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Site Management Plan Errata Sheet

1050-1088 Niagara Street Site,
BCP Site No. C915277
Buffalo, New York

August 2026 **Reference and/or Page No.**	**Section and Current Text**	**Revision**	**Date**
Pg. iii	Table 7 SVE System Monitoring (In text) Table 8 SVE System Sampling (Int ext)	Reference to tables has been removed	8/13/2026
Pg. iii	Figure 9 SVE System Layout Figure 10 SVE System Process Flow Schematic and Detail	Reference to figures has been removed	8/13/2026
Pg. iv	Appendix H SVE O&M Manual	Reference to the appendix has been removed; subsequent appendix designations have been revised accordingly	8/13/2026
Pg. ES-1	Executive Summary: Engineering Controls: 2. A soil vapor extraction system (SVE) has been installed at the Site to address nuisance petroleum odors in soil/fill and groundwater. Discontinuation will be based primarily on VOC concentrations in air and soil samples as compared to initial VOC samples, and the	Text has been removed	8/13/2026

	potential benefit of continued SVE operation.		
Pg. ES-1	Executive Summary: Monitoring: 1. SVE System; Monthly	Text has been removed	8/13/2026
Pg. ES-2	Executive Summary: Maintenance: 1. Blower maintenance; Monthly	Text has been removed	8/13/2026
Pg. ES-2	Executive Summary: Reporting: 1. Groundwater Data (electronically); Semi-Annually	Reporting frequency has been updated to: Annually	8/13/2026
Pg. 5	Section 2.1: The Site consists of three (3) adjoining parcels totaling 2.7 acres, located in the City of Buffalo, Erie County, New York and are identified on the Erie County Tax Map as: • 1050 Niagara Street, S.B.L. #99.49-6-2, 1.08 acres • 1054 Niagara Street, S.B.L. #99.49-6-10, 0.05 acres • 1088 Niagara Street, S.B.L. #99.49-1-15, 1.59 acres	Text revised to: The Site consists of two (2) adjoining parcels totaling 2.72 acres, located in the City of Buffalo, Erie County, New York and are identified on the Erie County Tax Map as: • 1050 Niagara Street, S.B.L. #99.41-1-15.21, 2.05 acres • 1088 Niagara Street, S.B.L. #99.41-1-15.1, 0.67 acres Reference to 1054 Niagara Street has been removed.	8/13/2026
Pg. 5	Section 2.2.1: The Site is currently improved with a three-story building, located on the 1050-1054 Niagara Street parcels	Reference to 1054 (Niagara) has been removed	8/13/2026

Pg. 20	Section 3.3.2: entire section	All text has been removed; subsequent sections and subsections has been renumbered accordingly.	8/13/2026
Pg. 20	Section 3.3.3: entire section	All text has been removed; subsequent sections and subsections has been renumbered accordingly.	8/13/2026
Pg. 21	Section 3.3.3.2: entire section	All text has been removed; subsequent sections and subsections has been renumbered accordingly.	8/13/2026
Pg. 24-26	Section 4.3: entire section	All text from this section and subsections has been removed; subsequent sections and subsections have been renumbered accordingly.	8/13/2026
Pg. 26-27	Section 4.4: Groundwater monitoring will be performed semi-annually to assess the performance of the remedy. Specifically, TMW-3, MW-3, MW-4, MW-5r and MW-6	Reference to TMW-3, MW-4, and MW-5r have been removed from the text and Table 9. Table 9 is now Table 7.	8/13/2026
Pg. 29-33	Section 5.1, 5.2, 5.3, and subsections: entire section	All text has been removed. Section 5.1 has been revised as follows: The site remedy does not rely on any mechanical systems, such as groundwater treatment systems, sub-slab	8/13/2026

		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.	
Pg. 35	Section 6.2.2: entire section	All text has been removed.	8/13/2026
Pg. 37	Section 7.1: references to Table 10	Table 10 is now Table 8	8/13/2026
PDF pg. 71-72	--	Figure 9 and Figure 10 have been removed	8/13/2026
PDF pg. 273-442	--	Appendix H has been removed; subsequent appendix references have been updated.	8/13/2026
PDF pg. 467-468	--	SVE System Logs have been removed	8/13/2026

Altered groundwater sampling schedule; soil vapor extraction (SVE) system shut-down; groundwater and SVE well decommissioning; and 2025 corrective measures, including, invasive knotweed, soil cover system repair, and hardscape cover system repair have been completed in accordance with the following Department-approved work plans, Periodic Review Reports (PRRs), and Department acceptances letters/correspondence.

- November 2, 2023: Site Management (SM) – Periodic Review Report (PRR) Response Letter; approval for decommissioning remaining SVE wells and vapor monitoring point.
- June 24, 2025: Notification Addendum – 2025 Corrective Actions Work Plan.
- July 23, 2025: email correspondence approving decommissioning of MW-5R.
- August 7, 2025: email correspondence approving the Notification Addendum – 2025 Corrective Actions Work Plan, dated June 24, 2025, which outlined soil cover system repair to a portion of the western embankment, tree removal at the southwest corner of the southern building, SVE and vapor monitoring point decommissioning, and asphalt cover system repair within the parking lot and commercial drive-thru areas.

- October 2025: Periodic Review Report; summarizing corrective actions along the western embankment; asphalt repair; decommissioning of SVE wells, vapor monitoring point, and MW-5R; and removal of woody vegetation.
- November 24, 2025: Periodic Review Report (PRR) Response Letter; approval to remove TMW-3 from the sampling protocol.

ATTACHMENT A

REVISED SITE MANAGEMENT PLAN PAGES

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EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by this Site Management Plan:

Site Identification: 1050-1088 Niagara Street Site – C915277

Institutional Controls:	1. The property may be used for restricted residential, commercial, and industrial use as described in 6 NYCRR Part 375-1.8(g), although land is subject to local zoning laws;
	2. All ECs must be inspected at a frequency and in a manner defined in the SMP.
	3. The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Erie County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.
	4. Compliance with the Department approved Site Management Plan and Periodic Review Reporting is required.
	5. The remedial party or site owner is required to complete and submit a periodic certification of institutional and engineering controls to the Department in accordance with 6NYCRR Part 375-1.8(h)(3).
Engineering Controls:	1. A site cover has been placed over the site in all areas exceeding applicable SCOs. The cover is either a hardscape (asphalt and concrete, building) and/or a minimum of 24-inches of depth of material meeting the requirements as set forth in 6NYCRR Part 375—6.7(d) for restricted residential use.
	~~2. A soil vapor extraction system (SVE) has been installed at the Site to address nuisance petroleum odors in soil/fill and groundwater. Discontinuation will be based primarily on VOC concentrations in air and soil samples as compared to initial VOC samples, and the potential benefit of continued SVE operation.~~

Inspections:	Frequency
1. Cover inspection	Annually
Monitoring:	
1. ~~SVE System~~	~~Monthly~~
2. Groundwater Monitoring	Semi-Annual

Site Identification: 1050-1088 Niagara Street Site – C915277

~~Maintenance:~~	
~~1. Blower maintenance~~	~~Monthly~~
Reporting:	
1. Groundwater Data (electronically)	~~Semi-~~Annually
2. Annual Site Inspection	Annually
3. Periodic Review Report	Annually

Further descriptions of the above requirements are provided in detail in the latter sections of this Site Management Plan (SMP).

2.0 SUMMARY OF PREVIOUS INVESTIGATION & REMEDIAL ACTIONS

2.1 Site Location and Description

The Site consists of ~~three~~ two (~~3~~2) adjoining parcels totaling 2.72 acres, located in the City of Buffalo, Erie County, New York and are identified on the Erie County Tax Map as:

- **1050 Niagara Street, S.B.L. #99.4~~9-6-2~~1-1-15.21, ~~1.08~~2.05 acres**
- ~~**1054 Niagara Street, S.B.L. #99.49-6-10, 0.05 acres**~~
- **1088 Niagara Street, S.B.L. #99.4~~9-1-15~~1-1-15.1, ~~1.59~~0.67 acres**

The site bounded by Albany Street (paper street) to the north with commercial use properties beyond; commercial use properties to the south; Niagara Street to the east with residential and commercial properties beyond; and utility, rail line, and NYS Thruway (I-190) to the west, with the Black Rock Canal (Niagara River) beyond (see Figure 2). The boundaries of the site are more fully described in Appendix A – Environmental Easement.

2.2 Physical Setting

2.2.1 Land Use

The Site is currently improved with a three-story building, located on the 1050~~-1054~~ Niagara Street parcels, and a newly constructed two-story building and parking areas on the 1088 Niagara Street parcel. Based on the recently approved City of Buffalo Unified Development Ordinance (January 2017), the Site is zoned Urban Core (N-1D, N-1E and N-1S), which is a mixed use commercial and residential designation. Based on the location of the Site to downtown Buffalo, N-1E, Downtown Edge, is likely the most applicable. It is described as a "Full-Block, zero setbacks, zero side yard development with consistent pedestrian-orientated ground floor frontages and significant vertical mixed-use". The Site is currently utilized for commercial and restricted-residential uses.

The properties adjoining the Site and in the neighborhood surrounding the Site primarily include commercial and residential properties. The properties immediately north

The Excavation Work Plan (EWP) provided in Appendix B outlines the procedures required to be implemented in the event the cover system is breached, penetrated, or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection of this cover are provided in the Monitoring and Sampling Plan included in Section 4.0 of 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 associated Community Air Monitoring Plan (CAMP) prepared for the site and provided in Appendix G.

~~*3.3.2 Soil Vapor Extraction (SVE) System*~~

~~Based on the presence of nuisance petroleum VOCs and TICs within the deeper subsurface soil/fill, and presence of petroleum related volatile compounds in groundwater, a soil vapor extraction (SVE) system was installed on-Site. The SVE system applies a vacuum to the three (3) installed SVE extraction wells and draws air through the soil. The withdrawn air carries volatile compounds (VOCs and SVOCs including TICs, and nuisance odors) from the subsurface and is treated by passing the air stream through granular activated carbon (GAC) filters to remove the extracted contaminants prior to being discharged to the atmosphere.~~

~~Procedures for operating and maintaining the SVE system are documented in the Operation and Maintenance Plan (Section 5.0 of this SMP) and Appendix H contains an SVE System Operations and Maintenance Manual. Figure 9 shows the location of the SVE system components installed for the site and SVE system construction detail and process flow schematic.~~

~~*3.3.3 Criteria for Completion of Remediation/Termination of Remedial Systems*~~

~~Generally, remedial processes are considered completed when 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 6.4 of NYSDEC DER-10.~~

~~3.3.3.1~~3.3.1.1 Cover System

The composite cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in accordance with this SMP in perpetuity.

~~***3.3.3.2 Soil Vapor Extraction System (SVE) System***~~

~~The SVE system will not be discontinued unless prior written approval is granted by the NYSDEC. In the event that monitoring data indicates that the SVE system may no longer be required, a proposal to discontinue the system will be submitted by the remedial party. Conditions that may warrant discontinuing the SVE system include contaminant concentrations in groundwater and/or soil that: (1) reach levels that are consistently below ambient water quality standards or the site SCGs, as appropriate; (2) have become asymptotic to a low level over an extended period of time, as accepted by the NYSDEC; or (3) the NYSDEC has determined that the SVE system has reached the limit of its effectiveness. This assessment will be based in part on post-remediation contaminant levels in groundwater collected from monitoring wells located throughout the site. Systems will remain in place and operational until permission to discontinue their use is granted in writing by the NYSDEC.~~

3.3.~~3.3~~1.2 Groundwater Remedial Measures

Groundwater treatment was a specific remedial element in the Decision Document approved for the site. The completed IRMs removed historic USTs and petroleum contaminated soil/fill. Additionally, a SVE system was installed to remove residual degraded petroleum source within the vadose and smear zone prior to in-situ groundwater treatment. The treatment of residual degraded petroleum contamination within the vadose and smear zone, prior to implementation of a groundwater treatment, is important to limit the potential for recontamination.

The SVE system is expected to enhance groundwater contaminant degradation and improve groundwater quality. Initial groundwater data collected after completion of the IRMs and installation of the SVE shows a reduction in VOC groundwater concentrations. The impact of the SVE system on groundwater concentrations will be assessed during vadose zone source removal relative to achieving the Site's RAOs for groundwater.

If groundwater contamination is not reduced to meet the groundwater RAOs, in-situ groundwater treatment will be implemented per the approved Decision Document

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the site, verbal notice to the NYSDEC must be given by noon of the following day. In addition, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the IC/ECs implemented at the site by a qualified environmental professional, as determined by the NYSDEC. Written confirmation must be provided to the NYSDEC within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

~~4.3 SVE System Monitoring and Sampling~~

~~*4.3.1 SVE System Monitoring*~~

~~Monitoring of the SVE will be performed on a routine basis, as identified in Table 7 – SVE System Monitoring Requirements and Schedule (see below). Modification to the frequency or sampling requirements will require approval from the NYSDEC. A visual inspection of the complete system will be conducted during each monitoring event. Unscheduled inspections and/or sampling may take place when a suspected failure of the SVE system has been reported or an emergency occurs that is deemed likely to affect the operation of the system. SVE system components to be monitored include, but are not limited to, the components included in Table 7 below.~~

~~Table 7 – SVE System Monitoring Requirements and Schedule~~

~~Soil Vapor Extraction System~~	~~Monitoring Parameter~~	~~Operating Range~~	~~Monitoring Schedule~~
	~~Vacuum Blower~~	~~60-90 in WC~~	~~Monthly~~
	~~Air Velocity at SVE Main Intake~~	~~1100-1250 fps~~	~~Monthly~~
	~~SVE Influent Air Concentrations~~	~~12.45 mg/m3 (total VOC baseline);~~ ~~0.1-16 ppm~~	~~Monthly~~
	~~Effluent Air Concentrations~~	~~ND (baseline);~~ ~~0.0 ppm~~	~~Monthly~~

	Condensate Holding Tank	Dry to date	Monthly
	SVE Extraction Well and VMP Vacuum Readings	60-70 in WC	Monthly

A complete list of components to be inspected is provided in the Inspection Checklist, provided in Appendix J - Site Management Forms. If any equipment readings are not within their specified operation range, any equipment is observed to be malfunctioning or the system is not performing within specifications; maintenance and repair, as per the Operation and Maintenance Plan, is required immediately.

4.3.2 SVE System Sampling

Samples shall be collected from the SVE system on a routine basis. Sampling locations, required analytical parameters and schedule are provided in Table 8 – SVE System Sampling Requirements and Schedule below. Modification to the frequency or sampling requirements will require approval from the NYSDEC.

Table 8 – SVE System Sampling Requirements and Schedule

Sampling Location	Field Parameters	Analytical Parameters	Schedule
	VOCs- PID Readings	VOCs (Method TO-15)	
SVE Blower Intake	X	X	Field – Bi-Weekly Analytical – Annually
SVE System Exhaust (post-GAC)	X	X	Field – Bi-Weekly Analytical – Annually; or if exhaust field readings are greater than 5 ppm.

Detailed sample collection and analytical procedures and protocols are provided in Appendix I – Quality Assurance Project Plan.

~~*4.3.3 SVE Post-Remediation Media Monitoring and Sampling*~~

~~Post SVE treatment sampling will be performed in accordance with the SVE discontinuation verification plan which will be prepared and submitted to the NYSDEC to assess completion of the remedial actions.~~

~~The SVE system will not be discontinued unless prior written approval is granted by the NYSDEC. SVE discontinuation will be based on the reduction of volatile concentrations in the untreated air samples, and the rate of mass removal of volatile organics by the SVE system. Once monitoring data indicates that the SVE system is no longer effective (i.e., when the mass removal of contaminants stabilizes to a diminished rate for several monitoring periods), a proposal to discontinue the SVE system will be submitted. The proposal will include a specific media sampling plan, identifying the location, depth, and number of soil/fill samples to be collected.~~

~~4.4~~4.3 Groundwater Sampling

Groundwater monitoring will be performed semi-annually to assess the performance of the remedy. Specifically, ~~TMW-3,~~ MW-3~~, MW-4, MW-5r~~ and MW-6 will be sampled and analyzed ~~semi-~~annually for 2 years (i.e., 4 events) after which time a request may be made to the Department to modify the sampling frequency by the Site owner. Modification to the frequency or sampling requirements will require approval from the NYSDEC. Samples will be collected and analyzed as described below. Figure 3 identifies the monitoring well locations and representative isopotential map. Well depths and screened intervals for the groundwater monitoring network are provided below. RI monitoring well construction logs are included in Appendix E.

Table ~~9~~ 7 – Monitoring Well Construction Details

Monitoring Well ID	Coordinates (Northing/Easting)	Well Diameter (inches)	Elevation			
			Casing	Surface	Screen Top	Screen Bottom
~~TMW-3 *(Building basement)~~	~~1061284.013/ 1063178.973~~	~~1~~	~~–~~	~~Basement Floor~~	~~8 fbs~~	~~13 fbs~~

MW-3	1061401.646/ 1063208.683	2	613.44	614.21	585.94	580.94
~~MW-4~~	~~1061311.300/ 1063198.739~~	~~2~~	~~616.59~~	~~614.65~~	~~593.09~~	~~588.09~~
~~MW-5r~~	~~1061350.240/ 1063327.075~~	~~2~~	~~615.62~~	~~616.24~~	~~600.12~~	~~595.12~~
MW-6	1061119.559/ 1063438.703	2	622.01	622.34	614.74	604.74

~~Note: TMW-3 screen depths in feet below surface (fbs).~~

If biofouling or silt accumulation occurs in the on-site monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced, if an event renders the wells unusable.

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC will be notified prior to any repair or decommissioning of any monitoring well for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent Periodic Review Report. Well decommissioning without replacement will be done only with the prior approval of the NYSDEC. Well abandonment will be performed in accordance with NYSDEC's guidance entitled "CP-43: Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be replaced in kind in the nearest available location, unless otherwise approved by the NYSDEC.

The sampling frequency may only be modified with the approval of the NYSDEC. This SMP will be modified to reflect changes in sampling plans approved by the NYSDEC.

Deliverables for the groundwater monitoring program are specified in Section 7.0 – Reporting Requirements.

~~4.4.1~~4.3.1 Groundwater Sampling Protocol

Field personnel will sample monitoring wells using a submersible pump with dedicated pump tubing following low-flow/minimal drawdown purge and sample collection procedures.

5.0 OPERATION & MAINTENANCE PLAN

5.1 General

The site remedy does not rely on any mechanical systems, such as groundwater treatment systems, 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.~~This Operation and Maintenance Plan provides a brief description of the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the site. This Operation and Maintenance Plan:~~

- ~~Includes the procedures necessary to allow individuals unfamiliar with the site to operate and maintain the SVE system;~~
- ~~Will be updated periodically to reflect changes in site conditions or the manner in which the SVE system is operated and maintained.~~

~~Further detail regarding the Operation and Maintenance of the SVE system is provided in Appendix H - Operation and Maintenance Manual. A copy of this Operation and Maintenance Manual, along with the complete SMP, is maintained at the site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of this SMP.~~

~~5.2 Remedial System Performance Criteria~~

~~SVE Design Criteria~~	~~Units~~
~~Blower~~	~~200 SCFM at 40" WC @blower inlet~~
~~Vacuum at inlet to blower~~	~~60-90 inches WC~~
~~Pressure at SVE Wells and VMP~~	~~60-70 inches WC~~

5.3 Operation and Maintenance of SVE System

The following sections provide a description of the operations and maintenance of the SVE system. Cut-sheets and as-built drawings for SVE system are provided in Appendix H - Operations and Maintenance Manual.

5.3.1 General

The SVE system is comprised of two main components: a collection system, constructed of a series of vertical extraction wells, observation piezometers and extraction well manifold piping; and a trailer-mounted mechanical SVE system. Figures 9 and 10 includes a layout of the SVE collection system and well construction details; and a process flow schematic of the SVE system. Three (3) collection wells, identified as SVE-1 through SVE-3, and one (1) vacuum monitoring point (VMP) were installed across the site.

The mobile SVE system is housed in a utility trailer with double end doors, a side-mounted man door with entry alarm, two crank-open skylights, a hazardous location thermostatically controlled electric heater and a hazardous location thermostatically controlled ventilation fan with explosion- proof motor.

The SVE equipment layout and process and instrumentation drawings are presented in the manufacturer's O&M manual for the SVE system, which is included in Appendix H. The SVE process vacuum is generated by a belt-driven, 7.5 HP rotary-lobe positive displacement blower. Manifold piping from the SVE wells enters the SVE trailer and is connected to 4-inch, Sch. 40 steel intake piping via a flange fitting. Vacuum in the line is controlled to within design limits via two ball valves. One of the valves is located on the intake line and serves to increase vacuum and decrease flow by constricting the 4-inch intake piping. The second valve is located on a tee fitting within the intake line and reduces vacuum by allowing for entrance of dilution air, if required. A vacuum gauge, connected to the system control panel, measures inlet vacuum changes as these valves are adjusted to assure that the blower is operated within required minimum vacuum limits (approx 25 in. water column). A vacuum switch, wired to the system control panel, shuts down the system in the event that inlet vacuum is too low. Inlet air is then passed through a 60-gallon capacity moisture separator to remove excess condensate/water vapor, followed by an inline air filter. A fixed pitot tube on the intake line provides for vacuum and velocity measurement as a surrogate for

~~system airflow measurement. A mechanical vacuum relief valve is located between the air filter and blower to prevent excess vacuum buildup. Intake air then passes through the blower and is discharged via a 3-inch Sch. 40 steel line fitted with a discharge silencer. A mechanical high pressure relief valve and high pressure switch are located on the discharge line to prevent excess backpressure from damaging the blower. Condensate trapped in the moisture separator is periodically pumped to a 30-gallon storage drum via a ½ HP, self-priming centrifugal pump. Condensate pump-out from the moisture separator is automatically controlled by level sensors in the tank sight gauge.~~

~~All SVE mechanical and electrical equipment are single phase, 120/240 VAC. SVE process conditions are controlled by an externally-mounted system control panel. In addition, the blower is controlled by a programmable variable frequency drive (GE Fuji Electric). Remote notification of alarm conditions is provided via an externally-mounted, remote process monitor/auto-dialer.~~

~~Monitored system operating conditions which trigger a local (red panel light) and remote (common autodialer channel) alarm condition include: low air vacuum, high air pressure, moisture separator tank high level, condensate tank high level, and heater/exhaust fan failure. With the exception of heater/exhaust fan failure, these alarm conditions automatically shut down the SVE system. A trailer entry (security) relay also triggers a local and remote alarm, but does not cause system shutdown. Blower and condensate pump failure (e.g., due to thermal overload, power loss, or manual shut down) also triggers the autodialer. If the SVE system alarm is activated the autodialer will contact TurnKey. Based on the alarm fault, TurnKey will respond and/or contact the appropriate repair vendor (e.g. electrician, mechanical repair service).~~

~~*5.3.2 System Start-Up and Testing*~~

~~The following procedure was followed for the start-up of the SVE system in August 2017 and should be followed in the event the system needs to be restarted.~~

~~Upon initial startup of the system, vacuum regulating ball valves for each extraction well should be opened to approximately 25%. The SVE blower inlet ball valve should be opened 75%, with the inlet dilution air valve closed. The system blower and condensate pump should then be placed in automatic mode, and the inlet pressure should be monitored to assure~~

~~it reaches a minimum of 25 inches water column (in. WC) operating requirement before automatic shut-down, but does not exceed 100 inches due to potential for upwelling of groundwater from the vacuum extraction wells. If inlet pressure does not reach the minimum requirement, close the inlet ball valve to 50% and restart the system. If minimum vacuum is still not achieved, the SVE well dilution valves should be further closed and the process repeated.~~

~~Once the system is running, vacuum should be checked at each of the wellheads while a second individual monitors conditions in the trailer. Tubing from the vacuum side of the portable gage should be attached to the fitting located at the wellheads, which will then be opened to allow a vacuum reading. If the vacuum reading is above 25 in. WC, no adjustment of the vacuum-regulating valve on the well is necessary. Otherwise, the vacuum regulating valve should be opened to decrease vacuum or closed to increase vacuum. This process should then be repeated for each of the remaining SVE wells. The vacuum adjustment process is iterative and may require several sequences until the system is properly balanced and all wells are at or near the target vacuum.~~

~~During the vacuum adjustment period, the individual in the trailer should monitor conditions to assure that the pressure on the blower inlet line is maintained between 25 and 80 in. WC. Adjustment of the SVE blower inlet ball valve and/or the inlet dilution air valve may be necessary to assure adequate vacuum for safe blower operation. If either of these valves are adjusted, it will be necessary to recheck and possibly readjust the vacuum at each of the wellheads.~~

~~After SVE system has been adjusted, the system should be allowed to operate for a minimum period of 48 hours to reach steady-state conditions. Vacuum should then be checked at each SVE well, vacuum monitoring point (VMP), and adjacent monitoring wells.~~

~~During normal operation, the system will run continuously. If a process alarm condition occurs, it must be acknowledged after the problem is corrected in order for the system to restart.~~

~~*5.3.3 Routine System Operation and Maintenance*~~

~~The SVE system is designed to require little maintenance over the expected duration of use at the 1050-1088 Niagara Street Site. The blower bearing housing is oil-filled and will~~

~~be checked once per month by removing the side-mounted overflow plug, which is located approximately 3-inches from the bottom of the housing. If the level is below the overflow, SAE 40 weight oil should be added through the top fill port on the housing. Grease fittings for the blower shaft should be topped off periodically (i.e. every 2-3 months). The SVE Manufacturer's O&M manual is included in Appendix H.~~

~~*5.3.4 System Monitoring Devices and Alarms*~~

~~The SVE system is equipped with a remote process monitor/auto-dialer. Monitored system operating conditions which trigger a local (red panel light) and remote (common autodialer channel) alarm condition include: low air vacuum, high air pressure, moisture separator tank high level, condensate tank high level, and heater/exhaust fan failure. With the exception of heater/exhaust fan failure, these alarm conditions automatically shut down the SVE system. A trailer entry (security) relay also triggers a local and remote alarm, but does not cause system shutdown. Blower and condensate pump failure (e.g., due to thermal overload, power loss, or manual shut down) also triggers the autodialer. If the SVE system alarm is activated the autodialer will contact TurnKey. Based on the alarm fault, TurnKey will respond and/or contact the appropriate repair vendor (e.g. electrician, mechanical repair service).~~

~~The SVE system has a warning device to indicate that the system is not operating properly. In the event that warning device is activated, applicable maintenance and repairs will be conducted, as specified in the Operation and Maintenance Plan, and the SVE system will be restarted. Operational problems will be noted in the Periodic Review Report to be prepared for that reporting period.~~

Optimization (RSO), or at any time that the Project Manager feels appropriate, e.g. during significant maintenance events or in conjunction with storm recovery activities.

Modifications resulting from green remediation evaluations will be routinely implemented and scheduled to occur during planned/routine operation and maintenance activities. Reporting of these modifications will be presented in the PRR.

~~***6.2.2 Remedial Systems***~~

~~Remedial systems will be operated properly considering the current site conditions to conserve materials and resources to the greatest extent possible. Consideration will be given to operating rates and use of reagents and consumables. Spent materials will be sent for recycling, as appropriate.~~

6.3 Remedial System Optimization

A Remedial Site Optimization (RSO) study will be conducted any time that the NYSDEC or the remedial party requests in writing that an in-depth evaluation of the remedy is needed. An RSO may be appropriate if any of the following occur:

- The remedial actions have not met or are not expected to meet RAOs in the time frame estimated in the Decision Document;
- The management and operation of the remedial system is exceeding the estimated costs;
- The remedial system is not performing as expected or as designed;
- Previously unidentified source material may be suspected;
- Plume shift has potentially occurred;
- Site conditions change due to development, change of use, change in groundwater use, etc.;
- There is an anticipated transfer of the site management to another remedial party or agency; and
- A new and applicable remedial technology becomes available.

7.0 REPORTING REQUIREMENTS

7.1 Site Management Reports

All site management inspection, maintenance, and monitoring events will be recorded on the appropriate site management forms provided in Appendix J. These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including media sampling data and system maintenance reports, generated for the site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of Table ~~10~~ 8 and summarized in the Periodic Review Report.

Table ~~10~~8: Schedule of Monitoring/Inspection Reports

Task/Report	Reporting Frequency*
Groundwater Monitoring	Laboratory data provided electronically (semi-annual) and reported with the annual PRR.
Periodic Review Report	Annually, or as otherwise determined by the Department

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

All monitoring/inspections reports will include, at a minimum:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;
- Description of the activities performed;
- 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);
- 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.);

~~APPENDIX H~~

~~O&M MANUAL(S)~~

APPENDIX ~~I~~H

QUALITY ASSURANCE PROJECT PLAN (QAPP)

APPENDIX ~~J~~I

SITE MANAGEMENT FORMS