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**Date:** 9/9/2010 4:11 PM  
**Subject:** DSA-1, Soil Management Plan, Utica Harbor with Appendices A, B and Figure 1-1  
**Attachments:** Revised SMP.doc; Appendix A - Utica Harbor (Consent Order).pdf; Appendix B - Settlement Agreement (as Amended).PDF; Figure 1-1.pdf

John,

As you may know, Gary Johnston retired from State service effective August 30th. You can contact me directly regarding any future Utica Harbor issues. I will be able either to answer your questions or get back to you with an appropriate contact as we move forward. Attached is the soil management plan and its attachments for Utica Harbor's DSA-1. This is a final plan with your comments incorporated into the document. Malcolm Pirnie, Inc.'s contract with the Authority has expired on August 30, 2010. The revised plan is attached for your use. Appendices A, B and Figure 1-1 are included in this transmittal with the other appendices being sent in three additional separate e-mails as some of these are larger documents. Please advise if you do not receive 4 e-mails which would include this one. If you have any questions on the plan or the appendices, please let me know.

Thank you,  
David

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**Harbor Point Site, Utica (C)**  
**ONEIDA COUNTY, NEW YORK**

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**Site Management Plan**

**NYSDEC Site Number: 6-33-021, OU3, DSA-1**

**Prepared for:**

New York State Thruway Authority  
New York State Canal Corporation  
200 South Boulevard, Albany, New York 12209

**Prepared by:**

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**AUGUST 2010**

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# SITE MANAGEMENT PLAN

## 1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

### 1.1 INTRODUCTION

This document is required as an element of the remedial program at the Harbor Point Site, Utica (C), Oneida County Site No. 6-33-021, OU3 Dredge Spoil Area-1 (DSA-1) (hereinafter referred to as the “Site”) under the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program administered by New York State Department of Environmental Conservation (NYSDEC). The site was remediated in accordance with Order on Consent Index #A4-0473-0000, Site # 6-33-021. A copy of the Order on Consent is attached as Appendix A.

#### 1.1.1 General

Niagara Mohawk Power Corporation (Niagara Mohawk) entered into an Order on Consent with the NYSDEC to remediate multiple sites in the Utica Harbor area, including DSA-1, a 14.5-acre property located in Utica, New York. Approximately 10.3 acres of this Site were remediated and are subject to this Plan. As required by the Order on Consent, a Remedial Investigation Report was prepared for Niagara Mohawk by Parsons Engineering Science Inc. in 1996. Niagara Mohawk later filed a complaint against NYSTA/NYSCC and other potentially responsible parties (PRPs). In a January 30, 2001 Settlement Agreement, NYSTA/NYSCC agreed to remediate contaminated media at the site. The terms of the Settlement Agreement stated that contaminated media was to be hauled to a Niagara Mohawk Power Corporation property for treatment and disposal by Niagara Mohawk. Long term groundwater monitoring will remain the responsibility of Niagara Mohawk or its successors (National Grid) for as long as NYSTA/NYSCC continues to own and operate the DSA for maintenance of the harbor

and neck. This Settlement Agreement was later amended to allow for off-site disposal at a NYSDEC approved facility. A copy of the Settlement Agreement and the April 5, 2007 amendment are attached as Appendix B.

A figure showing the location and boundaries of the Site is provided in Figure 1-1. The boundaries of the site are more fully described in the metes and bounds site description that is to be made part of a Deed Restriction that will be prepared and implemented for all three Utica Harbor Dredge Spoil Areas.

After completion of the remedial work described in the Remedial Action Work Plan, some contamination was left in the subsurface at this site, which is hereafter referred to as 'remaining contamination.' This Site Management Plan (SMP) was prepared to manage remaining contamination at the site until the Deed Restriction is extinguished in accordance with ECL Article 71, Title 36. All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by Malcolm Pirnie Inc. in conjunction with and on behalf of NYSTA/NYSCC in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and the guidelines provided by NYSDEC. This SMP addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) that are required by the Deed Restriction for the site.

### **1.1.2 Purpose**

The site contains contamination left after completion of the remedial action. Engineering Controls have been incorporated into the site remedy to control exposure to remaining contamination during the use of the site to ensure protection of public health and the environment. A Deed Restriction granted to the NYSDEC, and recorded with the Oneida County Clerk, will require compliance with this SMP and all ECs and ICs placed on the site. The ICs place restrictions on site use, and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary to ensure compliance with all ECs and ICs required by the Deed Restriction for contamination that remains at the site. This plan has been approved by the NYSDEC,

and compliance with this plan is required by the grantor of the Deed Restriction and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the site after completion of the Remedial Action, including: (1) implementation and management of all Engineering and Institutional Controls; (2) media monitoring; (3) operation and maintenance of all treatment, collection, containment, or recovery systems; and (4) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports.

To address these needs, this SMP includes two plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; and (2) a Monitoring Plan for implementation of Site Monitoring.

This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Deed Restriction. Failure to properly implement the SMP is a violation of the Deed Restriction, which is grounds for revocation of the Certificate of Completion (COC);
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the Order on Consent (Index #A4-0473-0000; Site #6-33-021) for the site, and thereby subject to applicable penalties.

### **1.1.3 Revisions**

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. In accordance with the Deed Restriction for the site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

## **1.2 SITE BACKGROUND**

### 1.2.1 Site Location and Description

The site is located in the City of Utica, County of Oneida, New York and is identified as Block xxxx and Lot xxx on the Oneida County Tax Map. The site is an approximately 14.5-acre area bounded by the Mohawk River to the northeast, Conn Realty Corporation and the NYSCC properties to the southeast, Niagara Mohawk Power Corporation property to the northwest, and Utica Terminal Harbor to the southwest (see Figure 1-1).

### 1.2.2 Site History

The Site was initially developed as a dredge spoil disposal area. The natural soils on the Site were excavated and used to construct berms to contain dredged materials. Once the excavated area was filled with dredge spoil material to a height near the top of the initial berms, the height of the berms was increased using dredged material. The site is separated into an upper and lower basin by an interior berm that separates the cells.

The material that was disposed of at the Site was dredged out of Utica Harbor, located to the west of the Site. The contamination in the harbor came in part from a large manufactured gas plant which was located on the present day Niagara Mohawk Harbor Point property. The plant operated between 1845 and the early 1950s, during which time the gas manufacturing processes produced a dense, oily liquid known as coal tar. The coal tar made its way into Utica Harbor through various avenues including escaping collection and contaminating surface soils, infiltrating or discharge into sewer lines which lead to surface waters, including the harbor.

### 1.2.3 Geologic Conditions

The Site contains fill material composed of the spoils from the original construction of the Mohawk River diversion and former dredging operations in the Utica Terminal Harbor, Barge Canal, and Mohawk River. The spoils material is highly variable, ranging from silt and clay to very coarse and well-sorted sand and fine gravels. Three major sedimentary units were identified by the RI: a dredge spoil and upper fluvial unit, a lower fluvial unit, and a glacial lacustrine unit. Diamicton layers are present within these units. An upper saturated zone is composed of the dredge material and upper

fluvial sediments. Within the upper fluvial sediments are peat beds, silts and clays, which constitute an upper (shallow) aquitard. The upper aquitard is underlain by the lower fluvial sand and gravel, which is the intermediate aquifer. The lower fluvial sediments are underlain by glacial lacustrine sediments consisting of light-gray, pink-hued silt with very fine sand and a trace of clay. This glacial lacustrine silt bed is underlain by laminated gray fine sand and silt with discontinuous clay and gravel layers.

Groundwater flow at the Site is generally radial toward the nearest water body. Groundwater elevations in soil borings drilled inside the bermed area during the pre-design investigation ranged from approximately 404-399 feet above mean sea level (amsl) (USGS NGVD). The estimated depth to groundwater ranged from approximately 5 to 13 feet below ground surface (bgs), depending on location within the cell and the texture of subsurface materials. Based on the RI, the average hydraulic conductivity in dredge materials at DSA-1 ranged from 1.45 feet per day (ft/day) to 0.15 ft/day ( $5.12 \times 10^{-4}$  centimeters per second (cm/sec) to  $5.3 \times 10^{-5}$  cm/sec) in upper fluvial sediments.

Precipitation that falls on the exterior side slopes of the dredge spoils area runs off the slopes to surrounding areas, generally to the Mohawk River and Utica Harbor, without contacting contaminated materials. The majority of the precipitation that falls within the spoil area infiltrates into the ground. A culvert was constructed in the northwest berm of the Site, which drains to Utica Harbor for use during future disposal activities.

### **1.3 SUMMARY OF REMEDIAL INVESTIGATION FINDINGS**

A Remedial Investigation (RI) was performed to characterize the nature and extent of contamination at the site. The results of the RI are described in detail in the following reports:

Remedial Investigation Report for the Expanded (Offsite) RI at Dredge Spoils Area, City of Utica, NY, prepared by Parsons Engineering Science Inc., dated August 1996. See Appendix C.

Pre-Design Investigation Report prepared by Malcolm Pirnie, Inc. in March 2003.  
See Appendix D.

Generally, the RI determined that cleanup objective exceedances for benzene and/or total PAHs were most prevalent in deep soil samples taken from the site. These exceedances tended to be located throughout the central portion of the Site. There were no shallow samples that exceeded cleanup objectives for benzene and shallow sample exceedances for total PAHs were generally located in the southwestern portion of the bermed area on the Site.

Below is a summary of site conditions when the RI and pre-design investigation were performed:

#### Soil

Soil samples obtained from the dredge spoils indicate that some areas contain high levels of benzene and polynuclear aromatic hydrocarbons (PAHs), among other contaminants. When sampled, the concentration of benzene and total PAHs ranged from not detected to 5.6 mg/kg and 1,725 mg/kg respectively, which exceeds the target cleanup levels of 0.2 mg/kg for benzene and 1,000 mg/kg for total PAH as described in the New York State Department of Conservation's (NYSDEC) Record of Decision (ROD) for the site. The ROD is attached in Appendix E.

#### Site-Related Groundwater

Groundwater samples collected from monitoring wells surrounding the Site showed benzene and xylene contamination. Benzene levels ranged up to 3 ppb, with four of six wells exceeding the New York State drinking water standard of 1.0 ppb. Xylene levels ranged up to 160 ppb, with four of the six wells exceeding the New York State drinking water standard of 5.0 ppb.

This contamination is due to the Site being used as a disposal area for contaminated dredge spoils from Utica Harbor.

## 1.4 SUMMARY OF REMEDIAL ACTIONS

The site was remediated in accordance with the NYSDEC-approved Remedial Design dated April 2008.

The following is a summary of the Remedial Actions performed at the site:

1. Excavation of dredge spoil “hot spots” exceeding 1,000 mg/kg of PAH or 0.2 mg/kg of benzene to elevation 398 feet amsl (USGS NGVD) as required by the ROD.
2. If the DSA Site is not used within three years of the approval of remediation plans construction and maintenance of a soil cover system consisting of a minimum 18 inch layer of non-contaminated fill material and a six inch layer of topsoil will take place to prevent human exposure to remaining contaminated soil/fill remaining at the site. If the Site is utilized as a dredge spoil area within three years, the dredge material will serve to cap the Site with spoil material having contamination levels below 35 mg/kg PAH;
3. Execution and recording of a Deed Restriction to restrict land use and prevent future exposure to any contamination remaining at the site.
4. Implementation of groundwater use restrictions on and in the vicinity of the site.
5. Development and implementation of this Site Management Plan for long term management of remaining contamination as required by the Deed Restrictions, which include plans for: (1) Institutional and Engineering Controls, (2) monitoring, and (3) reporting;

Field work for Remedial activities was completed at the Site in September 2009.

### 1.4.1 Removal of Contaminated Materials from the Site

In the summer of 2009, soil with contamination levels exceeding the 1,000 mg/kg of PAH or 0.2 mg/kg of benzene clean up objectives were excavated, stockpiled for waste characterization, then loaded and transported to Oneida-Herkimer Regional Landfill for ultimate disposal. In total, approximately 7,573 cubic meters (9905 cubic yards) of



contaminated material was disposed of at Oneida-Herkimer Regional Landfill, a NYSDEC authorized disposal facility.

In addition, 51,350 cubic meters (67,163 cubic yards) of soil with contamination levels less than the ROD clean-up objectives were used to regrade the site for continued future use as a DSA. Berms were reconstructed to approximately 16 feet high with 2 foot horizontal to one foot vertical side slopes. The bottom of the excavation within the bermed areas varies from approximately 402 to 406 feet amsl (USGS NGVD).

The remediation contractor's As-Built record drawings can be seen in Appendix F.

#### **1.4.2 Site-Related Treatment Systems**

No long-term treatment systems were installed as part of the site remediation.

#### **1.4.3 Remaining Contamination**

Residual petroleum and coal tar-related compound contamination remains in the dredge spoils. The main categories of contaminants that exceed 6 NYCRR Part 375 Commercial Soil Cleanup Objectives (CSCOs) are VOCs in addition to SVOCs.

In accordance with the ROD stipulated clean-up objectives, contaminated soils with levels exceeding the 1,000 mg/kg of PAH or 0.2 mg/kg of benzene remain on-site at elevations below 398 amsl (USGS NGVD). Soils above this elevation may contain contamination at levels less than 1,000 mg/kg of PAH or 0.2 mg/kg of benzene.

In its current use as a DSA, direct contact or inhalation of VOCs from subsurface soil, groundwater, or soil vapor during future construction work and/or utility access and repairs are the only expected potential human exposure pathway to the residual contamination given the prohibited future use of groundwater, absence of buildings on the site, and the future placement of dredge spoils with low level contamination (less than 35 mg/kg PAH or future cap). The potential human exposure pathway will need to be revisited should ownership or the use of the Site change in the future.

Pre-remediation contaminant levels are further described in the RI and pre-design investigation in Appendices C and D. Results of the remediation contractor's lab

analyses for soils remaining at the site after removal of the “hot spots” shown on the As-Built record drawings are included in Appendix F.

## **2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN**

### **2.1 INTRODUCTION**

#### **2.1.1 General**

Since remaining contaminated soil and groundwater exists beneath the site, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment. This Engineering and Institutional Control Plan describes the procedures for the implementation and management of all EC/ICs at the site. The EC/IC Plan is one component of the SMP and is subject to revision by NYSDEC.

#### **2.1.2 Purpose**

This plan provides:

- A description of all EC/ICs on the site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs set forth in the Deed Restriction;
- A description of the features to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Excavation Work Plan for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the site; and
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the site remedy, as determined by the NYSDEC.

## 2.2 ENGINEERING CONTROLS

### 2.2.1 Engineering Control Systems

#### 2.2.1.1 Soil Cover System

Exposure to remaining contamination in soil/fill at the site will be prevented by a soil cover system placed over the site. NYSTA/NYSCC will continue to use the Site as a dredge spoil area. In accordance with the ROD, within three years of approval of the remediation plans, future dredging will serve to cap the site with spoil material having contamination levels below 35 mg/kg PAH. Should NYSTA/NYSCC not use the site for dredge spoils within this three year period, a cover system will be constructed, which would be comprised of a minimum of 18 inches of clean soil and six inches of topsoil. Should the Site use change or should the Site be developed by a future owner, NYSDEC may require a more stringent cover system, depending on the proposed use.

The Generic Health and Safety Plan that appears in Appendix G outlines the procedures required to be implemented in the event the currently planned cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of this cover are provided in the Monitoring Plan included in Section 4 of this SMP.

#### 2.2.1.2 Drainage

The berms around the disposal areas are constructed at an approximately two foot horizontal for every one foot vertical grade. This slope allows precipitation to runoff the exterior slopes of the DSA to surrounding areas, generally to the Mohawk River and Utica Harbor, without contacting contaminated materials. The majority of the precipitation that falls within the DSA berms infiltrates into the ground. A culvert was constructed in the northwest berm of the DSA, which drains to Utica Harbor for surface water runoff and for use during future dredge disposal activities.

#### 2.2.1.3 Rip Rap and Weir Boxes

Rip rap and weir boxes were used for erosion protection in culvert outfall swales for both current conditions and during future use of the Site as a DSA.

## 2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10.

### 2.2.2.1 Soil Cover System

The soil cover system is expected to be a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

### [2.2.2.2 Monitored Natural Attenuation]

Groundwater monitoring is required by NYSDEC for at least 10 years. Pursuant to the terms of the Settlement Agreement, long term groundwater monitoring will remain the responsibility of Niagara Mohawk or its successors (National Grid) for as long as NYSTA/NYSCC continues to own and operate the DSA for maintenance of the harbor and neck. If the Site use changes or there is a change in ownership, the groundwater monitoring will become the responsibility of NYSTA/NYSCC per the terms of the Settlement Agreement, or current landowner via the terms of the Deed Restriction .

Groundwater monitoring activities to assess natural attenuation will continue, as determined by the NYSDEC, until residual groundwater concentrations are found to be consistently below NYSDEC standards or have become asymptotic at an acceptable level over an extended period. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional source removal, treatment and/or control measures will be evaluated.

## 2.3 INSTITUTIONAL CONTROLS

A series of Institutional Controls is required by the ROD to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination;

Field Code Changed

and, (3) under the current use of the Site **limit the use and development to** dredge spoil disposal activities, inspection, and maintenance by NYSTA/NYSCC, or contracted personnel working on behalf of NYSTA/NYSCC **only**. **Adherence to these Institutional Controls on the site is required by the Deed Restriction and will be implemented under this Site Management Plan.** These Institutional Controls are:

- Compliance with the Deed Restriction and this SMP by the Grantor and the Grantor's successors and assigns;
- All Engineering Controls must be operated and maintained as specified in this SMP;
- All Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP;

Institutional Controls identified in the Deed Restriction **may not be discontinued without an amendment to or extinguishment of the Deed Restriction.**

The site has a series of Institutional Controls in the form of site restrictions. **Adherence to these Institutional Controls is required by the Deed Restriction.** Site restrictions that apply to the Controlled Property are:

- The property may only be used for **non-residential use** provided that the long-term Engineering and Institutional Controls included in this SMP are employed.
- The property may not be used for a higher level of use, such as **unrestricted residential use without additional remediation and amendment of the Deed Restriction, as approved by the NYSDEC;**
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP;

- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;
- The potential for vapor intrusion must be evaluated for any buildings developed on the Site and any potential impacts that are identified must be monitored or mitigated;
- Vegetable gardens and farming on the property are prohibited;
- The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

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### 2.3.1 Excavation Work Plan

The site has been for restricted non-residential use. Any future intrusive work that will penetrate the soil cover or cap, or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cover system will be performed in compliance with the Generic Excavation Work Plan (EWP) that is attached as Appendix H to this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the site. A Generic Health and Safety Plan (HASP) is attached as Appendix G to this SMP that demonstrates the necessary components required to be in compliance with current DER-10, and 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. Based on future changes to State and federal health and safety requirements, and specific methods employed by future contractors, a project specific EWP, HASP and CAMP shall be prepared and submitted to NYSDEC prior to beginning any site work. The notification form is provided in the Generic EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be included in the

periodic inspection and certification reports submitted under the Site Management Reporting Plan (See Section 5).

The site owner and associated parties preparing the project specific EWP, HASP and CAMP submitted to NYSDEC, and parties performing this work, are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of excavation de-water, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as foundations and footings). The site owner will ensure that site development activities will not interfere with, or otherwise impair or compromise, the engineering controls described in this SMP.

### **2.3.2 Soil Vapor Intrusion Evaluation**

Under its current use as a DSA, the NYSTA/NYSCC has no future development plans for the Site. If the Site use changes and enclosed structures are planned, a soil vapor intrusion evaluation is required.

Prior to the construction of any enclosed structures located over areas that contain remaining contamination and the potential for soil vapor intrusion (SVI) may be identified, an SVI evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure. Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation. This mitigation system will include a vapor barrier and passive sub-slab depressurization system that is capable of being converted to an active system.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to the NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the most recent NYSDOH "Guidance for Evaluating Vapor Intrusion in the State of New York". Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, the NYSDOH guidance, and construction details of the proposed structure.



Preliminary (unvalidated) SVI sampling data will be forwarded to the NYSDEC and NYSDOH for initial review and interpretation. Upon validation, the final data will be transmitted to the agencies, along with a recommendation for follow-up action, such as mitigation.

SVI sampling results, evaluations, and follow-up actions will also be summarized in the next Periodic Review Report.

## **2.4 INSPECTIONS AND NOTIFICATIONS**

### **2.4.1 Inspections**

Inspections of all remedial components installed at the site will be conducted at the frequency specified in the SMP Monitoring Plan schedule. A comprehensive site-wide inspection will be conducted annually, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether Engineering Controls continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Deed Restriction;
- Achievement of remedial performance criteria;
- Sampling and analysis of appropriate media during monitoring events;
- If site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system;

The groundwater monitoring and reporting will be performed by Niagara Mohawk or its successors (National Grid) for as long as NYSTA/NYSCC continues to own and operate the DSA for maintenance of the harbor and neck as noted above. If the Site use changes or there is a change in ownership, the groundwater monitoring will become the responsibility of NYSTA/NYSCC per the terms of the Settlement Agreement, or current landowner via the terms of the Deed Restriction.

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3). The reporting requirements are outlined in the Periodic Review Reporting section of this plan (Section 5).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the EC/ICs implemented at the site by a qualified environmental professional as determined by NYSDEC.

#### **2.4.2 Notifications**

Notifications will be submitted by the property owner to the NYSDEC as needed for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the Order on Consent, 6NYCRR Part 375, and/or Environmental Conservation Law.
- 15-day advance notice of any proposed ground-intrusive activities pursuant to the Excavation Work Plan.
- Notice within 48-hours of any damage or defect to the foundations of structures that reduces or has the potential to reduce the effectiveness of other Engineering Controls and likewise any action to be taken to mitigate the damage or defect.
- Notice within 48-hours of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of Engineering Controls in place at the site, including a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the Order on Consent, and all approved work plans and reports, including this SMP.

- Within 15 days after the transfer of all or part of the site, the new owner's name, contact representative, and contact information will be confirmed in writing.

## 2.5 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

### 2.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance, the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to the NYSTA/NYSCC Thruway Senior Dispatcher and NYSDEC Remedial Bureau C or its successor agency. These emergency contact lists must be maintained by NYSTA/NYSCC in an easily accessible location at the Utica Section Office and made readily available to all personnel at all times. Future owners will be required to keep the list at the Site.

**Table 2-1: Emergency Contact Numbers**

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility markout)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

**Table 2-2: Contact Numbers**

NYSTA/NYSCC Thruway Senior Dispatcher	518-436-2888
NYSDEC Remedial Bureau C (John Spellman)	518-402-9662

\* Note: Contact numbers subject to change and should be updated as necessary

### 2.5.2 Map and Directions to Nearest Health Facility

**Site Location:** DSA-1, Wells Avenue, Utica Harbor

**Nearest Hospital Name:** St. Elizabeth Medical Center

**Hospital Location:** 2209 Genesee Street Utica, NY 13501

**Hospital Telephone:** 315-798-8100 / Emergency 911

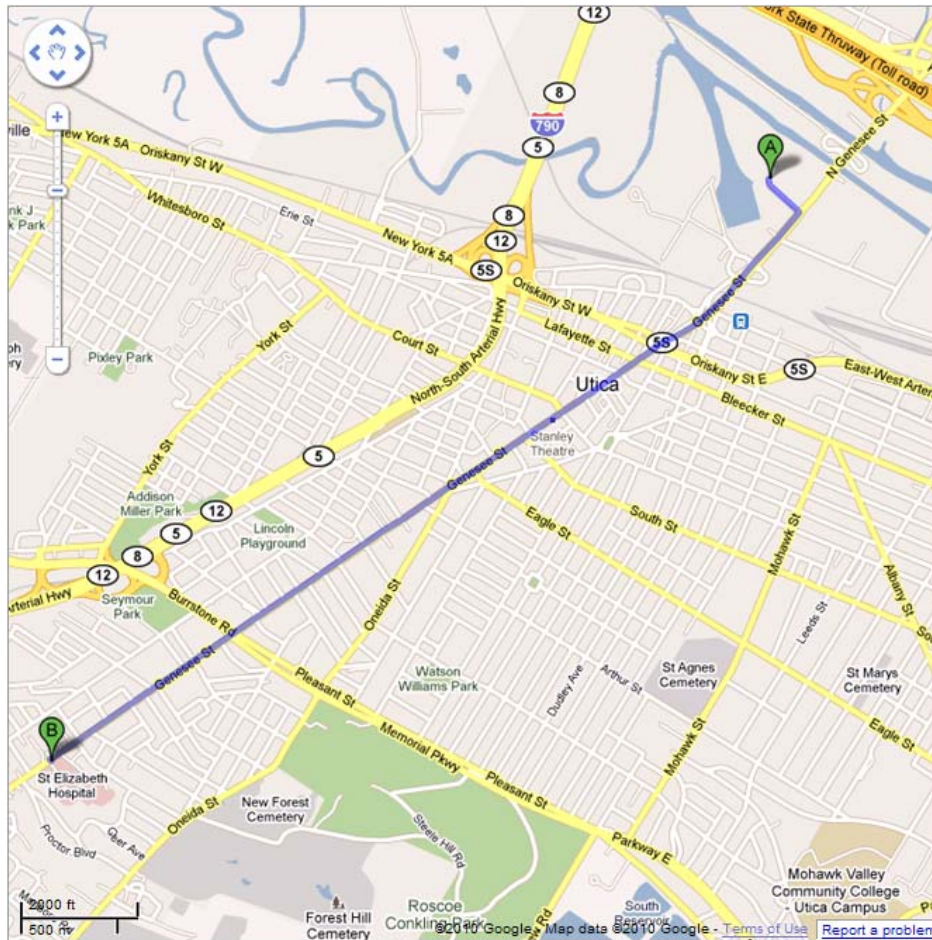
**Directions to the Hospital:**

1. Travel on access roads to Wells Avenue.
2. Take a right on N. Genesee Street.
3. Travel approximately 3 miles.
4. St. Elizabeth Medical Center will be on the left.

**Total Distance:** Less than 5 miles

**Total Estimated Time:** 11 minutes

**Figure 2-1 - Map Showing Route from the site to the Hospital:**



### **2.5.3 Response Procedures**

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table 2-1). The list will also be posted prominently by NYSTA/NYSCC at the Utica Section Office and made readily available to all personnel at all times. Future owners will be required to keep the list at the Site and readily available to all personnel at all times.

## 3.0 SITE MONITORING PLAN

### 3.1 INTRODUCTION

#### 3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the site, the soil cover system, and all affected site media identified below. Monitoring of other Engineering Controls is described in Chapter 4, Operation, Monitoring and Maintenance Plan. This Monitoring Plan may only be revised with the approval of NYSDEC.

#### 3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., groundwater, indoor air, soil vapor, soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance, particularly ambient groundwater standards and Part 375 SCOs for soil;
- Assessing achievement of the remedial performance criteria.
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

To adequately address these issues, this Monitoring Plan provides information on:

- Sampling locations, protocol, and frequency;
- Information on all designed monitoring systems (e.g., well logs);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and

Field Code Changed

- Annual inspection and periodic certification.

Annual groundwater monitoring of the performance of the remedy and overall reduction in contamination on-site will be conducted for the first 10 years. The frequency thereafter will be determined by NYSDEC. The groundwater monitoring and reporting will be performed by Niagara Mohawk or its successors (National Grid) for as long as NYSTA/NYSCC continues to own and operate the DSA for maintenance of the harbor and neck as noted above. If the Site use changes or there is a change in ownership, the groundwater monitoring will become the responsibility of NYSTA/NYSCC per the terms of the Settlement Agreement, or current landowner via the terms of the Deed Restriction .

Trends in contaminant levels in air, soil, and/or groundwater in the affected areas, will be evaluated to determine if the remedy continues to be effective in achieving remedial goals. Monitoring programs are summarized in Table 3-1 and outlined in detail in Sections 3.2 and 3.3 below.

**Table 3-1: Monitoring/Inspection Schedule**

<b>Monitoring Program</b>	<b>Frequency*</b>	<b>Matrix</b>	<b>Analysis</b>
Site-Wide Inspection	Annually	--	--
Groundwater Monitoring	Annually	By National Grid	By National Grid

\* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH



### **3.2 SOIL COVER SYSTEM MONITORING**

Monitoring of active engineering controls is included with operation and maintenance of these systems in Chapter 4.

### **3.3 MEDIA MONITORING PROGRAM**

#### **3.3.1 Groundwater Monitoring**

Groundwater monitoring will be performed on a periodic basis to assess the performance of the remedy. The groundwater monitoring and reporting will be performed by Niagara Mohawk or its successors (National Grid) for as long as NYSTA/NYSCC continues to own and operate the DSA for maintenance of the harbor and neck as noted above. If the Site use changes or there is a change in ownership, the groundwater monitoring will become the responsibility of NYSTA/NYSCC per the terms of the Settlement Agreement, or current landowner via the terms of the Deed Restriction.

### **3.4 SITE-WIDE INSPECTION**

Site-wide inspections will be performed on a regular schedule at a minimum of once a year by a Professional Engineer or qualified environmental professional acceptable to NYSDEC licensed to practice in New York State. Site-wide inspections will also be performed after all severe weather conditions that may affect Engineering Controls or monitoring devices. During these inspections, an inspection form will be completed. The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection;
- Compliance with permits and schedules included in the Operation and Maintenance Plan; and
- Confirm that site records are up to date.

### 3.5 MONITORING QUALITY ASSURANCE/QUALITY CONTROL

All sampling and analyses will be performed in accordance with the requirements of a Quality Assurance Project Plan (QAPP) prepared for the Site that will be developed and submitted by National Grid or any future sampling owner. Main Components of the QAPP may include but are not necessarily limited to:

- QA/QC Objectives for Data Measurement;
- Sampling Program:
  - Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) prior to their use by the analytical laboratory. Containers with preservative will be tagged as such.
  - Sample holding times will be in accordance with the NYSDEC ASP requirements.
  - Field QC samples (e.g., trip blanks, coded field duplicates, and matrix spike/matrix spike duplicates) will be collected as necessary.
- Sample Tracking and Custody;
- Calibration Procedures:
  - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.
  - The laboratory will follow all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Analytical Procedures;
- Preparation of a Data Usability Summary Report (DUSR), which will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method.
- Internal QC and Checks;

- QA Performance and System Audits;
- Preventative Maintenance Procedures and Schedules;
- Corrective Action Measures.

### 3.6 MONITORING REPORTING REQUIREMENTS

Forms and any other information generated during regular inspections will be kept on file by NYSTA/NYSCC at the Utica Section Office and the Syracuse Division Offices. Future owners will be required to keep these files on-Site. All forms, and other relevant reporting formats used during the monitoring/inspection events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Periodic Review Report, as specified in the Reporting Plan of this SMP.

All monitoring results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. A letter report will also be prepared, if required by NYSDEC, subsequent to each sampling event. The report (or letter) will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether groundwater conditions have changed since the last reporting event.

Data will be reported in hard copy or digital format as determined by NYSDEC.  
A summary of the monitoring program deliverables are summarized in Table 3-2 below.

**Table 3-2: Schedule of Monitoring/Inspection Reports**

<b>Task</b>	<b>Reporting Frequency*</b>
EC&IC monitoring by owner	Annually
Groundwater Monitoring	Annually

\* The frequency of events will be conducted as specified until otherwise approved by NYSDEC

## **4.0 OPERATION AND MAINTENANCE PLAN**

### **4.1 INTRODUCTION**

The Operation and Maintenance Plan included in this SMP applies to the EC/IC currently implemented. The site remedy does not currently rely on any mechanical systems, such as sub-slab depressurization systems or air sparge / soil vapor extraction systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not included in this SMP, but will need to be added should the use of the Site change.

### **4.2 ENGINEERING CONTROL SYSTEM OPERATION AND MAINTENANCE**

Monitoring and maintenance is done to ensure that the remediation measures and engineering controls continue to operate as designed and constructed. Monitoring activities include routine inspection for erosion and settlement that could compromise the integrity of the DSA. Care and maintenance activities include inspection and repair of remedial measures and repairs to the storm water features. This could include mowing, seeding, or regrading of soils. The following sections describe the proposed actions to maintain the integrity of the DSA-1 site throughout its continued future use as a dredge spoil area and subsequent post-closure period.

This section was developed, in conjunction with the DSA-1 Remediation Design to provide information needed to effectively monitor and maintain the site during future use and subsequent post-closure period.

#### **4.2.1 Site Stability**

The integrity and effectiveness of the DSA and future cover will be maintained by making repairs as necessary to correct the effects of settlement, subsidence, erosion, or other events; maintaining the appropriate vegetative cover; and preventing erosion from damaging DSA and subsequent cap. These issues should be addressed as soon as possible after they are discovered. The Bank Maintenance guidance as found in the

NYSTA/NYSCC Operational Guidelines Manual should be utilized to repair stability issues.

Any occurrence of erosion should be investigated to ensure that erosion does not breach the elevations shown on the DSA-1 Remediation Record Plans. If these elevations are breached, any dredge spoil material that was eroded, if possible, should be recovered and replaced. The DEC should be notified of the breach and appropriate actions taken to confirm the extent of possible contamination resulting from the breach and to effectively repair the damaged area. Special care should be taken to repair the erosion and utilize engineering measures to minimize the likelihood of reoccurrence.

#### **4.2.2 Maintenance of Vegetated Cover**

##### **4.2.2.1 Mowing**

The vegetated cover provides structural stability for the slopes of the berms. Mowing is the critical element for maintaining side slope stability. At a minimum, mowing of the side slopes should occur twice a mowing season, between the months of April and November, or as necessary to maintain vegetation growth at 6 to 12 inches in height and to prevent woody growth. The following safe mowing practices shall be observed by all employees involved in mowing operations:

- All motor vehicle laws are to be observed at all times.
- Remember, mowing machines present a danger to bystanders and pedestrians. Do not operate the mower with anyone standing nearby.
- Never operate the triple mowing unit with the downhill unit extended and the opposite unit raised.
- Wear all the protective clothing and personal safety devices issued and required by job conditions. You may need hard hat, safety shoes, safety glasses, heavy gloves, hearing protection, reflective clothing, wet weather gear and respirator or filter mask.
- The use of the “buddy” system in the conduct of mowing operations is encouraged, whenever possible. Mowing side by side or in close tandem shall be

avoided. Stay far enough from each other to avoid any flying objects such as stones or other foreign materials.

#### 4.2.2.2 Control of Noxious Weeds

The control of invasive species is of concern to New Yorkers and, in 2003, the Governor signed into law the NYS Invasive Species Task Force. Invasive plants and animals can cause significant changes to ecosystems and cause economic, environmental, agricultural, and recreational harm. For areas where invasive species communities are known to exist (Phragmites, Purple Loosestrife, Knotweed, etc.), the following decontamination steps should be practiced by all employees:

- Remove all plant material or soil clinging to equipment and work boots
- For small equipment – disinfect with chlorine solution
- For large equipment – all areas and niches should be visually inspected prior to reuse. Any foreign material should be removed.
- Soft material, such as erosion control fabric, gloves, or plastic sheeting should be disposed of in an environmentally friendly manner.

For specifics on proper disposal and decontamination, NYSTA/NYSCC employees should discuss suspected invasive species contaminated sites with their Division's Environmental Specialist for site specific procedures.

#### 4.2.2.3 Rip Rap Maintenance

Rip rap shall be weeded by manually pulling on the same schedule that the mowing will occur to maintain the integrity of the feature.

#### 4.2.2.4 Culvert Maintenance

Culverts shall be inspected to ensure functionality is being maintained. Any obstructions shall be removed and repairs shall be made when required.

#### 4.2.2.5 Soil Disturbance

Any breach in the remedial cover shall be repaired. Repairs shall be made within 30 days of observance unless otherwise directed by NYSDEC. Erosion gullies shall be filled with topsoil and seeded. If affected locations continue to erode, alternative controls shall be put in place. Any observance of animals disturbing the remedial cover by digging or burrowing shall be addressed by repairing the disturbed area and reseeding. Actions should be taken to remove the animal from the site to minimize the likelihood of further destruction and/or a breach of the remediation measures and/or future cap.

### **4.3 ENGINEERING CONTROL SYSTEM PERFORMANCE MONITORING**

The site remedy does not currently rely on any mechanical systems, such as sub-slab depressurization systems or air sparge / soil vapor extraction systems to protect public health and the environment. If the future use of the Site should require such measures, they shall be added here.

### **4.4 MAINTENANCE AND PERFORMANCE MONITORING REPORTING REQUIREMENTS**

Maintenance reports and any other information generated during regular operations at the site will be kept by NYSTA/NYSCC at the Utica Section Office and the Syracuse Division Offices. Future owners will be required to keep these files on-Site. All reports, forms, and other relevant information generated will be available upon request to the NYSDEC and submitted as part of the Periodic Review Report, as specified in the Section 5 of this SMP.

#### **4.4.1 Routine Maintenance Reports**

Checklists or forms will be completed during each routine maintenance event. Checklists/forms will include, but not be limited to the following information:

- Date;
- Name, company, and position of person(s) conducting maintenance activities;



- Maintenance activities conducted;
- Any modifications to the system;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and,
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

#### **4.4.2 Non-Routine Maintenance Reports**

During each non-routine maintenance event, a form will be completed which will include, but not be limited to, the following information:

- Date;
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- Description of any deficiencies;
- Date of repair;
- Other repairs or adjustments made;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and,
- Other documentation such as copies of invoices for repair work, etc. (attached to the checklist/form).

## **5. INSPECTIONS, REPORTING AND CERTIFICATIONS**

### **5.1 SITE INSPECTIONS**

#### **5.1.1 Inspection Frequency**

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan and Section 4 Operation and Maintenance Plan of this SMP. At a minimum, a site-wide inspection will be conducted annually. Inspections of remedial components will also be conducted when a breakdown of any treatment system component has occurred or whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs.

#### **5.1.2 Inspection Forms, Sampling Data, and Maintenance Reports**

All inspections and monitoring events will be recorded on the appropriate forms for their respective system. Additionally, a general site-wide inspection form will be completed during the site-wide inspection. These forms are to be developed by the owner or inspecting consultant performing the inspections on the owner's behalf and submitted to NYSDEC Remedial Bureau C for approval. Approved forms shall be subject to periodic revision as deemed necessary by NYSDEC.

All applicable inspection forms and other records, including all media sampling data and system maintenance reports, generated for the site during the reporting period will be provided in electronic format in the Periodic Review Report.

#### **5.1.3 Evaluation of Records and Reporting**

The results of the inspection and site monitoring data will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective;
- The Monitoring Plan is being implemented;

- Operation and maintenance activities are being conducted properly; and, based on the above items,
- The site remedy continues to be protective of public health and the environment and is performing as designed in the Remedial Action Work Plan (RAWP) and Field Evaluation Report (FER).

## 5.2 CERTIFICATION OF ENGINEERING AND INSTITUTIONAL CONTROLS

After the last inspection of the reporting period, a qualified environmental professional or Professional Engineer licensed to practice in New York State will prepare the following certification:

For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

- The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the site is compliant with the Deed Restriction;
- The engineering control systems are performing as designed and are effective;

- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and generally accepted engineering practices; and
- The information presented in this report is accurate and complete.
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class “A” misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner or Owner’s Designated Site Representative].
- No new information has come to my attention, including groundwater monitoring data from wells located at the site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid; and

Field Code Changed

Every five years the following certification will be added:

- The assumptions made in the qualitative exposure assessment remain valid.

The signed certification will be included in the Periodic Review Report described below.

### 5.3 PERIODIC REVIEW REPORT

A Periodic Review Report will be submitted to the Department every year, beginning eighteen months after the Certificate of Completion or equivalent document is issued. In the event that the site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the site as described in the Metes and Bounds description of the Deed Restriction. The report will be prepared in accordance with NYSDEC DER-10 and submitted within 45 days of the end of each certification period. Media sampling results will also be incorporated into the Periodic Review Report. The report will include the following (as applicable):

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site;
- Results of the required annual site inspections and severe condition inspections, if applicable;
- All applicable inspection forms and other records generated for the site during the reporting period in electronic format;
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends;
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format;
- A site evaluation, which includes the following:
  - The compliance of the remedy with the requirements of the site-specific RAWP, ROD or Decision Document;
  - The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;
  - Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;
  - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
  - The overall performance and effectiveness of the remedy.

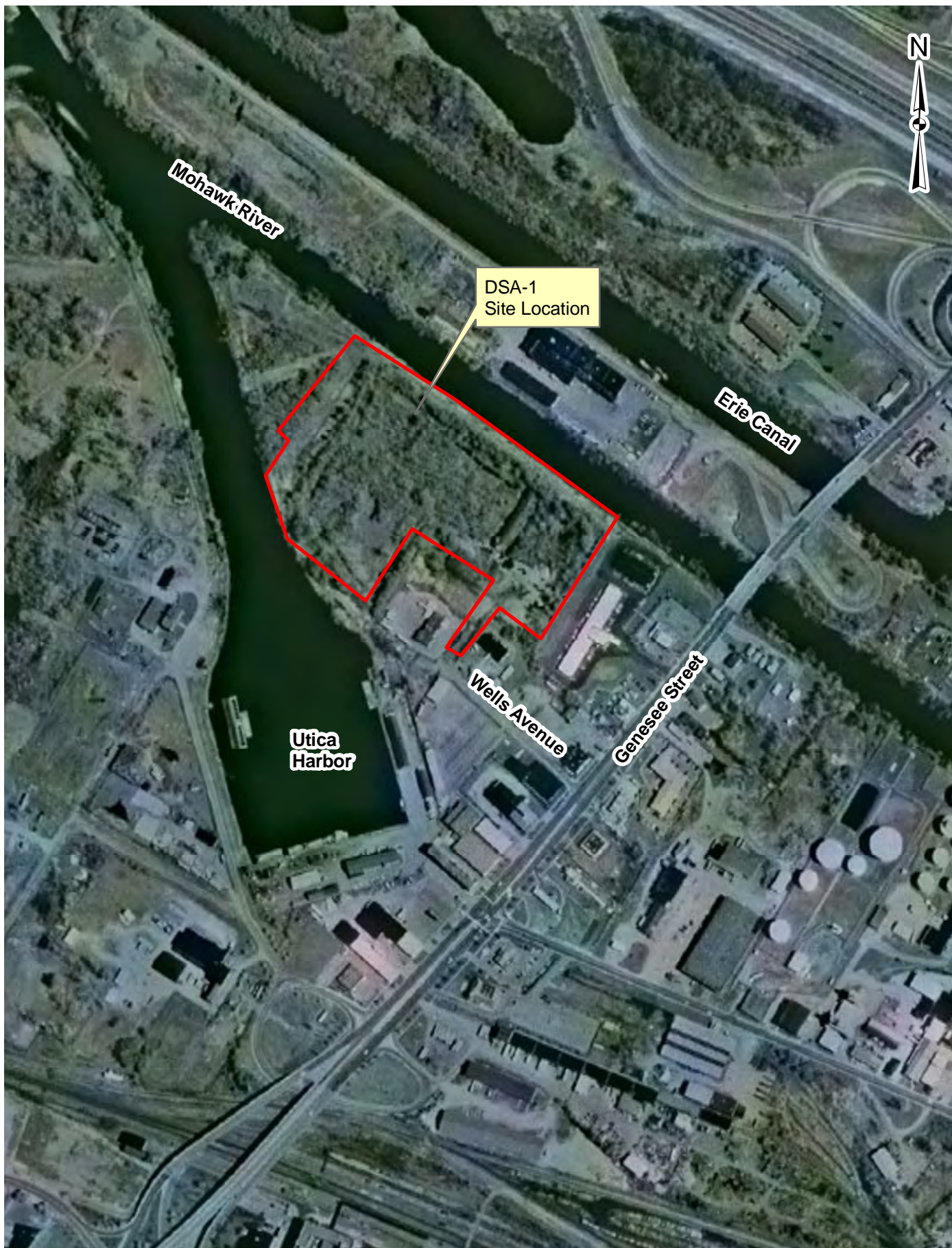
The Periodic Review Report will be submitted, in hard-copy format, to the NYSDEC Central Office and Regional Office in which the site is located, and in

electronic format to NYSDEC Central Office, Regional Office and the NYSDOH Bureau of Environmental Exposure Investigation.

#### **5.4 CORRECTIVE MEASURES PLAN**

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a corrective measures plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measures plan until it is approved by the NYSDEC.





1 inch = 500 feet



Harbor Point Site,  
Utica (C), Oneida County  
Site No. 6-33-021, OU3, DSA-1

SITE LOCATION MAP

MALCOLM PIRNIE, INC.

AUGUST 2010

FIGURE 1-1



**New York State Thruway Authority  
New York State Canal Corporation**

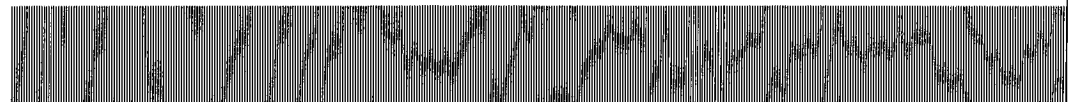
200 Southern Boulevard • Albany, New York 12201-0189



**Harbor Point Site, Utica (C), Oneida County  
Site No. 6-33-021, OU3, DSA-1**

**Site Management Plan  
Appendix G:  
Generic Health & Safety Plan for  
Subsurface Work**

August 2010



Prepared By:

**Malcolm Pirnie, Inc.**

855 Route 146, Suite 210  
Clifton Park, New York 12065  
518-250-7300  
In conjunction with NYSTA/NYSCC

4098045

**MALCOLM  
PIRNIÉ**



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# 1. Introduction

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## 1.1. Objective

This Generic Health and Safety Plan (HASP) has been prepared as a generic appendix to the Site Management Plan (SMP) for future subsurface work that will breach DSA-1 Remediation Record Plans elevations. This Generic HASP will need to be updated for excavations within dredge spoils placed after the DSA-1 Remediation work was completed in 2009, as appropriate for the characteristics of the dredge spoil materials.

The purpose of this document is to provide hazard information and minimum Health and Safety protocols and procedures that will be implemented during subsurface work activities to promote worker safety and protect the general public.

This Generic HASP shall be considered the minimum requirement for subsurface work based on the regulatory requirements and standards that were in effect at the time it was written. It shall be reviewed and updated to meet current regulatory requirements and standards prior to commencing any future subsurface work.

## 2. Site Information, Hazards, and Control

### 2.1. Nature of Contamination and Exposure Pathway

Based on data obtained from the RI, residual petroleum and coal tar contamination remains at the site. The main categories of contaminants that exceed 6 NYCRR Part 375 Soil Cleanup Objectives (SCOs) are polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), and a number of metals. Given the absence of buildings on the site, direct contact or inhalation of VOCs from subsurface soil, groundwater, or soil vapor during future maintenance, use as a DSA, and/or utility access and repairs remains the only expected potential human exposure pathway to the residual contamination.

### 2.2. Emergency Information

Local emergency information is provided in Table 1. Hospital directions are provided in Figure 1.

Table 1.  
Emergency Information

Local Resources	Service Name	Telephone Number
Emergency Medical Services	Utica Ambulance Service	Emergency 911
Hospital (see attached map)	St. Elizabeth Medical Center	Emergency 911
Fire Department	Utica Fire Department	Emergency 911
Police/Security	Utica Police Department	Emergency 911
Hazmat/Spill/Other Response	Utica Fire Department	Emergency 911

### 2.3. Hazard Analysis

Potential chemical exposure during future subsurface work from the residual contamination would be to VOCs and PAHs. In the summer of 2009, soil with contamination levels exceeding the ROD Clean-up objectives of 1,000 mg/kg of PAH or 0.2 mg/kg of benzene were excavated, stockpiled for waste characterization, then loaded and transported to Oneida-Herkimer Regional Landfill for ultimate disposal.

Prior to the remediation of the site, VOCs, primarily benzene, ethylbenzene, toluene, and xylenes (BTEX) were found in groundwater at concentrations estimated up to 160 parts per billion (ppb) and in sediment at concentrations estimated up to 5.6 ppm. The lowest

permissible exposure limits (LPEL) for these compounds for an 8-hour time weighted average are approximately 10-200 parts per million (ppm), depending on the compound.

PAHs were found at the site in concentrations up to 1,725 ppm in soil. One specific PAH that was found was naphthalene. The LPEL for these compounds for an 8-hour time weighted average are approximately 10 ppm.

During routine maintenance, excavation and utility access, the route of exposure would be contact with contaminated soil or groundwater. However, the potential for contact is low and will be controlled through the use of appropriate personal protective equipment (PPE) and work practices.

## **2.4. Safety Procedures and Site Control Measures**

### **2.4.1. Work Zones**

The contractor's and/or subcontractor's site safety officer (SSO) will coordinate access control and security for subsurface work at the site. A safe perimeter will be established at the boundary of any excavation and/or safe distance from excavators and other heavy equipment. These boundaries will be identified by safety cones, caution tape, and/or temporary fencing.

### **2.4.2. Environmental Monitoring**

Given the potential for exposure of the residual soil contamination, VOCs will be monitored on a continuous basis during all ground-intrusive activities. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. VOC monitoring will be conducted using a MiniRae 2000 photoionization detector (PID). The PID will be calibrated at least daily using the span calibration gas recommended by the manufacturer. The PID will calculate 15-minute running average concentrations. These averages will be compared to the action levels specified below.

#### **Action Levels**

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective

actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, all work activities will be stopped.

All 15-minute average readings will be recorded and be available for review by the New York State Department of Environmental Conservation (NYSDEC) or the New York State Department of Health (NYSDOH). Instantaneous readings, if any, used for decision purposes will also be recorded.

Fugitive dust and particulate monitoring must also be conducted during all ground-intrusive activities which penetrate the DSA-1 remediation soil elevations. Frequency and action levels for monitoring shall be as specified in the NYSDEC Guidance (DER-10, Appendix 1B). A copy of this Guidance is included as Appendix A of this Generic HASP for reference.

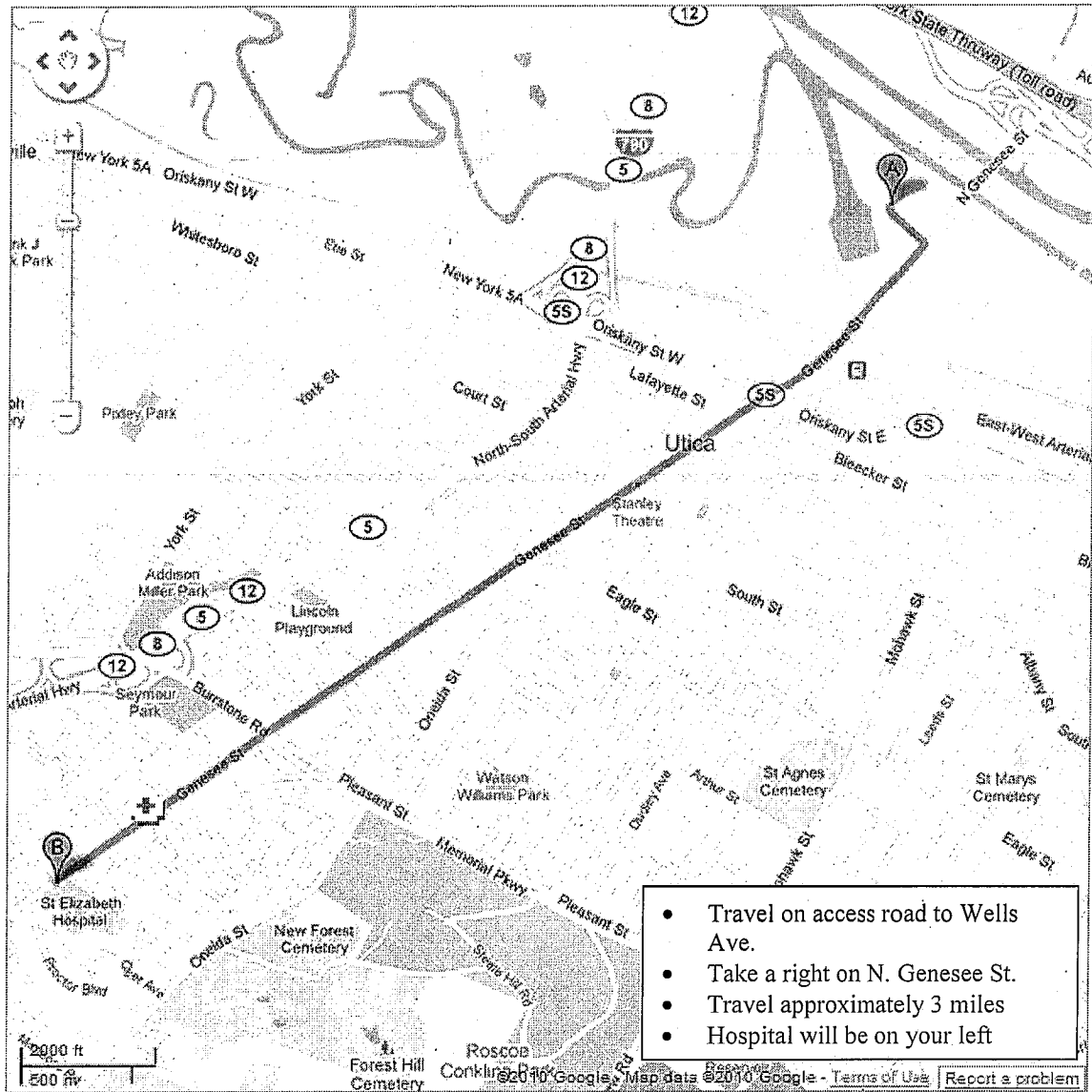


Figure 1

## 3. Roles and Responsibilities

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### 3.1. New York State Thruway Authority/New York State Canal Corporation (NYSTA/NYSCC)

In the event of excavation below the DSA-1 Remediation Record Plan elevations, NYSTA/NYSCC will provide the SMP and this Generic HASP to all applicable contractors and/or subcontractors to ensure that appropriate soil management and health and safety protocols are followed to prevent human exposure to residual petroleum contamination at the site. In accordance with 1910.120(b)(1)(iv) and (v), NYSTA/NYSCC will inform contractors and/or subcontractors of the site emergency response procedures, and any potential fire, explosion, health, safety or other hazards by making this Generic HASP and site information obtained by others available during regular business hours.

Providing a copy of this Generic HASP and Appendices to contractors and/or subcontractors does not establish, nor is it intended to establish, a "joint employer" relationship between the contractor and/or subcontractor and Malcolm Pirnie. This allowance does not establish, nor is it intended to establish, a direct or indirect employer/employee relationship with contractor's and/or subcontractor's employees.

### 3.2. Contractors and/or Subcontractors

Contractors and/or subcontractors for any future subsurface work at the site will be required to read, understand, and conform to the policies, requirements, and information presented in this Generic HASP and Appendices, including:

- Following the guidelines for PPE, engineering controls, and work practices identified in the Generic HASP and contractor's and/or subcontractor's site specific Health and Safety Plan (HASP) and Community Health and Safety Plan (CHASP);
- Understanding and complying with 29 Code of Federal Regulations (CFR) Part 1910 and 1926 rules and regulations as applicable to the tasks the contractor and/or subcontractor will be performing;
- Notifying NYSTA/NYSCC of identified or potential safety or health hazards, emergencies, or injuries;

- Complying with applicable OSHA and/or New York State training and medical surveillance requirements;
- Complying with the SMP.

Contractors and/or subcontractors shall be solely responsible for the health and safety of their employees and shall comply with all applicable laws and regulations. All contractors and/or subcontractors are responsible for:

- Developing their own Health and Safety Plan, including a written Hazard Communication Program and any other written hazard specific or safety programs required by federal, state and local laws and regulations, that details contractor and/or subcontractor tasks, potential or actual hazards identified as a result of a risk analysis of those tasks, and the engineering controls, work practices and PPE to be utilized to minimize or eliminate employee exposure to the hazard;
- Providing their own PPE;
- Providing documentation that their employees have been health and safety trained in accordance with applicable federal, state and local laws and regulations;
- Providing evidence of medical surveillance and medical approvals for their employees; and
- The contractor and/or subcontractor shall designate their own SSO. The contractor and/or subcontractor SSO is responsible for ensuring that their employees comply with their own site specific HASP and taking any other additional measures required by the SMP.

At least 30 days prior to beginning any work on the site that will include excavation below the elevation of the DSA-1 Remediation Record Plan elevations, the contractor and/or subcontractor shall prepare and submit five copies of a site specific Work Plan for review by NYSTA/NYSCC and an additional copy for review by the New York State Department of Environmental Conservation (NYSDEC). The contractor's and/or subcontractor's Work Plan shall include, at a minimum, the following:

- A site-specific site management plan identifying the contractor's and/or subcontractor's proposed staged approach for construction activities throughout all phases of the Work including but not necessarily limited to:
  - a. The tasks and objectives of the Site operations and the logistics and resources required to achieve those tasks and objectives.



- b. The personnel and equipment requirements for implementing the Work Plan.
- c. Mobilization and demobilization plans.
- d. A management plan for all contact water, including groundwater, precipitation, and surface water runoff pumped from excavations in contaminated soil, and decontamination pad(s). Contractor and/or subcontractor shall include appropriate contingency provisions for the prevention of non-aqueous phase liquid (NAPL) discharge to the groundwater.
- e. Size, location and materials for the contractor's and/or subcontractor's dewatering basin(s).
- f. Contractor's and/or subcontractor's plan for contaminated soil staging, excavation, and stockpiling.
- g. Contractor's and/or subcontractor's plan for sampling and testing stockpiled contaminated soils.
- h. The truck route(s) and loading area.
- i. Size, location, materials and procedures for the contractor's and/or subcontractor's decontamination pad.
- j. The forms that the contractor and/or subcontractor propose to use to submit daily field reports to meet his reporting requirement.
- k. Qualifications of industrial hygienist or safety professional.
- l. Should excavated materials be removed from the site, they should be disposed of at an appropriate permitted facility. Copies of all necessary permits and certifications of waste haulers and disposal facilities must be submitted to NYSTA/NYSCC for review and approval before commencing any contaminated soils or materials removal or disposal activities.
  - i. Submit copies of all permits required to transport contaminated soil and all other materials as issued by the New York State Department of Environmental Conservation and the New York State Department of Transportation.
  - ii. Submit copies of a truck ticket for each time a truck leaves the site with contaminated soils or materials. Ticket shall include at a

- minimum: load number, quantity, date and time the truck left the site, source (stockpile number), stops, destination site, and date and time unloaded.
- iii. Written certification of proper transport and final disposal of all contaminated soil, and materials shall be submitted to NYSTA/NYSCC within ten (10) working days after delivery.
  - iv. Written certification, including copies of all delivery tickets for contaminated soils and materials transported to the disposal facility shall be submitted.
  - v. Laboratory reports for all waste characterization Soil Sampling and Testing shall be submitted to NYSTA/NYSCC within 30 days of the collection of the samples.
- m. A site-specific HASP to protect his own people. The HASP shall be prepared in accordance with Section 107-05 and OSHA regulations found at 29 CFR 1910.120. The HASP shall, at a minimum, include the following:
- i. Description of work.
  - ii. Site description.
  - iii. A comprehensive work plan.
  - iv. A safety and health risk or hazard analysis for each task and operation found in the work plan.
  - v. Hazardous substance evaluation (include Material Safety Data Sheets).
  - vi. Hazard assessment.
  - vii. Air monitoring procedures.
  - viii. Decontamination procedures.
  - ix. Emergency contacts with phone numbers.
  - x. Identification of nearest hospital and route to reach it.
  - xi. Notification to local EMS and Fire Departments at least one week in advance of work and upon completion of work.

xii. The organizational structure of contractor's and/or subcontractor's organization. The organizational structure part of the HASP shall refer to or incorporate information on the specific chain of command and specify the overall responsibilities of supervisors and employees, and shall include, at a minimum, the following elements:

- Designation of a general supervisor who has the responsibility and authority to direct all hazardous waste operations.
- Designation of an SSO and health supervisor who has the responsibility and authority to implement and modify the HASP and verify compliance.
- All other personnel needed for hazardous waste Site operations and emergency response and their general functions and responsibilities.
- The lines of authority, responsibility, and communication.

The organizational structure shall be reviewed and updated as necessary to reflect the current status of Site operations.

- xiii. Key personnel and HAZWOPER training certifications.
- xiv. Employee training assignments including copies of 40-hour, 24-hour Supervised Field Activities, 8-hour Supervisors, and 8-hour Refresher Training Certificates for all contractor's and/or subcontractor's employees assigned to the Project.
- xv. PPE to be used by employees for each of the tasks and operations being conducted.
- xvi. Respirator fit test certificates for all contractor and/or subcontractor employees assigned to the Project.
- xvii. Medical Surveillance Requirements: Medical clearance certificates for all contractor's and/or subcontractor's employees assigned to the Project.
- xviii. Site control measures for purposes of, including but not limited to:

- Preventing unqualified or unprotected workers from entering restricted areas;
  - Preventing tracking of contaminants out of the Site;
  - Maintaining log of employees on and visitors to the Site;
  - Delineating hot, cold and support zones;
  - Locating personnel and equipment decontamination zones; and
  - Communicating routes of escape and gathering points.
- xix. An emergency response plan for safe and effective responses to emergencies, including the necessary PPE and other equipment.
- xx. Confined space entry procedures (if applicable).
- xxi. A spill containment program.
- n. A site specific CHASP to protect the public.
  - i. The site-specific CHASP shall include, at a minimum, a plan for:
    - Controlling public access to the site during construction.
    - Cleaning up any contaminated materials spilled along the haul route.
    - Conducting a Community Air Monitoring Program to protect receptors from airborne contaminants released as a result of work activities.
  - ii. Real time, continuous monitoring for VOCs and particulate matter (dust) during all ground intrusive activities at the site. Monitoring shall be conducted at the perimeter of each work area.
  - iii. VOCs shall be monitored at the downwind perimeter of the immediate work area (i.e. the exclusion zone) on a continuous basis. Upwind concentrations shall be measured at the start of each workday and periodically thereafter to establish background levels. VOC monitoring shall be conducted using an appropriate PID capable of calculating fifteen-minute running average concentrations. These averages will be compared to the action

levels specified below. The PID shall be calibrated at least daily using the span calibration gas recommended by the manufacturer.

- iv. Temporarily halt work activities but continue VOC monitoring if the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average. If the total organic vapor level decreases (per instantaneous readings) below 5 ppm over background, work activities may be resumed with continued monitoring.
- v. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities shall be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities may resume provided that the total organic vapor level 61 meters (200 feet) downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 6.1 meters (20 feet), is below 5 ppm over background for the 15-minute average.
- vi. If the organic vapor level is above 25 ppm at the perimeter of the work area, all work activities shall be stopped and NYSTA/NYSCC shall be notified.
- vii. All 15-minute average readings shall be recorded and made available for review by NYSTA/NYSCC, NYSDEC or NYSDOH. Instantaneous readings, if any, used for decision purposes shall also be recorded.
- viii. Particulate concentrations shall be monitored continuously at the downwind perimeter of the work area during all ground intrusive activities. Real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) shall be used for the particulate monitoring. The equipment shall be equipped with an audible alarm to indicate an exceedence of the action levels specified below. Any fugitive dust migration shall also be visually assessed during all work activities.
- ix. If the downwind PM-10 particulate level is 0.1 milligrams per cubic meter ( $\text{mg}/\text{m}^3$ ) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, dust suppression techniques shall be employed. Work may continue with dust suppression techniques provided that

downwind PM-10 particulate levels do not exceed  $0.15 \text{ mg/m}^3$  above the upwind level and provided that no visible dust is migrating from the work area.

- x. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than  $0.15 \text{ mg/m}^3$  above the upwind level, work shall be halted and a re-evaluation of activities initiated. Work may resume when dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within  $0.15 \text{ mg/m}^3$  of the upwind level and in preventing visible dust migration.
- xi. All particulate monitoring measurements readings will be recorded and made available for review by NYSTA/NYSCC, NYSDEC and the NYSDOH.

NYSTA/NYSCC will review the contractor's and/or subcontractor's Work Plan to determine if the topics covered by the Work Plan conform to the requirements of the project. The NYSDEC review comments will be incorporated into the NYSTA/NYSCC review. Upon completion of the review, the Work Plan will be either accepted or returned to the contractor and/or subcontractor for revision.

The contractor and/or subcontractor shall be solely responsible for the means, methods, techniques, procedures of construction, and complying with regulatory standards and standards of good practice. NYSTA/NYSCC acceptance of the Work Plan shall not relieve the contractor and/or subcontractor his responsibility.

## **APPENDIX H – GENERIC EXCAVATION WORK PLAN**

### **A-1 NOTIFICATION**

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the Department. Currently, this notification will be made to:

John Spellman, P.E.  
Project Manager  
NYSDEC Division of Environmental Remediation  
Remedial Bureau C  
625 Broadway  
Albany, NY 12233

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control,
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work,
- A summary of the applicable components of this EWP,
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120,
- A copy of the contractor's health and safety plan, in electronic format,

- Identification of disposal facilities for potential waste streams,
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

## **A-2 SOIL SCREENING METHODS**

Visual, olfactory and instrument-based soil screening will be performed by a qualified environmental professional during all remedial and development excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal, material that requires testing, material that can be returned to the subsurface, and material that can be used as cover soil.

## **A-3 STOCKPILE METHODS**

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Erosion checks will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC.

## **A-4 MATERIALS EXCAVATION AND LOAD OUT**

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.



The owner of the property and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and Environmental Easement or Deed Restrictions on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or Easement or Deed Restrictions on the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

#### **A-5 MATERIALS TRANSPORT OFF-SITE**

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks will be washed prior to leaving the site. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Truck transport routes are as follows: [describe route and provide map]. All trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport

through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; [(g) community input [where necessary]]

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

#### **A-6 MATERIALS DISPOSAL OFF-SITE**

All soil/fill/solid waste excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

Soil that is excavated as part of any future development that cannot be used as fill below the cover system will be further characterized prior to transportation for off-site for disposal at a permitted facility. Any stockpiled soils will be placed on, and covered with, at a minimum 6 millimeter (mil) polyethylene sheeting for subsequent characterization and disposal in accordance with NYSDEC Spill Technology and Remediation Series (STARS) Memorandum #1. For excavated soil that will be sent for off-site disposal, with or without visual evidence of contamination (i.e., staining or elevated photoionization detector (PID) measurements), a minimum of one composite sample and a duplicate sample will be collected for each 100 cubic yards of stockpiled soil.

The composite sample will be collected from five locations within each stockpile. A duplicate composite sample will also be collected. PID measurements will be recorded for each of the five individual locations. One grab sample will be collected from the individual location with the highest PID measurement. If none of the five individual sample locations exhibit PID readings, one location will be selected at random. The composite sample will be analyzed by a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified laboratory for pH (EPA Method 9045C), TCL SVOCs, pesticides, PCBs, and TAL metals plus cyanide. The grab sample will be analyzed for TCL VOCs.

Soil samples will be composited by placing equal portions of soil from each of the five composite sample locations into a pre-cleaned, stainless steel (or Pyrex glass) mixing bowl. The soil will be thoroughly homogenized using a stainless steel scoop or trowel and transferred to pre-cleaned jars provided by the laboratory. Sample jars will then be labeled and a chain-of-custody form will be prepared.

Additional characterization sampling for off-site disposal may be required by the disposal facility. To potentially reduce off-site disposal requirements/costs, the owner or site developer may also choose to characterize each stockpile individually. If the analytical results indicate that concentrations exceed the standards for Resource Conservation and Recovery Act (RCRA) characteristic waste, the material will be considered a hazardous waste and must be properly disposed off-site at a permitted disposal facility within 90 days of excavation. If the analytical results indicate that the

soil is not a hazardous waste, the material will be properly disposed off-site at a permitted non-hazardous waste facility. Stockpiled soil cannot be transported on or off-site until the analytical results are received.

#### **A-7 MATERIALS REUSE ON-SITE**

Soil excavated at the site may be reused as backfill material on-site provided it contains no visual or olfactory evidence of contamination, and it is placed beneath a cover system component (subject to NYSDEC approval). Excavated on-site soil which appears to be visually impacted shall be sampled and analyzed. If analytical results indicate that the contaminants, if any, are present at concentrations below the approved NYSDEC standards and guidance values, the soil can be used as backfill on-site.

The qualified environmental professional will ensure that procedures defined for materials reuse in the approved EWP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for re-use on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

#### **A-8 FLUIDS MANAGEMENT**

All liquids to be removed from the site, including excavation dewatering and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Unless approved otherwise by NYSDEC, dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the site, but will be managed off-site.

Discharge of water generated during large-scale construction or dredging activities to surface waters (i.e. a local pond, stream or river) will be performed under a State Pollutant Discharge Elimination System (SPDES) permit and/or applicable dredge permitting regulations.

#### **A-9 COVER SYSTEM RESTORATION**

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the ROD. The demarcation layer will be replaced to provide a visual reference to the top of the 'Remaining Contamination Zone', the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this Site Management Plan. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the 'Remaining Contamination. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in any updates to the Site Management Plan.

#### **A-10 BACKFILL FROM OFF-SITE SOURCES**

Any off-site fill material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of contamination. All off-site fill material, (regardless of whether it is for the soil cover or for contouring below the cover), brought to DSA-1 shall satisfy 6NYCRR Section 375-6.7(d). This includes not exceeding the soil cleanup objectives for the lower of the protection of groundwater or the protection of public health - commercial. At least one representative composite sample per off-site source should be collected. The sample should be analyzed for Target Compound List (TCL) VOCs, TCL SVOCs, PCBs, Target Analyte List (TAL) metals plus cyanide, and TCL pesticides. The soil will be acceptable for use as cover material provided that all parameters meet the applicable NYSDEC standards and guidance values.

Virgin soils brought in from off-site locations should be subject to collection of one representative composite sample per source. The sample should be analyzed for TCL

VOCs, SVOCs, pesticides, PCBs, arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, and cyanide. The soil will be acceptable for use as backfill provided that all parameters meet the applicable NYSDEC standards and guidance values.

Non-virgin soils brought in from off-site locations will be tested via collection of one composite sample per 500 cubic yards of material from each source area.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

#### **A-11 STORMWATER POLLUTION PREVENTION**

Stormwater pollution prevention during any site excavation shall comply with the latest versions of the Guidelines for Urban Erosion and Sediment Control, the New York State Stormwater Management Design Manual, the New York State SPDES General Permit for Construction Stormwater Discharges, and the project specific Storm Water Pollution Prevention Plan (SWPPP), as applicable. Barriers and erosion checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and erosion checks functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters

Silt fencing or erosion checks will be installed around the entire perimeter of the construction area.

#### **A-12 CONTINGENCY PLAN**

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for full a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the periodic reports prepared pursuant to Section 5 of the SMP.

#### **A-13 COMMUNITY AIR MONITORING PLAN**

The general requirements of the Community Health and Safety Plan (CHASP), including a community air monitoring program (CAMP), are identified in the Generic HASP (see Appendix G). These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations.

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

#### **A-14 ODOR CONTROL PLAN**

The odor control plan shall be capable of controlling emissions of nuisance odors off-site. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures may include but are not necessarily limited to: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances may include but are not necessarily limited to: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

#### **A-15 DUST CONTROL PLAN**

Where appropriate, a dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.



- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

#### **A-16 OTHER NUISANCES**

Where appropriate, a plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

If the Site location is subject to applicable local noise control ordinances, a plan will be developed and utilized by the contractor for all remedial work to ensure compliance.