investigations.

The results from the investigations conducted at the site are contained in the October 2004 Pre-Design Investigation Report.

## **5.0 DESCRIPTION OF ORIGINAL REMEDY AND PROPOSED CHANGES**

### **5.1 Original Remedy**

The remedy selected in the December 1999 ROD included the following components: 1) ash and soils which exhibit the TCLP characteristic of hazardous waste for lead, lead-contaminated (non-hazardous) soils with contaminant concentrations exceeding 1,000 ppm and PCB-contaminated soils exceeding 1 ppm at the surface and 10 ppm in the subsurface will be excavated and transported off site to permitted treatment and disposal facilities; 2) environmental easements will be placed on the property limiting the use of the site to commercial/industrial; 3) a long-term monitoring program will be implemented to determine the effectiveness of the remedy and further investigation of the property west of the site will be conducted to determine if hazardous waste is present and if so, the significance of the threat it poses to the public health and environment; and 4) implementation of this remedy will be deferred until the investigation of the adjacent property is completed and it is determined that this project is compatible with any remediation necessary for the adjacent property. All components of the design must be in conformance with the ROD, New York State laws, rules, regulations, and guidelines.

### **5.2 New Information**

The results from the investigation for surface and subsurface soil samples is summarized in Tables 3 and 4. The results indicated that surface and sub-surface soil at 858 E. Ferry Street and the adjacent TNT Auto property is contaminated with lead and is widespread on these properties. The contamination concentration in soil decreases towards the west but isolated areas of significant soil contamination were found in the areas west of the TNT Auto property. The soil contamination was found to extend up to the eastern side of 750 E. Ferry Street. The groundwater was not contaminated with site-related contaminants. Based on the new and existing results, the volume of contaminated soil is much larger than the volume initially estimated in the 1999 ROD.

As a result of the pre-design investigation, the volume of contaminated soil has increased to approximately 87,200 cu.yds. compared to 3,575 cu.yds. estimated in the 1999 ROD.

### **5.3 Proposed Changes**

The NYSDEC's Technical and Administrative Guidance Memorandum (TAGM) 4059 states that a ROD amendment shall be issued if there is fundamental change in the original remedy. Since the change in the volume of contaminated soil is significant, the ROD amendment has re-evaluated the remedial alternatives that were evaluated in the ROD with other potential alternatives. Based on this evaluation, a remedial alternative that is different from the recommended remedy in the 1999 ROD is selected. The details of the re-evaluation of the remedial alternatives is included in Section 4 of this document.

The following remedial alternatives were considered for re-evaluation:

#### **Alternative 1: No Action Baseline**

The no action alternative is evaluated as a procedural requirement and as a basis for comparison. This alternative will leave the site in its present condition and will not provide any additional protection to human health or the environment.

Present Worth	\$0	
Capital Cost	\$0	
Annual O&M	\$0	
O&M Present Cost	\$0	
Estimated Time to Completion		NA

#### **Alternative 2: Excavation of contaminated soils and disposal to an Off-Site facility**

This alternative will include the excavation of surface and subsurface soils on the 858 East Ferry Street property with lead concentrations exceeding the cleanup goal (industrial/commercial condition) of 1,000 ppm. Further, all off-site surface and subsurface soils with lead concentrations exceeding the concentration of 400 ppm will be excavated. It is estimated that 16,000 cubic yards of soils will be excavated from on-site and 127,000 cubic yards from off-site properties. All excavated soils will be transported and disposed of off-site at an appropriate treatment/disposal facility. Excavated areas will be backfilled with clean fill and graded to be congruent with the surrounding area. An environmental easement will be placed for the site to limit site development to industrial/commercial use. No restrictions will be necessary for off-site properties as this alternative will provide remediation and allow for unrestricted future use.

Present Worth	\$34,629,000
Capital Cost	\$34,327,000
Annual O&M	\$19,645
O&M Present Cost	\$302,000

Estimated Time to Completion 1 year

**Alternative 3: Excavation of contaminated soils from off-site properties and on-site consolidation**

This alternative will include the excavation of off-site shallow soils with lead concentrations exceeding 1,000 ppm and subsurface soils with lead concentrations exceeding 10,000 ppm. It is estimated that 10,000 cubic yards of soil will be excavated from off-site properties. This material will be consolidated within the 858 East Ferry Street property with the exception of PCB-contaminated material that will be disposed of off-site at a permitted hazardous waste landfill.

Consolidated soils within the property boundary of 858 E. Ferry Street will be graded and covered with an asphalt cover. The anticipated maximum increased elevation at the center of the site will be between 3 to 4 feet, tapering to existing grade at the perimeter. The excavated areas will be backfilled with clean fill and graded to be congruent with the surrounding area.

Institutional controls include an environmental easement on-site limiting site development to industrial/commercial use. To assess potential groundwater contamination, groundwater monitoring will utilize existing groundwater monitoring wells and sampling for the PAHs and metals parameters.

Present Worth	\$1,605,000
Capital Cost	\$1,309,000
Annual O&M	\$19,231
O&M Present Cost	\$296,000
Estimated Time to Completion	1 year

**Alternative 4: Excavation of all contaminated soils and on-site soil washing treatment**

This alternative will include the excavation of surface and subsurface soils on the 858 East Ferry Street property with lead concentrations exceeding the cleanup goal of 1,000 ppm. Further, all off-site surface and subsurface soils with lead concentrations exceeding the concentration of 400 ppm will be excavated. It is estimated that approximately 15,800 cubic yards of soils will be excavated from on-site and 127,000 cubic yards of soil from off-site properties. An estimated 33 cubic yards of PCB-contaminated soil will also be excavated and disposed of in an off-site facility. Once excavated, lead-contaminated soil will then be treated on-site using a soil washing process. The excavated areas will be backfilled with treated soil and graded to be congruent with the surrounding area with proper drainage controls. Off-site soils will be treated to 400 ppm; on-site soils will be treated to 1,000 ppm. During the design phase, bench and/or pilot test studies will be necessary to determine an appropriate soil washing process stream for contaminants present at the site, and the feasibility of an onsite wastewater treatment unit.

Required institutional controls include an environmental easement limiting site development to industrial/commercial use for the 858 East Ferry Street property. No deed restrictions will be necessary for off-site properties.

Present Worth	\$49,166,000
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Capital Cost	\$48,864,000
Annual O&M	\$19,645
O&M Present Cost	\$302,000
Estimated Time to Completion	2 years

**Alternative 5: Excavation of contaminated soils from off-site properties and partial consolidation on-site and partial disposal to off-site landfill**

This alternative will include the excavation of contaminated soils above 400 ppm lead from off-site properties. All the hazardous soils excavated will be stabilized on-site and disposed in a permitted landfill. Part of the non-hazardous soils excavated will be consolidated at the site and the remainder of the soils will be disposed off-site. On-site soils will not be excavated, instead soils from off-site properties will be consolidated on the site and an appropriate cover system will be placed on the consolidated soils.

Required institutional controls include an environmental easement limiting site development to industrial/commercial use for the 858 East Ferry Street property. No restrictions will be necessary for off-site properties.

Present Worth	\$12,552,000
Capital Cost	\$12,256,000
Annual O&M	\$19,231
O&M Present Cost	\$296,000
Estimated Time to Completion	1 year

**Alternative 6: Excavation of contaminated soils and disposal to an off-site permitted landfill**

This alternative will include the excavation of surface and subsurface soils on the 858 East Ferry St. property with lead concentrations exceeding the cleanup goal of 400 ppm. Further, all off-site surface and subsurface soils with lead concentrations exceeding the concentration of 1,000 ppm will be excavated. It is estimated that 34,200 cubic yards of soils will be excavated from on-site and 53,000 cubic yards from off-site properties. All soils excavated will be stabilized on-site prior to disposal. All excavated soils will be transported and disposed of off-site at an appropriate disposal facility. An estimated 33 cubic yards of PCB-contaminated soil will also be excavated and disposed of in an off-site landfill. Excavated areas will be backfilled with clean fill and graded to be congruent with the surrounding area. No restrictions will be necessary for the site as this alternative will allow for unrestricted future use.

Present Worth	\$9,495,000	Annual O&M	\$18,377
Capital Cost	\$9,212,000	O&M Present Cost	\$283,000
Estimated Time to Completion	1 year		

**6.0 EVALUATION OF PROPOSED CHANGES**

**6.1 Remedial Goals**

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR 375-1.10. These goals are established under the guideline of meeting all standards, criteria, and guidance (SCGs) and protecting human health and the environment.

At a minimum, the remedy selected should eliminate or mitigate all significant threats to public health and to the environment at the site through the proper application of scientific and engineering principles.

The goals selected for this site are:

- Eliminate to the extent practicable, the contamination present within the soils on site and off-site.
- Eliminate the potential for direct human or animal contact with contaminated soils on-site and off-site that present significant threats.

In addition to this, another goal is to make the site useful for unrestricted future use. This is based on the input from the local community representatives. The amended remedy is based on the future planning proposed by the City of Buffalo, the current owner of the site, to transfer the site for unrestricted future redevelopment. The amended off-site remedy will be protective of human health and the environment as long as the current zoning of these properties remain as industrial/commercial.

## **6.2 Evaluation of Remedial Alternatives**

The criteria used to compare the remedial alternatives are defined in the regulation that directs the remediation of inactive hazardous waste sites in New York State (6 NYCRR Part 375). For each criterion, a brief description is provided. A detailed discussion of the evaluation criteria and comparative analysis is contained in the Focused Feasibility Study Report.

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

**1. Protection of Human Health and the Environment.** This criterion is an overall evaluation of the health and environmental impacts to assess whether each alternative is protective. It incorporates several of the criteria listed below with an emphasis on achieving the remediation goals described above.

Alternative 1 will not be protective of human health and the environment. Alternatives 3 and 5 will comply with this criterion but to a much lesser degree than Alternatives 2, 4 and 6 because contaminated soil will remain at the site. Alternatives 2, 4 and 6 will be protective of human health and the environment and will be more effective than other alternatives because the source of contamination will be removed from the site and off-site properties.

**2. Compliance with New York State Standards, Criteria, and Guidance (SCGs).** Compliance with SCGs addresses whether a remedy will meet applicable environmental laws, regulations, standards, and guidance.

The major SCGs applicable for this site include groundwater quality standards in 6 NYCRR Part 703, NYSDEC guidance for soil clean up goals (Technical and Administrative Guidance Memorandum (TAGM) No. 4046) and land disposal regulations.

Alternative 1 will not meet SCGs. Alternatives 3 and 5 will not meet the SCGs for soil but will prevent exposures by containing the contaminated soil under a cover and will mitigate the further migration of contamination from soil into the groundwater. Alternatives 2 and 6 will have the highest level of compliance with soil SCGs because it includes direct removal compared to Alternative 4 which has some level of uncertainty on the effectiveness of the treatment system. Alternative 4 will also take longer than Alternatives 2 and 6 to achieve the SCGs.

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

**3. Short-term Effectiveness.** The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during construction and operation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared with the other alternatives.

There will be no short-term impacts, under Alternative 1, because there will be no construction activities. Alternatives 2, 4 and 6 will pose greater short-term impacts compared to Alternatives 3 and 5 because more contaminated soils will be excavated and transported than under Alternatives 3 and 5. A site-specific health and safety plan that will include engineering controls such as air monitoring and dust suppression measures will be implemented to protect the workers and the community.

Alternative 1 will not have any short-term effectiveness. Alternatives 2, 3, 5 and 6 will require less time to achieve soil cleanup goals compared to Alternative 4 since the soils will need treatment under Alternative 4.

**4. Long-term Effectiveness and Permanence.** This criterion evaluates the long-term effectiveness of alternatives after implementation of the response actions. If wastes or treated residuals remain on site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the controls intended to limit the risk, and 3) the reliability of these controls.

Alternative 1 has no long-term effectiveness because all the contaminated soil will remain on-site and risks will not change. Under Alternatives 3 and 5, long-term effectiveness for soil will be dependent upon maintaining the cover system placed on the consolidated soils. Alternatives 2 and 6 will have greater long-term effectiveness compared to Alternative 4 due to the complete removal of contaminated soil from the site and the better performance of excavation over the treatment system.

**5. Reduction of Toxicity, Mobility or Volume.** Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

Alternative 1 will not reduce toxicity, mobility, or volume. Under Alternatives 3 and 5 the mobility of the contamination in soil will be controlled but not toxicity or volume. The soil removal under Alternatives 2 and 4 will effectively reduce toxicity, mobility and volume. The soil treatment under Alternative 4 will reduce toxicity, mobility and volume but to a lesser degree compared to Alternatives 2 and 6. This is because the treatment system will have some level of uncertainty in effectively removing the contaminants from the soil.

**6. Implementability.** The technical and administrative feasibility of implementing each alternative is evaluated. Technically, this includes the difficulties associated with the construction, the reliability of the technology, and the ability to monitor the effectiveness of the remedy. Administratively, the availability of the necessary personnel and equipment is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, etc.

Alternative 1 will be easiest to implement since no construction is involved. Alternatives 2, 3, 5 and 6 will involve more construction activities but will be technically implementable with many experienced contractors available. Alternative 4 will also involve excavation activities, but the implementability and the effectiveness of the treatment system will depend on the outcome of the pilot study.

**7. Cost.** Capital and operation and maintenance costs are estimated for each alternative and compared on a present worth basis. Although cost is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the remaining criteria, cost effectiveness can be used as the basis for the final decision.

The following is the estimated total cost of each alternative:

Alternative 1	\$0
Alternative 2	\$ 35 million
Alternative 3	\$ 1.6 million
Alternative 4	\$ 50 million
Alternative 5	\$ 16 million
Alternative 6	\$ 9.5 million

Please note that the estimated total cost of the remedy recommended in the 1999 ROD was approximately \$ 1.3 million.

**This final criterion is considered a modifying criterion and is considered after evaluating those above. It is focused upon after public comments on the proposed ROD amendment have been received.**

**8. Community Acceptance** - Concerns of the community regarding the proposed changes have been evaluated. The responsiveness summary (Appendix A) presents the public comments received and the manner in which the NYSDEC addressed the concerns raised. In general, the public

comment received during the public meeting held on June 27, 2005 were supportive of the selected remedy.

## **7.0 SUMMARY OF THE SELECTED REMEDY**

Based upon the results of the pre-design investigation and the focused feasibility study report, and the evaluation presented in Section 4, the NYSDEC is selecting Alternative 6 as the amended remedy for this site. The major components of the amended remedy include excavation of contaminated soils with lead concentration above 400 ppm from on-site and disposal to an off-site landfill. The amended remedy is based on the future planning proposed by the City of Buffalo, the current owner of the site, to transfer the site for unrestricted future redevelopment. To achieve this goal, the site will be remediated for unrestricted future use by removing the contaminated soil to achieve a clean up goal of 400 ppm of lead. Another major component of the remedy includes the excavation of contaminated soils with lead concentration above 1000 ppm from the off-site properties and disposal to an off-site landfill consistent with the current industrial use and zoning. All excavated soils exhibiting TCLP hazardous waste characteristics will be stabilized on-site prior to disposal in a landfill. Since the current zoning of the off-site properties is industrial/commercial, the amended remedy will be protective of human health and the environment as long as the current zoning of these properties remain as industrial/commercial.

This selection is based on the evaluation of the five alternatives developed for this site. With the exception of Alternative 1, each of the alternatives will comply with the threshold criteria. In addition, all five alternatives will comply with the balancing criteria but the level of compliance varies for each alternative. The major differences between the five alternatives are overall effectiveness and cost. Essentially, Alternatives 2 and 6 provide the greatest certainty of achieving the remediation goals for the site but Alternative 6 is cost-effective compared to Alternative 2.

Alternative 3 is the lowest in cost compared to Alternatives 2, 4, 5 and 6 but the soil cleanup goals will be achieved to a much lesser extent under Alternative 3. Alternatives 2 and 6 are the only alternatives that will remove the source of contamination from on-site and off-site properties. Alternative 6 will provide for the removal of the soil at the site for future unrestricted use and removal of soil from off-site properties for industrial/commercial use consistent with the current zoning of these properties. It is also lower in cost compared to Alternatives 2, 4 and 5.

The estimated present worth cost to implement the amended remedy is \$9,495,000. The cost to construct the remedy is estimated to be \$9,212,000 and the estimated present worth cost of operation and maintenance is \$283,000.

The NYSDEC is amending the 1999 ROD for the East Ferry Street Site. The following are the changes:

- the volume of the contaminated soil increased from 3,600 cu.yds. estimated in the 1999 ROD to 87,200 cu.yds. based on the data obtained from the pre-design investigation.

- soils from on-site will be excavated to achieve a clean up goal of 400 ppm of lead compared to 1000 ppm of lead established in the 1999 ROD. This will be protective of unrestricted future use of the site;

- the 1999 ROD did not have the information and data for the off-site properties and therefore did not include the removal of soil from off-site properties. The amended remedy will include the removal of soils from the off-site properties to a clean up goal of 1000 ppm and disposal to an off-site landfill. This is consistent with the current zoning and use of the off-site properties.

- the hazardous soils excavated will be stabilized at the site prior to disposal to an off-site landfill instead of disposing the soils as hazardous soils in a hazardous waste landfill as indicated in the 1999 ROD.

The elements of the amended remedy are as follows:

1. A remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation and maintenance, and monitoring of the remedial program.
2. The contaminated soil from the site will be excavated and staged. The soils will be excavated to a clean up goal of 400 ppm of lead.
3. The contaminated soil from off-site properties will be excavated and staged. The soils will be excavated to a clean up goal of 1,000 ppm of lead.
4. The hazardous soils excavated from the site and off-site properties will be stabilized at the site.
5. All contaminated and stabilized soils will be transported and disposed of in an off-site landfill.
6. All the excavated areas will be backfilled with clean fill.
7. A long-term groundwater monitoring program will be implemented to monitor the groundwater quality.
8. Development of a Site Management Plan in which the City of Buffalo will certify that the off-site properties remain zoned for industrial/commercial use.

## **8.0 Highlights Of Community Participation**

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

- Repository for documents pertaining to the site was established.
- A public contact list, which included nearby property owners, elected officials, local media and other interested parties, was established.
- A fact sheet was mailed in March 2004 providing the information on the additional investigations to be conducted off-site.
- A meeting was held with the community representatives on November, 2004 to discuss the remedial alternatives evaluated for the site.
- A meeting was held with the community representatives on February, 2004 to discuss the proposed amended remedy for the site.
- A fact sheet and a public meeting notice was mailed in June 2005 providing the results of the investigation and the proposed amended remedy for the site.
- A public meeting was held on June 29, 2005 to present and receive comments on the proposed amended remedy.
- A responsiveness summary (Appendix A) was prepared to address the comments received during the public meeting held on June 29, 2005.

# **APPENDIX A**

## **Responsiveness Summary**

# RESPONSIVENESS SUMMARY

**858 East Ferry Street Site  
City of Buffalo, Erie County, New York  
Site No. 9-15-175**

The proposed Record of Decision Amendment (RODA) for the 858 East Ferry Street site, was prepared by the New York State Department of Environmental Conservation (NYSDEC) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on June 14, 2005. The RODA outlined the remedial measure proposed for the contaminated soil at the 858 East Ferry Street site.

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

A public meeting was held on June 29, 2005 which included a presentation of the Pre-Design Investigation and Focused Feasibility Study as well as a discussion of the amended remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the amended remedy. These comments have become part of the Administrative Record for this site. No written comments were received during the public comment period. The public comment period for the RODA ended on July 20, 2005.

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

1. Question: What type of dust suppression techniques will be used during construction? What type of monitoring will be conducted during construction, in particular, after hours?

Response: The following techniques are generally applied to control dust: Applying water on haul roads, wetting equipment and excavation faces, spraying water on buckets during excavation and dumping, hauling materials in properly tarped or watertight containers, restricting vehicle speeds to 10 mph, covering excavated areas and material after excavation activity ceases, reducing the excavation size and/or number of excavations.

Two types of monitoring will be conducted during construction. Continuous real time air monitoring at the perimeter of the site and the work zone with hand held instruments for dust particles. This type of monitoring will measure air quality on a continuous basis. Another type of air monitoring will be conducted with monitoring stations located at four corners of the site to collect dust samples. The samples obtained will be analyzed on a weekly basis for lead.

After hours when activities have ceased for the day, all piles of staged soils will be covered with tarps or other appropriate material and all excavations will be covered with tarps or clean fill.

2. Question: How do you determine the level of competence of the contractors hired to do the work?

Response: In order to be considered responsible, a Bidder must established to the complete satisfaction of the NYSDEC and the Project Engineer, at a minimum, that it has adequate and satisfactory experience and financial resources to meet the obligations under the Contract and award of the Contract would be in the best interest of the State. A Bidder's prior experience shall be considered satisfactory when its performance of prior work was timely, of good quality, in compliance with any contract requirements including contracted costs and schedule, and in compliance with applicable law. The Bidder must have a minimum of three (3) years satisfactory experience in construction of the work to be performed.

3. Question: What oversight will be in place? Will the NYSDEC have a person on-site? Who will be the contact person?

Response: The construction activities will be overseen by a consultant under contract with the NYSDEC. The NYSDEC construction project manager and the regional office construction inspector will oversee the construction activities periodically and will participate in all meetings. For day-to-day activities, the oversight consultant's on-site engineer or the NYSDEC Region 9 inspector should be contacted at 716-851-7220. Issues or concerns which cannot be addressed by these two should be addressed to Jeff Trad, the NYSDEC project manager for construction. He can be reached at 518-402-9812.

4. Question: How do the public/community get contacted and what are the notification procedures? Will the community be notified if there are any changes in the work?

Response: The community will be contacted of the status of construction activities and any changes in the work through periodic mailings and e-mails to the community representatives. Under the Technical Assistance Grant program, the Lupus Coalition is preparing to apply for a grant. If the grant application is approved, the grant may be utilized to procure an environmental consultant to help the coalition and the community to obtain detailed information about this project. We will include the consultant in our mailing list for all the updates on the construction activities and share final results of sampling with the consultant as they become available.

5. Question: Do you have experience in doing this type of cleanup and on-site monitoring in proximity to such a community and church?

Response: Yes, we do have experience in doing the remediation work similar to the East Ferry Street project.

6. Question: Can you use the church sign and incorporate phone numbers and real names on the sign?

Response: There will be a sign at the field trailer in a visible location with names of contact personnel and telephone numbers. We are also looking into how we can get information to the community to make the sampling results more readily available. The use of the NYSDEC internet web pages and the Technical Assistance Grant consultant may be alternatives which can be used to provide timely information to the community.

7. Question: Since a railroad track is located adjacent to the site, is it possible to use the trains to transport soil instead of trucks? This will minimize the generation of dust. Will the train cars be capped or covered?

Response: The NYSDEC will evaluate the possibility of utilizing the railroad for transporting the soil and make contractors aware of this possibility at the mandatory pre-bid meeting. The contractor has the final responsibility of determining the means and methods of transporting the soil from the site to an off-site landfill. All soil will be covered during transport, whether by train or truck.

8. Question: How long will it take to complete this removal? How many truck loads will it take to transport all the soil?

Response: The entire construction activities for this project should be completed in approximately 12 months. A better estimate of the duration of this project will be calculated during the design. The number of truck loads is approximately 34 truck loads per day based on an average load of 22.5 tons. That is approximately 5800 truckloads over the entire project.

9. Question: What is the future use of the site? Do you have assurances from the City of Buffalo that they'll keep the property zoned industrial as industrial and not build residential homes on industrial sites?

Response: The site, 858 East Ferry Street, will be cleaned for unrestricted future use. The NYSDEC received a letter from the City of Buffalo stating that the site will potentially be developed to a use that is most beneficial to the City and the residents. The NYSDEC will request that the City submit, on a periodic basis, a certification that will state that the off-site properties, zoned as industrial/commercial, have not changed.

10. Question: What is the lead cleanup level in soil for residential and commercial use? What are the differences between these two levels? How long did the State take to complete the investigation of the site?

Response: 400 ppm of lead is the cleanup goal for residential use and 1000 ppm is the cleanup goal for industrial/commercial use. The difference, according to the USEPA, is the residential properties are defined as any area with high accessibility to sensitive

populations. The USEPA also defines sensitive populations as young children (those under 7 years of age) and pregnant women.

Typically, the investigation at a hazardous waste site might take approximately 12 to 15 months. Since soil contamination was also found on several off-site properties it was necessary to do additional investigations in order to define the extent of contamination. This took more time to complete than normally would be required for a remedial investigation. The offsite investigation began in March 2004 and was completed in October 2004.

11. Question: Why is the State not planning to clean up the adjacent TNT Auto property to the same level as the site? What is the level of contamination at the TNT Auto property?

Response: Please refer to questions 9 and 10 and the responses. Since the TNT Auto property is currently zoned as industrial/commercial, the cleanup level proposed is the level for industrial/commercial use. The investigation results indicated that lead concentration as high as 48,400 parts per million in subsurface soils was found at the TNT property. For more details, please refer to the investigation report available at the public repository.

The City of Buffalo who owns the on-site property has committed to using the site in a manner which would require unrestricted use. Additionally, a letter was mailed to the offsite property owners advising them of the contamination on their property and to take necessary precautions during any intrusive soil removal or excavation activities.

12. Question: How will you prevent the dirt from tracking through the community when it rains or when tires track dirt through the community?

Response: Please refer to question 1 and the response. The plans and specifications require that a Work and Waste Handling Plan be developed by the contractor. It will detail how waste is excavated, handled, treated, loaded and decontaminated from equipment. This plan must be submitted to the Department and approved before work can begin.

13. Question: Is the decontamination pad for trucks part of your plan?

Response: The decontamination for trucks and field equipment will be part of the Work and Waste Handling Plan described in Question 12.

14. Question: Can you guarantee that African American contractors will be used for this cleanup project? Do you know the exact numbers or percentages of African American contractors that you would use?

Response: Per the Minority Business/Women Business Enterprise (MBE/WBE) Program, each county in New York State has utilization goals for MBE/WBE as well as Equal Employment Opportunity (EEO) goals. For Erie County, the current utilization goals are 6% for MBE and 6% for WBE and EEO goals of 10%. The selected contractor is required to make good faith efforts to satisfy these goals. The NYSDEC requires the contractor to provide quarterly reports on MBE/WBE and EEO attainment and audits compliance to insure the goals are attained.

15. Question: Will part of the work site be covered with a tent? Will you be working on the whole site all at once?

Response: The work site will not be covered with a temporary structure or tent because the dust generated during the construction activities will be controlled. Please refer to Question 1 and response for details. The construction activities will be conducted in one or two areas of the site simultaneously. The size and location of the areas will be determined during the design of this project.

16. Question: Where will the soil be transported? Do you require or carry special insurance on trucks carrying this hazardous waste/dust if there's an accident or some type of exposure?

Response: The contaminated soils would be transported to an appropriate off-site facility. The selected contractor will have the responsibility of determining the location of the landfill. The contractor is required to carry the following insurances: General Liability Insurance of \$1 million, Comprehensive Business Auto Insurance of \$1 million, Workers Comprehensive Insurance, Employers Liability and Disability Insurance, Workers Protective Liability Insurance of \$1 million, Pollution Liability Insurance of \$1 million, Errors and Omissions Insurance of \$1 million. Additional Pollution Liability Insurance of \$4 million must be carried by the contractor.

17. Question: How do you certify that the backfill material is clean? What are the sources of the backfill material?

Response: The selected contractor has to obtain prior approval from NYSDEC for the source for the backfill material. A representative sample of the backfill material will be analyzed in a laboratory for the comprehensive Target Compound List/Target Analyte List (TCL/TAL) to make sure the material meets NYDEC requirements.

18. Question: How long will the groundwater be monitored?

Response: Based on the available data from the investigation, the groundwater at the site is not contaminated. After the completion of the clean up at the site, the groundwater will be monitored for five years to verify there is no change in the groundwater quality

because of the clean up activities. An evaluation will be done after five years to determine if monitoring should continue.

19. Question: There is a creek that runs through the property. Will it be covered or sheltered so it won't be contaminated during the clean up? Will you check and make sure it is contained and no contamination would get inside?

Response: The Scajaquada Creek flowing from east to west bisects the subsurface area of the site and off-site properties. The Creek is contained within a concrete drain measuring 33.3 feet wide and 15 feet high and this drain line will remain in place during remediation. The floor of the drain is situated at the top of the bedrock. The potential for contamination from soil or groundwater migrating to the Creek during construction is very minimal. Necessary precautions will be taken during construction to prevent the migration of contamination from the site into the Creek.

# **APPENDIX B**

## **Administrative Record**

# **Administrative Record**

## **858 East Ferry Street Site**

### **Site No. 9-15-175**

1. Ecology and Environment, Inc., 1998. Phase II Environmental Site Investigation, Site No. 9-15-175, 858 East Ferry Street, Buffalo, New York.
2. NYSDEC, March 1999. Environmental Restoration Record of Decision, 858 East Ferry Street Site, City of Buffalo, Erie County, Site Number B-00007-9.
3. Watts Engineers, June 2001. Phase II Field Investigation and Site Assessment Report for Youth Detention Facility, 810 East Ferry Street and 1 Junction Railroad, Buffalo, New York.
4. Watts Engineers, June 2001. Phase II Field Investigation and Site Assessment Report for 750 East Ferry Street, Buffalo, New York.
5. G2 Consulting Group, November 2001. Report on Phase II Environmental Site Assessment, Sprint Site BU54XC520B Hale Northeastern, 828 East Ferry Street, Buffalo, New York.
6. NYSDEC, February 2002. TNT Auto, Buffalo (C), Erie County, Report on Activities, Immediate Investigative Work Assignment (IIWA), Work Assignment #D003821-22.
7. Clough Harbour and Associates, April 2002. Phase II Environmental Site Assessment, East Ferry Street Communications Facility, 812 East Ferry Street, Buffalo, New York 14211.
8. URS Corporation, April 2003. Surface Soil Sampling for the Property Extension to the East Ferry Street Youth Detention Facility.
9. Geomatrix, April 2004. Geophysical Survey Results, East Ferry Street Site, Buffalo, NY.
10. URS Corporation, October 2004. Pre-Design Investigation Report.
11. Letter from Vivek Nattanmai, NYSDEC to off-site property owners regarding the use of their property prior to clean up. December 15, 2004.
12. Letter from Timothy E. Wanamaker, City of Buffalo to Gerald Mikol, NYSDEC regarding the potential future use of 858 East Ferry Street, the Site. April 5, 2005.

13. Letter from Vivek Nattanmai, NYSDEC to the community representatives regarding the current status of the site with a copy of the April 5, 2005 letter from the City of Buffalo. April 20, 2005.
14. Proposed Record of Decision Amendment for the 858 East Ferry Street site, dated June 2005, prepared by the NYSDEC.

Table 1  
858 East Ferry Street Site  
Site No. 915175

Property	Lead Concentration (mg/kg)	400 mg/kg and above	1000 mg/kg and above	10,000 mg/kg and above	Total volume included in the ROD amendment
858 East Ferry Street	Volume (cubic yards)	34,224	15836	3170	34,224
All off-site properties in study area	Volume (cubic yards)	127,139	53,030	2081	53,030
Total volume of soil to be excavated in cubic yards					87,254

Note:

For estimation purposes and based on the available data, soils with a lead concentration of 1000 mg/kg or ppm and above is considered as hazardous waste.

Table 2

858 East Ferry Street Site  
Site No. 915175  
PROJECT TIME-LINE

Early to mid 1900s	Michael Heyman Company operated a lead smelting facility at the TNT auto property.
1997 thru 1998	City of Buffalo conducted a remedial investigation at the site under the Environmental Restoration program.
March 1999	The Department completed a Record of Decision (ROD) for the site.
February 2000	The site was included as Class 2 Site in the Department's registry of inactive hazardous waste sites. A Class 2 site is a site where hazardous waste presents a significant threat to the public health or the environment and action is required.
2001	The Department completed additional investigation at the adjacent TNT auto property.
2001 thru 2004	The project was on hold due to lack of funds.
2004 thru current	A pre-design investigation to define the extent of contamination is completed. A ROD amendment is in progress.

**TABLE 3  
SURFACE SOIL ANALYTICAL RESULTS**

<b>CLASS</b>	<b>CONTAMINANT OF CONCERN</b>	<b>CONCENTRATION RANGE (ppm)</b>	<b>BACKGROUND CONCENTRATION SAMPLE SS-14 (ppm)</b>	<b>FREQUENCY EXCEEDING SCGs</b>	<b>SCG (ppm)</b>
VOLATILE ORGANIC COMPOUNDS	NONE				
SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)	Benzo(a)anthracene	.057-18	2.4	23/27	0.224
	Benzo(a)pyrene	.074-19	2.1	24/27	0.061
	Benzo(b)fluoranthene	.048-38	3.5	9/27	1.1
	Benzo(k)fluoranthene	.048-4.7	nd	3/27	1.1
	Bis(2-Ethylhexyl)phthalate	0.081-86	1.8	1/26	50
	Chrysene	.067-17	2.5	17/27	0.4
	Dibenz(a,h)anthracene	.086-6.1	0.64	23/27	0.014
	Indeno(1,2,3-cd)pyrene	.063-12	1.2	2/27	3.2
PCBs PESTICIDES	Heptachlor epoxide	0.004 - 0.19	0.12	3/19	0.02
	PCBs	43	Not Detected	1/19	1
INORGANICS	Antimony	1.6-1,190	5.5	19/31	5.5
	Arsenic	5-77.9	5.6	27/31	7.5
	Cadmium	0.03-11.5	Not Detected	26/31	1
	Copper	19.9-2,220	50.2	21/31	50.2
	Lead	11-95,100	248	87/157	248
	Magnesium	233-77,300	19,800	12/31	19,800
	Mercury	0.13-13.2	0.33	19/31	0.33
	Selenium	0.97-7.2	1.8	14/31	1.8
	Zinc	82.2-7,720	191	24/31	191

SCG values are obtained from the TAGM 4046

**Table 4**  
**SUBSURFACE SOIL ANALYTICAL RESULTS**  
**858 East Ferry Street Property**

<b>CLASS</b>	<b>CONTAMINANT OF CONCERN</b>	<b>CONCENTRATION RANGE (ppm)</b>	<b>BACKGROUND CONCENTRATION SAMPLE SS-14 (ppm)</b>	<b>FREQUENCY EXCEEDING SCGs</b>	<b>SCG (ppm)</b>
VOLATILE ORGANIC COMPOUNDS (VOCs)	NONE				
SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)	Benzo(a)anthracene	0.13-22,600	2.4	10/17	0.224
	Benzo(a)pyrene	0.099-24,000	2.1	13/17	0.061
	Benzo(b)fluoranthene	0.12-15,000	3.5	5/17	1.1
	Benzo(k)fluoranthene	0.079-13,600	ND	11/17	1.1
	Chrysene	0.15-22,900	2.5	10/17	0.4
	Dibenz(a,h)anthracene	0.092-5,430	0.64	9/17	0.014
PCBs PESTICIDES	NONE				
INORGANICS	Antimony	0.56-1,800	5.5	17/36	5.5
	Arsenic	2.8-97.3	5.6	31/36	5.6
	Barium	0.27-1.6	65.3	11/36	300
	Cadmium	0.19-14.5	Not Detected	18/36	1
	Copper	15-9,650	50.2	31/36	25
	Lead	3.7-84,000	248	113/281	248
	Magnesium	93.2-37,900	19,800	3/36	19,800
	Mercury	0.024-12.5	0.33	24/36	0.1
	Selenium	0.55-19	1.8	18/36	1.8
	Silver	0.29-3.7	Not Detected	1/36	0.52
	Zinc	51.4-20,700	191	26/36	191

SCG values are obtained from TAGM 4046