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Unicorn Management Consultants, LLC

September 7, 2023
Refer to OP-4593

Ms. Megan Kuczka
New York State Department of Environmental Conservation, Region 9
700 Delaware Ave
Buffalo, New York 14209

Subject: Former Roundhouse Area Investigation Workplan (updated)
Union Road Site, Erie County, Cheektowaga, NY
Inactive Hazardous Waste Disposal Site No. 915128

Dear Ms. Kuczka:

Pursuant to your correspondence of August 11, 2023, Unicorn Management Consultants, LLC (UMC) on behalf of American Premier Underwriters, Inc. (APU), is providing you with this updated Workplan for the Former Roundhouse Area Investigation. The previous Workplan, submitted for your review and approval in January 2023, proposed additional investigations at the site in order to i) confirm that the soil cover in the Restored Roundhouse Area is intact, and that a minimum of six (6) inches of soil is present, and ii) conduct an investigation of the Former Roundhouse Area in order to determine if residual Chemicals of Concern (COCs) are present at that location. A Site Map indicating key site features (including the locations of the restored Roundhouse and Former Roundhouse Areas) is provided as **Figure 1**.

The inspection of the soil cover in the Restored Roundhouse Area was completed on May 17, 2023. A summary of the findings, including photographs of ten (10) soil cover locations was forwarded to your attention on May 26, 2023. Moving forward, annual inspections of the Restored Roundhouse Area's cover system will be performed, and included as part of an updated Operation and Maintenance (O&M) plan for the site.

The proposed investigation of the Former Roundhouse (**Figure 2**) will be conducted in order to determine if the remaining soils in this area (if present) are impacted with any of the COCs listed below, and if their concentrations are below the New York State Department of Environmental Conservation (NYSDEC) soil cleanup objectives. Soils that are present between each of the concrete "spokes" of the Former Roundhouse will be specifically targeted as part of this investigation via excavation of several test pits. On August 30, 2023, the extent of the concrete structure within the Former Roundhouse Area was further investigated in order to determine specific sampling locations, following partial clearing of the existing vegetation in this area. The northern and western portions of the footprint of the former Roundhouse were located in areas that were generally observed to be more thickly wooded, with larger woody bushes and trees present. UMC also noted that a significant amount of fill material was present in the spaces between the concrete spokes of the Former Roundhouse. Fill materials included bricks, broken concrete and remnants of wooden beams. Where possible, sampling locations were selected to be in areas where this fill material was minimal, and outside of the more thickly wooded areas of the Former Roundhouse, as indicated on **Figure 2**. Each sampling location was marked with stakes/flags; photographs of each proposed sampling location is provided in the photo log below.

A total of eighteen (18) test pits will be excavated at the locations indicated in **Figure 2**, and if soil is present, grab samples will be obtained from these proposed locations. Test pit locations S-1 through S-16 will be located between the concrete spokes from the Former Roundhouse, while test pit locations S-17 and S-18 will be utilized to delineate soil to the west and north, respectively of the Former Roundhouse Area. Prior to conducting this investigation, UMC will submit a request for utilities location through the UDIG NY program.

Test pits at each of the proposed sampling locations will be excavated to a maximum depth of three (3) feet, or until the concrete sub-structure is encountered. Soils from various depths at each of the proposed sampling locations will initially be field-screened with a photoionization detector (PID). If elevated PID readings are encountered, the sample with the highest PID reading will be retained for laboratory analysis. Soils that have elevated PID readings, or that have obvious visual signs of contamination (i.e., staining) will be stockpiled on and covered with plastic sheeting having a thickness of 10-millimeters or greater. If necessary, UMC will arrange for the proper transport and disposal of the stockpiled soil. Otherwise, the excavated soils will be placed back into the test pits.

Sampling activities are tentatively scheduled to be conducted between September 11-15, 2023. Soil samples from each of the proposed sampling locations will be collected and shipped under appropriate laboratory protocols to ALS Environmental Laboratories in Rochester, NY (ALS) for the following analyses:

- Volatile Organic Compounds (VOCs) via method 8260;
- Semi-Volatile Organic Compounds (SVOCs) via method 8270;
- PCBs via method 8082;
- Pesticides via method 8081;
- Herbicides via method 8151; and
- Metals via methods 6010/7471

To ensure data quality, for every 20 environmental samples collected, one duplicate sample and one MS/MSD sample will be collected and submitted to the laboratory for analysis. A trip blank will also be included for Volatile Organic Compounds (VOCs) to ensure that cross contamination during shipment to the laboratory is not a concern. The samples will be sent to a third-party data validator. To prevent cross contamination during sampling, the sampling equipment will be decontaminated prior to, and between each sample. All investigative activities described herein will adhere to the current Operation and Maintenance Plan.

Following receipt of the laboratory analytical data, UMC will provide NYSDEC with a summary of the results from the proposed Roundhouse Area Investigation. The results of the quality control samples will be evaluated for data usability by a third party to demonstrate that the environmental samples are representative of site conditions.

During field sampling activities, a Community Air Monitoring Plan (CAMP) will be implemented in order to demonstrate protection of the nearby residents from airborne contaminants that may be produced during the proposed Site investigation activities. The CAMP was prepared in accordance with Appendix 1A of NYSDEC DER-10, and is included here as **Attachment 1**. If you have any questions regarding this proposed Workplan, please call me at 203-205-9000, ext. 13.

Sincerely,

Unicorn Management Consultants, LLC

Michael J. O'Connor, LEP
Manager of Environmental Projects
Union Road Remediation Project

Attachments

Cc: Andrea Caprio – NYSDEC
Phoebe Gittelson, Esq. – NYSDEC
Leia Schmidt, Esq. – NYSDEC
Johnathan Robinson – NYSDOH
Julia Kenney – NYSDOH
Charlotte Bethoney – NYSDOH
Francisco Trejo – Unicorn Management Consultants, LLC
M. Hill, Esq. – American Premier Underwriters, Inc.

PHOTO LOG

Clearing vegetation along the eastern side of the Former Roundhouse

Utility markout flags (white) and proposed sampling locations (pink) in cleared area

Proposed Sample Location S-1

Proposed Sample Location S-2

Proposed Sample Location S-3

Proposed Sample Location S-4

Proposed Sample Location S-5

Proposed Sample Location S-6

Proposed Sample Location S-7

Proposed Sample Location S-8

Proposed Sample Location S-9

Proposed Sample Location S-10

Proposed Sample Location S-11

Proposed Sample Location S-12

Proposed Sample Location S-13

Proposed Sample Location S-14

Proposed Sample Location S-15

Proposed Sample Location S-16

0 250 500 1,000 Feet

Union Road Site
Town of Cheektowaga, New York

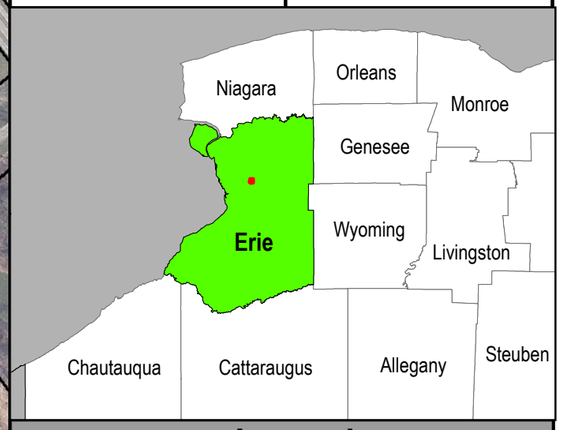
Unicorn Management Consultants, LLC
52 Federal Road
Suite 2C
Danbury, CT
06810

(203) 205-9000

Project Name: Union Road

Figure 1

Author: NRH	**Checked By:**
Project #: 2011	**Created:** 12/20/22 **Revised:** 9/1/23
Scale: 1:5,000	**File:** Fig1_SiteMap



Legend

- MHO Manhole Cover
- Utility Pole
- Class V, RCP
- Water Main
- Sanitary Sewer Pipe
- UnionRoad_Clip
- Wetland
- Site Boundary (Parcels)
- Former Roundhouse Area
- Restored Roundhouse Area
- Erie County NY Parcels

Unicorn Management Consultants, LLC
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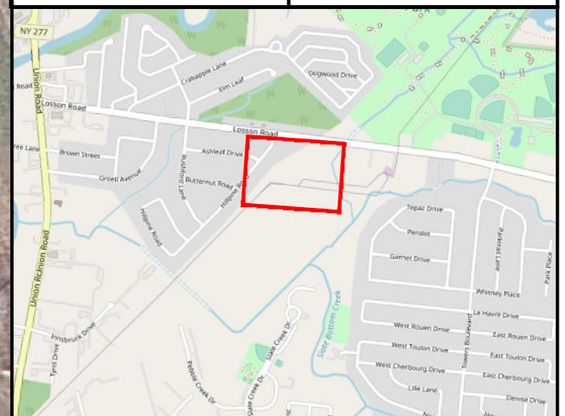
Project Name:	Union Road Cheektowaga, NY

Figure 2

Author: NRH	**Checked By:** MG
Project #: 2011	**Created:** 8/25/23 **Revised:** 9/6/23
Scale: 1:1,677	**File:** Fig2_RHSoilLocs



Legend

- Proposed Air Monitoring Location
- Proposed Soil Sample Location
- Former Roundhouse Area
- Restored Roundhouse Area

Note:
Air monitoring locations based on prevailing wind and may be changed based on wind direction while in the field.

Roundhouse Area Investigation

Union Road Site
Town of Cheektowaga, NY

N

0 125 250 500 Feet

ATTACHMENT 1

COMMUNITY AIR MONITORING PLAN

Community Air Monitoring Plan

Union Road Site
Cheektowaga, NY
Site Registry No. 915128

Prepared By:

Unicorn Management Consultants, LLC
52 Federal Road, Suite 2C
Danbury, CT 06810

September 1, 2023

DOCUMENT AUTHORIZATION FORM

Community Air Monitoring Plan

Union Road Site
Cheektowaga, NY
Site Registry No. 915128

Prepared By:
Unicorn Management Consultants, LLC
52 Federal Road, Suite 2C
Danbury, CT 06810

September 1, 2023

AUTHORIZATIONS:

Prepared By:

Rigby Michaelsen
Environmental Scientist

9/1/2023
Date

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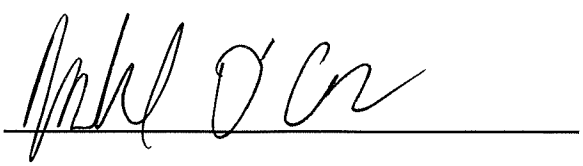
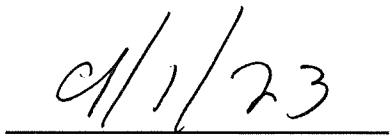
1 CERTIFICATION

I, Michael O'Connor, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Community Air Monitoring Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).





Michael O'Connor **Date**

Manager of Environmental Projects

2 INTRODUCTION

2.1 INTRODUCTION

American Premier Underwriters (APU) retained Unicorn Management Consultants, LLC (UMC) to prepare this Community Air Monitoring Plan (CAMP) in accordance with the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation-10 (DER-10), Technical Guidance for Site Investigation and Remediation, Section 1.9 Health and Safety, paragraph(b)1 which, references the development of a CAMP that meets the requirements established by the New York State Department of Health (NYSDOH) as presented in the NYSDEC DER-10, Appendix 1A and 1B. The NYSDOH requires continuous real-time monitoring for volatile organic compounds (VOCs) and particulates at the upwind and downwind perimeter of each designated work area while certain ground intrusive activities are in progress at contaminated sites.

This site-specific CAMP has been prepared to address the monitoring, response levels, and action levels associated with potential airborne contaminants (VOCs and particulates) resulting from the proposed ground intrusive activities scheduled for the Union Road Site in the Town of Cheektowaga, New York (the "Site").

2.2 SITE DESCRIPTION AND BACKGROUND

The site is bordered on the north side by residential homes along Hillpine Road; on the east side, the site by Losson Road. The eastern and southern sides of the Site are bordered by Slate Bottom Creek in close proximity to residential homes on Slate Creek Drive and Topaz Drive. **Figure 1** is a Site Locus illustrating the approximate location of the site area and **Figure 2** is a Project Base Map showing the anticipated work areas.

The site operated as a large railroad yard (Gardenville Yard) for about 40 years (~1915-1955) and was mainly used as a railroad classification and and maintenance facility. Aerial photographs indicate that the Site was already established and operating as a large railroad yard by 1927. By 1951, the railyard had installed a spur, leading down to a depression in the eastern wetlands on the Site. This spur was used to transport the railyard's waste for disposal into the depression. However, a 1960s photograph reveals that the railyard was abandoned, the spur leading to the depression had been removed and only ~50% of the original depression remained. By 1972, the surrounding land had been developed into a residential area and the railyard was thoroughly abandoned. The railyard facility disposed of its waste in the eastern wetland's depression between 1950-1960, at which time it was owned by New York Central Railroad.

In 1982, the Erie County Department of Environment and Planning responded to a complaint involving the Site. During their inspection, they investigated the depression where the railroad spur was previously operating. At the southern end of this depression, the county discovered an area (approximately 80 ft by 140 ft) that contained tar-like waste and 56 abandoned drums. After taking samples of the tar-like material and water that flowed out of the depression, the county concluded that the depression was man-made with the intention of disposing of the railyard's waste. This explains the railroad spur and why the depression was half-filled.

In 1986, as a part of a Superfund Site Investigation, it was revealed that the disposal area was situated in wetlands that drain into Slate Bottom Creek. Given that the area around the Site

contained trails, fields and residential areas, the New York State Health Department was concerned about citizens accessing the Site. Therefore, a fence and sign were posted with warnings about potentially hazardous waste in the area.

In 1992, a Record of Decision (ROD) for the Site was signed between Penn Central Corporation and the New York State Department of Environmental Conservation (NYSDEC). This ROD also included a Final Remedial Action Workplan (RAWP) dated June 18, 1993, and was implemented between 1995-1997.

The remedial activities included the in-place stabilization of the tar pit materials and the construction of a bentonite slurry walled containment cell around the tar pit. Impacted materials from around the Site were relocated to within the containment cell for permanent storage. In order to prevent groundwater infiltration, a dewatering trench was included in the containment cell's design. Water is collected in this trench and discharged, under permit, to the Buffalo Sewer Authority's sewer system.

The remedial activities also included stream restoration and erosion control along portions of Deer Lik Creek and Slate Bottom Creeks. This included the construction of the Conrail culvert "wing wall" near the southern end of the Site. Lastly, the remedial activities included the placement of a 6-inch soil cap over the roundhouse area to prevent exposure to arsenic and other impacted soils identified near the roundhouse.

The Site is currently in an ongoing Operations and Maintenance phase, which includes quarterly discharge sampling for the Buffalo Sewer Authority (BSA) permit compliance, an annual site inspection, and annual groundwater monitoring activities.

On October 31, 2022, NYSDEC requested an additional work plan for the Site in order to i) confirm that the engineered soil cap in the Restored Roundhouse Area was still intact, and ii) conduct further investigation within the former Roundhouse Area. On May 18, 2023, UMC traveled to the Site in Cheektowaga, New York to complete an inspection of the Restored Roundhouse Area's cover system. This inspection was performed to confirm that at least 6 inches of soil was present at 10 locations within the Restored Roundhouse Area. The depth of the soil was measured via hand-digging and each location was photo-documented. UMC noted any deficiencies in soil cover, vegetative cover, erosion or other disturbances to the NYSDEC.

Between September 11-15, UMC will perform an additional investigation of the Former Roundhouse Area to determine if the soil is below the NYSDEC's soil cleanup objectives. UMC will target, via sampling, soils that are present between each of the spokes of former Roundhouse. UMC will investigate and document the extent of the remaining concrete structure located at the center of the former Roundhouse Area and if enough soil is present, it will be sampled and tested for the same compounds as those from the soil cover area. All soil samples will be collected and shipped under appropriate laboratory protocols to ALS Environmental Laboratories in Rochester, NY (ALS) for analysis of the following:

- Volatile Organic Compounds (VOCs) via method 8260;
- Semi-Volatile Organic Compounds (SVOCs) via method 8270;
- PCBs via method 8082;
- Pesticides via method 8081;
- Herbicides vi method 8151; and
- Metals via methods 6010/7471

3 AIRBORNE CONTAMINANT MONITORING PROCEDURES, RESPONSE LEVELS, AND ACTIONS

The NYSDOH requires real-time monitoring for volatile organic compounds (VOCs) and particulates at the upwind and downwind perimeter of each designated work area while certain activities are in progress at contaminated sites. In addition, depending upon the nature of known or potential contaminates at each site, real-time air monitoring for VOCs and/or particulate levels may be necessary within the exclusion or work zone. Specifically, continuous upwind and downwind VOC and particulate monitoring will be performed during site activities that may adversely impact air quality and exceed regulatory standards including, but not limited to: soil excavation and handling, soil drilling, soil staging, backfilling, truck loading, site traffic, and equipment decontamination. If, during the site activities, the particulate or VOC levels exceed the acceptable standards, work activities may be (1) temporarily halted with continued monitoring; (2) temporarily halted until the source is identified, corrective actions are taken to abate emissions, and monitoring continued; or (3) shutdown. To determine the appropriate corrective action, VOC and particulate concentrations in the air will be monitored, recorded, and compared to the NYSDOH response levels.

3.1 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

Field personal will be trained on the operation and maintenance of all monitoring equipment and record keeping procedures. In addition, monitoring equipment will be calibrated daily and have daily instrument performance (span) checks. Additional information regarding QA/QC policies and procedures can be found in the site-specific Quality Assurance Project Plan (QAPP).

3.2 MONITORING LOCATION SELECTION

The proposed air monitoring locations are indicated on **Figure 2** based on the regional prevailing wind direction. These locations may be modified based on the actual wind direction, which will be determined daily using a wind sock or other wind direction measuring device. Particulate monitoring and VOC instruments will be placed in both the upwind and downwind locations for monitoring. If the wind direction should change by 50° or more, the air monitoring locations will be moved and the change recorded. Baseline air sampling (upwind) will be performed prior to commencement of work each day to establish the standard used for compliance with regulatory response levels.

3.3 VOC MONITORING, RESPONSE LEVELS, AND ACTIONS

VOC monitoring will be performed at the downwind perimeter of the immediate work area on a continuous basis during all ground intrusive activities, equipment decontamination, soil loading, and site restoration activities. Upwind concentrations will be measured at the start of each work day and periodically thereafter to establish background conditions. A photoionization detector (PID) capable of data logging will be used to monitor the airborne VOC concentrations. The PID will be programmed to collect continuous readings and display a 15-minute average concentration. In addition, periodic monitoring for VOCs in the form of instantaneous readings will be recorded during non-intrusive activities such as during the collection of soil samples.

The ambient air concentration for VOCs is 5 parts per million (ppm) above background concentrations, as stated in the NYSDEC DER-10 Appendix 1A, for the 15-minute running

average concentration. If this concentration is exceeded, VOC control measures must be implemented. If the 15-minute average continues to exceed 5 ppm but less is than 25 ppm, the work must be halted. Work must be stopped if the 15-minute average exceeds 25 ppm. To reduce VOC vapors from exceeding standards or from producing nuisance odors, stockpiled soil designated for backfill or off-site disposal will be covered with polyethylene sheeting. The following table summarizes the VOC response actions:

VOC Response Levels and Actions	
Response Level	**Actions**
> 5 ppm above background for 15-minute average	Temporarily halt work activities
	Continue monitoring
	If VOC levels decrease (per instantaneous reading) below 5 ppm over background, work activities can continue
Persistent levels > 5 ppm over background but < 25 ppm	Halt work activities
	Identify source of vapors
	Corrective action to abate vapor emissions
	Continue monitoring
	Resume work activities if VOC levels 200 feet downwind of the property boundary or half the distance to the nearest potential receptor is <5 ppm for a 15-minute average
>25 ppm at the perimeter of the work area	Activities must be stopped.
	Resume work activities if VOC levels 200 feet downwind of the property boundary or half the distance to the nearest potential receptor is <5 ppm for a 15-minute average

3.4 PARTICULATE MONITORING, RESPONSE LEVELS, AND ACTIONS

Particulate monitoring for dust, mists, and aerosols will be performed continuously at the upwind and downwind perimeters of the work area during the handling of waste or contaminated soil; or, when activities onsite may generate particulate matter. Particulate monitoring equipment capable of real-time data logging particulates less than 10 microns (PM 10) that meet the DER-10 Appendix 1B performance standards will be used to generate 15 minute (or less) running average concentrations for comparison to the regulatory response levels. The monitoring equipment must have an audible alarm to indicate exceedance of the regulatory response levels.

Although it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. Therefore, particulates will be visually evaluated and documented periodically during the work day. If dust is observed leaving the work site, dust suppression control measures will be applied. Weather conditions must also be evaluated to determine the effectiveness of the dust control measures.

To suppress dust and other particulates during the investigation, water in the form of an atomizing spray will be applied to equipment and on buckets during excavation and handling. Polyethylene sheeting will be used to cover excavations and stockpiled materials within work zones.

The action level for dust and particulates is 150µg/m^3 for the 15-minute running average concentration, as stated in the NYSDEC DER-10, Appendix 1B. If this concentration should be exceeded, the upwind background level must be confirmed immediately and particulate control measures must be implemented. If the 15-minute average exceeds 100 µg/m^3 above background level, additional dust suppression techniques must be implemented. If the action level of 150µg/m^3 continues to be exceeded work will stop and DER will be contacted. The following table summarizes the particulate level response actions:

Particulate Response Levels and Actions	
Response Level	**Actions**
> 100 µg/m^3 above background for 15-minute average or visual dust observed leaving the site	Apply dust suppression
	Continue monitoring
	Continue work if downwind particulate levels are <150 µg/m^3 above background and no visual dust is leaving the site
> 150 µg/m^3 above background for 15-minute average	Stop work, contact DER
	Work may resume once downwind particulate concentrations are <150 µg/m^3 above background and no visual dust is leaving the site

4 DATA COLLECTION AND REPORTING

4.1 DATA COLLECTION

Data collected during VOC and particulate monitoring will be continuously recorded from the monitoring instruments. Each instrument will be programmed so that continuous readings will be averaged over 15-minute intervals. At the conclusion of each work day, the instantaneous and 15-minute interval data will be downloaded and reviewed.

4.2 REPORTING

The downloaded data will be attached to daily air monitoring reports. At the conclusion of the work activities, an air monitoring report will be prepared as part of the remedial investigation report documenting the air monitoring results and any response actions taken.

APPENDIX 1A and 1B

New York State Department of Health Generic Community Air Monitoring Plan
Fugitive Dust and Particulate Monitoring

Appendix 1A
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. 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 must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. 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 must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can 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.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using 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) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

Appendix 1B
Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;
(b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
(e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
(f) Particle Size Range of Maximum Response: 0.1-10;
(g) Total Number of Data Points in Memory: 10,000;
(h) Logged Data: Each data point with average concentration, time/date and data point number
(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
(l) Operating Temperature: -10 to 50^{o} C (14 to 122^{o} F);
(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

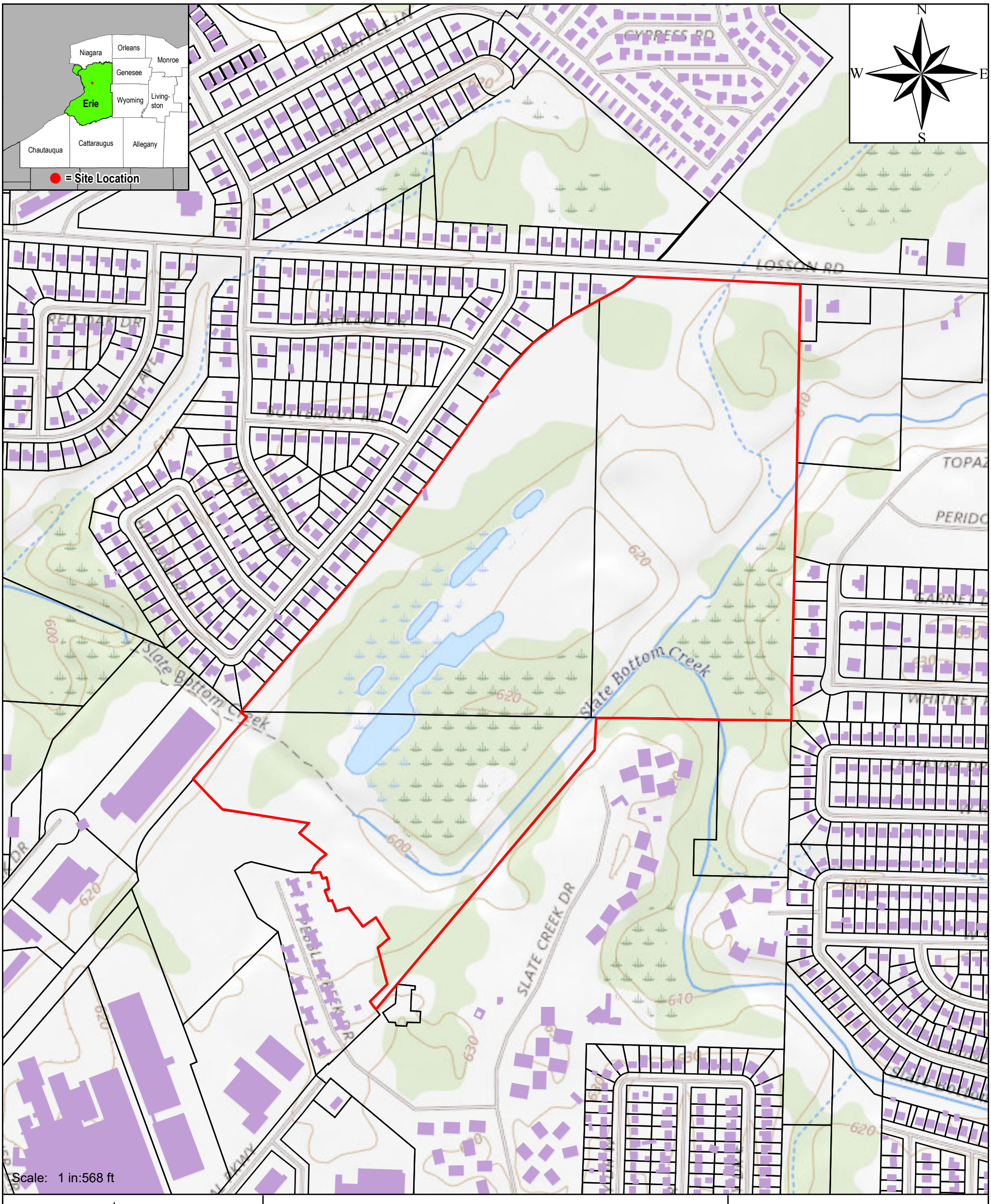
(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

FIGURE 1

Site Locus



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Site Locus Map

Union Road
Town of Cheektowaga, NY

0 500 1,000 2,000 Feet

Legend

- Building
- Site Boundary (Parcels)
- Parcels

Figure 1

Project Name:	Union Road Cheektowaga, NY
Project #: 2007	Author: NRH
Created: 8/25/23	Revised:
File:	Fig1_SiteLocus

Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed April, 2023.

FIGURE 2

Site Base Map

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Danbury, CT
06810

(203) 205-9000

Project Name:	Union Road Cheektowaga, NY

Figure 2

Author: NRH	**Checked By:** MG
Project #: 2011	**Created:** 8/25/23 **Revised:** 9/1/23
Scale: 1:1,667	**File:** Fig2_AirLocs

Legend

- Proposed Air Monitoring Location
- Former Roundhouse Area
- Restored Roundhouse Area

Note:
Air monitoring locations based on prevailing wind and may be changed based on wind direction while in the field.

Roundhouse Area Investigation

Union Road Site
Town of Cheektowaga, NY

N

0 100 200 400 Feet