May 2021

DRAFT - INTERIM REMEDIAL MEASURES WORK PLAN

Old Troy Municipal Incinerator Site
East Side of Oakwood Avenue
Town of Brunswick
Rensselaer County, New York
BCP Site #C442001

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CERTIFICATIONS

I, Jeffrey A. Marx, P.E., certify that I am a NYS registered professional engineer and that this Interim Remedial Measures Work Plan was prepared in accordance with applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) dated May 3, 2010.

NYS Professional Engineer License #: 82100

Date:

Signature:

BROWNFIELD CLEANUP PROGRAM
INTERIM REMEDIAL MEASURES WORK PLAN
OLD TROY MUNICIPAL INCINERATOR SITE (C442001)
EAST SIDE OF OAKWOOD AVENUE
TOWN OF BRUNSWICK, RENSSELAER COUNTY

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1.0 INTRODUCTION & PURPOSE

1.1 Introduction

This Interim Remedial Measure (IRM) work plan (IRM Work Plan) has been prepared by C.T. Male Associates Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C. (C.T. Male) for Atlas Renewables LLC pursuant to the New York State Department of Environmental Conservation (NYSDEC or Department) Brownfield Cleanup Agreement (BCA) in relationship to the property known as the Old Troy Municipal Incinerator Site located along the east side of Oakwood Avenue in the Town of Brunswick, Rensselaer County, New York (herein the "Site"). A Site Location Map is presented as Figure 1.

The Site is approximately 25.3 acres in size and constitutes the southern portion of the overall 39.97-acre parcel (Lot 2.2 of Block 2 of Section 80) of the Rensselaer County Tax Map. The Site consists of heavily vegetated vacant land. The Brownfield Cleanup Program (BCP) Site boundaries are located within the larger 39.97-acre tax parcel that is identified as the Old Troy Municipal Incinerator landfill site, which is a NYSDEC Class 3 Inactive Hazardous Waste Site.

The proposed use of the Site as a solar farm is classified as and Industrial Use and therefore the analytical results for soil samples collected per the Remedial Investigation (RI) will be compared to the Industrial Use SCOs. Similarly, the anticipated remedy for the Site will involve the installation of surface cover system consisting of a demarcation layer and 1-foot soil cover system over areas of the Site in which landfilled waste materials are exposed at grade and other portions of the Site where the existing soil cover is either less than 1-foot thick and/or exhibits concentrations of chemical constituents above the Industrial Use SCOs. Institutional and engineering controls will also be applied to the Site for future Site management and the protection of human health and the environment.

As provided in Section 1.11, Interim Remedial Measures, of NYSDEC DER-10, a non-emergency IRM is an action that can be undertaken at any time during the course of the remedial program in response to actual or potential environmental or public health exposures identified within the Site. Furthermore, the use of non-emergency IRMs is

encouraged when a source of contamination or exposure pathway can be effectively addressed before the completion of the on-going investigation and remedy process. The IRMs may be conducted, as necessary, during any portion of the Remedial Investigation (RI) and Site preparation phase.

The BCP Volunteer, Atlas Renewables LLC, is planning the installation of a 5,000 kilowatt solar array farm within the defined BCP site. The planned layout of the solar farm is presented in Figure 3: Proposed Site Layout. The solar array panels will be supported on approximate 2-feet by 2-feet by 2-feet thick cast concrete pads that will be installed on top the planned 1-foot soil cover system, where required. Ground penetrating solar panel supports such as drilled helical posts are not planned. Electrical connection of the solar arrays will be aboveground. Depending on electrical code requirements, the main power feed from the Inverter and AC Circuit Breaker and Step Up and Zig Zag Transformers will be installed in conduit below ground surface to the northwestern boundary of the BCP Site. From this point, the 13.2 kV electrical cable will be carried overhead on power poles extending northward to the interconnect with the electrical power supplier (National Grid). The entire BCP will be secured with an 8-foot high security fence with a single ingress/egress locking gate.

1.2 Purpose

The purpose of the IRM Work Plan is to provide a plan for non-emergency IRMs that address specific Site elements, as appropriate, established within NYSDEC DER-10 as related to the anticipated Site remedy, redevelopment and reuse. The IRM elements/activities are as follows.

-Site clearing;

-Removal of surficial solid wastes;

-Installation of security fencing;

-Installation of utilities;

-Minor Site grading and placement of barrier cover system; and

-Installation of an access road.

The IRM Work Plan generally describes the IRMs anticipated for the Site and provides an overview of the methods that will be employed for completion of the IRMs. A drawing depicting the Site layout is presented as Figure 2: Site Features Map and Figure 3: Proposed Site Layout.

1.3 Nature and Extent of Contamination

The nature and extent of contamination at the Site was evaluated during a Site Characterization (SC) investigation conducted by others under the auspices of the Department from 2005 to 2007. Results of the SC are presented in the 2008 SC Report, which is presented as Exhibit 1 in the May 2021 RI Work Plan for the Site.

The SC included the collection of surface soil, subsurface soil, surface water, sediment, overburden and bedrock groundwater, and soil vapor samples for laboratory analyses.

1.3.1 Soil

The Standards, Criteria and Guidance (SCGs) used for comparison of surface and subsurface soil sampling analytical results in the 2008 SC Report are the NYSDEC Technical and Administrative Guidance and Memorandum (TAGM) #4046 Determination of Soil Cleanup Objectives (SCOs) and Cleanup Levels and SCOs for Commercial Use Sites promulgated at 6 NYCRR Part 375. The SCGs for comparison of the surface soil and subsurface soil sampling results have been amended and are now compared to SCOs for Unrestricted and Restricted Use SCOs promulgated at 6 NYCRR Part 375. Parameters that have exceeded SCGs are presented in Figure 4: Surface Soil Exceeding SCGs and Figure 5: Subsurface Soil Exceeding SCGs.

<u>Surface Soil</u>

Twelve (12) surface soil samples, depicted as SS-12 to SS-23 on Figure 4 were collected for laboratory analyses within the Site boundaries. Each surface soil sample consisted of five (5) discrete grab samples that were composited into one (1) sample. The grab samples were collected from a centroid location and from (4) additional locations distanced approximately five (5) feet to the north, south, east and west of the centroid location. Each grab sample was collected from approximately 0 to 6-inches below grade. The samples were analyzed for the Target Compound List (TCL) for semi-volatile organic compounds (SVOCs), pesticides and polychlorinated biphenyls (PCBs), the Target Analyte List (TAL)

for metals (including mercury), and cyanide; and are collectively referred to as "parameters" in the ensuing paragraphs.

As depicted on Figure 4, none of the parameters exceeded Industrial Use SCOs, which is the intended use for the Site. Lead and mercury were the only parameters that exceeded Commercial Use SCOs at sampling locations SS-13 (mercury only) in the approximate central portion of the Site and SS-17 (lead only) in the approximate eastern portion of the Site. The majority of the parameters were detected at concentrations below Residential Use SCOs, with the exception of isolated detections of lead and mercury which exceeded Restricted-Residential Use SCOs and cadmium which exceeded its Residential Use SCO.

Subsurface Soil

Subsurface soil samples were collected for laboratory analyses from varying depth intervals from 13 borings completed within the Site. The borings are depicted on Figure 5 as SB-02 to SB-04, SB-09 to SB-12, MWOB-2, MWBR-03, MWBR-04, MWBR-06, MWBR-08 and MWBR-11. The samples were analyzed for the TCL for volatile organic compounds (VOCs), SVOCs, pesticides and PCBs, the TAL for metals (including mercury), and cyanide; and are collectively referred to as "parameters" in the ensuing paragraphs.

As a note, analytical results for metals and cyanide were not provided in the SC Report for boring locations SB-02 to SB-04 and SB-09 to SB-12. The results were discussed in the text of the SC Report, but the text was not clear on which SCGs were exceeded.

As depicted on Figure 5, with the exception of MWOB-2, all detected parameters were at concentrations below Residential Use SCOs with the exception of a single lead detection that exceeded its Restricted-Residential Use SCO at the 6 to 6.9-foot sampling depth interval at MWBR-06, which is located on the western portion of the Site.

At MWOB-2, toluene was detected above the Industrial Use SCO and total xylenes were detected above the Commercial Use SCO at the 52 to 54-foot sampling depth interval. Total PCBs, barium and lead were detected above Commercial Use SCOs at the 46 to 48-foot sampling depth interval. MWOB-2 extended through and to the bottom of the landfill mass.

1.3.2 Groundwater

The SCGs for groundwater samples are the New York State (NYS) Ambient Water Quality Standard and Guidance Values (AWQS), as promulgated in June 1998 inclusive of all addendums.

A drawing depicting the sampling locations where groundwater exceeded SCGs is included as Figure 6. Groundwater samples were collected for laboratory analyses from both monitoring wells and from drilled boreholes that were not converted into monitoring wells. The monitoring wells were properly developed and purged prior to sample collection. The open boreholes were not developed and purged prior to sample collection, but samples were collected using a disposable polyethylene bailer.

Groundwater Samples Collected from Monitoring Wells

The monitoring wells are depicted as MWOB-2, MWI-5, MWBR-03, MWBR-04, MWBR-06, MWBR-08 and MWBR-11 on Figure 6. MWOB-2 and MWI-5 are overburden monitoring wells. Monitoring wells MWBR-03, MWBR-04, MWBR-06, MWBR-08 and MWBR-11 are bedrock monitoring wells.

Petroleum and chlorinated VOCs, and metals, were detected above SCGs in all of the monitoring wells sampled. The VOCs detections were isolated to two (2) monitoring wells (MWOB-2, MWBR-03) that were installed within the footprint and boundary of the landfill mass. At these locations, eight (8) chlorinated VOCs, six (6) petroleum VOCs and six (6) metals were encountered at concentrations exceeding SCGs. The highest concentrations included the chlorinated VOC cis-1,2-dichloroethene which was detected at a concentration of 2,200 parts per billion (ppb) versus its SCG of 5 ppb; the petroleum VOC toluene which was detected at a concentration of 70,000 ppb versus its SCG of 5 ppb; and the metal lead which was detected at a concentration of 207 ppb versus its SCG of 25 ppb.

Ten (10) metals were detected at varying frequencies above SCGs in all of the monitoring wells. The highest frequency of detections included iron and selenium which were detected above SCGs in all of the wells; magnesium, manganese and sodium which were detected above SCGs in approximately half of the wells; and antimony, chromium, lead and thallium which were detected above SCGs in less than half of the wells.

The metals above SCGs represent total recoverable metal concentrations (i.e., the samples were not filtered prior to analysis) and not dissolved metals. Groundwater samples collected during two (2) previous sampling events in September and November 2005 were analyzed for both total and dissolved metals. Comparison of the most recent 2007 sampling results to the 2005 total/dissolved (unfiltered/filtered) metals sampling results shows that select lead and iron detections above SCGs in the 2007 sampling event may be sediment-bound. The lead detection of 207 ppb at MWOB-02 was non-detect in the 2005 filtered samples. The iron detections of 20,500 ppb and 1,230 ppb at MW-BR-03 and MW-BR-04 were non-detect in the 2005 filtered samples.

Groundwater Samples Collected from Open Boreholes

The open boreholes where groundwater samples were collected from are identified as SB-02, SB-03, SB-04, SB-10, SB-11 and SB-12 on Figure 6. The boreholes were advanced to the top of bedrock; as such, groundwater sampling results represent groundwater in the overburden aquifer.

The samples were analyzed for VOCs and metals. The metals analytical results are not discussed herein because metal detections in these groundwater samples are likely attributed to suspended sediment in groundwater (total concentrations rather than dissolved concentrations) and do not represent groundwater quality because the open boreholes could not be properly purged and developed prior to sample collection.

As depicted on Figure 6, several petroleum- and chlorinated-type analytes were detected above SCGs at two (2) soil boring locations (SB-03, SB-10) located along both the eastern portion of the approximate landfill boundary and the Site boundary. The highest concentration and frequency of contaminants was at soil boring SB-03, located in the vicinity of overburden monitoring well MWOB-2; which also exhibited the highest concentration and frequency of contaminants. VOCs exceeding SCGs at SB-03 included 1,2-, 1,3- and 1,4-dichlorobenzene, benzene, chlorobenzene, ethylbenzene, isopropylbenzene and total xylenes.

1.3.3 Surface Water

The SCGs for surface water samples are the NYS Technical and Operational Guidance #1.1.1: AWQS and Groundwater Effluent Limitations, 1998 Table 1 (with addendums), most stringent non-H(WS) type freshwater class.

A drawing depicting the sampling locations where surface water exceeded SCGs is included as Figure 7. Surface water samples were collected from surface water sampling locations SW-1, SW-3, SW-8, SW-10, SW-11 and SW-12.

Four (4) metals (aluminum, iron, selenium, zinc) were detected above SCGs in the surface water samples. The highest frequency of detections were for iron and selenium. Aluminum and zinc were each detected at one (1) sample location.

The metals above SCGs represent total recoverable metal concentrations and not dissolved metals. The samples were not filtered prior to analysis as field parameters obtained from the surface water samples indicated turbidity readings below 50 Nephelometric Turbidity Units (NTUs).

1.3.4 Sediment

The SCGs used for comparison of sediment sampling analytical results in the 2008 SC Report is the NYSDEC Division of Fish, Wildlife and Marine Resources, Technical Guidance for Screening Contaminated Sediments, January 1999. The SCGs for comparison of the sediment sampling results have been amended and are now compared to Freshwater Sediment Guidance Values (SGVs) for Organic Compounds and Metals Promulgated in Table 5 of NYSDEC Screening and Assessment of Contaminated Sediment (June 24, 2014). The SCGs are divided into three (3) groups; Class A, Class B and Class C sediments. Class A sediments are considered to be of low risk to aquatic life. Class B sediments are slightly to moderately contaminated and additional testing is required to evaluate the potential risks to aquatic life. Class C sediments are considered to be highly contaminated and likely to pose a risk to aquatic life.

A drawing depicting the sampling locations where sediment samples exceeded SCGs is included as Figure 8. Sediment samples were collected from sediment sampling locations SD-1, SD-3, SD-8, SD-10, SD-11 and SD-12. In general, none of the detections met the Class A SCGs, most of the metals fell within the Class B SGGs; and no more than one or two metals at each location were within Class C SCGs except for sample location SD-11 where four metals were within Class C SCGs. More details on the results are discussed below.

Organics did not exceed SCGs. Eight (8) metals were detected above Class B and Class C SCGs. Copper, lead and zinc were detected above SCGs at all sampling locations.

Cadmium, mercury, nickel and silver were detected above SCGs at five (5) of six (6) sampling locations. Arsenic was detected above its SCG at two (2) of six (6) sampling locations.

The highest frequency of metal detections exceeding Class C SCGs was at sampling location SD-11, where arsenic, cadmium, copper and zinc were above Class C SCGs.

The most frequently detected metal exceeding its Class C SCG was silver, which was detected at three (3) sampling locations (SD-1, SD-8 and SD-12).

1.3.5 Soil Vapor

Six (6) soil vapor field samples, one (1) duplicate sample, and one (1) background soil vapor sample were collected during the SC. The soil vapor sampling locations were not identified in the SC Report. Rather, the SC Report indicated that five (5) sampling locations were located at the perimeter of the landfilled area and one (1) sampling location was located to the south of a baseball field, which is assumed to lie within the BCP Site boundary.

Of the 60 compounds analyzed under EPA Method TO -15, 25 were not detected. There are no New York State or federal soil vapor concentration SCGs against which the soil vapor data can be compared. The soil vapor sample collected to the south of the baseball field (SV-06) within the assumed BCP Site boundary depicted a chlorinated solvent (tetrachloroethylene) at 70 $\mu g/m^3$. The results of the ambient air and soil vapor samples collected from the perimeter of the landfilled area, when compared to background results, indicate that the volatile contaminants of concern (benzene, toluene, ethylbenzene and xylene [BTEX]) were not migrating off-site via this pathway at the locations investigated.

1.4 IRM Approach

The following sections detail the proposed IRMs for the Site and discuss how the proposed scope of work in the May 2021 RI Work Plan will be used to inform and guide the proposed IRMs. The IRMs have been developed in conjunction with the planned reuse of the Site as a solar electrical generating farm.

The non-emergency IRMs proposed for the Site include:

-Site clearing;

-Removal and disposal of surficial solid wastes;

-Installation of security fencing;

-Installation of solar farm related equipment and utilities;

-Placement of surface cover material; and

-Construction of a Site access road.

The aforementioned IRMs will be completed in tandem with the proposed RI for the Site, which is presented in the May 2021 RI Work Plan. The proposed remedial investigations will be conducted to assess environmental conditions prior to and during completion of the IRMs. The following summarizes how the proposed remedial investigations will be used to inform the IRMs.

- The RI surface soil sampling analytical results will augment the analytical results from surface soil sampling conducted during the SC. Sampling and laboratory analysis of surficial material classified as landfilled wastes will not be completed as these areas will be subject to the installation of the surface cover system. The RI and SC surface soil sampling analytical results will provide an assessment of contaminants in the Site's surface soil for comparison to Industrial Use SCOs and to inform potential human health exposures and best work practices to be employed by the contractor for workers during implementation of the proposed IRMs.

- To enable the RI existing ground surface conditions assessment survey, the Site will be subdivided into 46 grid cells, each measuring approximately 25,000 square feet. In each grid cell, the Site's ground surface will be visually assessed and inventoried for visible surface debris (i.e., tires, metal, glass, etc.) and evidence of exposed landfill mass (i.e., ash, partially buried glass and metal, etc.). These items/areas will be geolocated using GIS instrumentation and transferred to site figures for further reference and reporting. This information will be used to determine which grid cells, in terms of the volume, extent and types of surficial solid wastes, that will require removal from the Site, and which portions of the grid cells will require a cover system to be installed due to exposed landfill mass at the ground surface.

- Areas within the grids that do not exhibit evidence of landfill mass at the surface will be further subdivided into approximate 900 square foot (approximately 30 feet by 30 feet) grid sub-cells. A shovel test pit will be advanced within each grid sub-cell to a depth of at least one (1) foot bgs to assess the thickness of soil overlying the landfill mass. If landfill mass is not encountered at the depths of at least one (1) foot bgs (at the majority of the locations within a particular cell), a cover system will not be required within the grid sub-cell, pending analytical results of the RI surface and shallow soil sampling (see next paragraph). If landfill mass is encountered at depths less than one (1) foot (at the majority of the locations within a particular cell), then a one (1) foot cover system will be required within the grid sub-cell.

- At least one (1) RI shallow soil sample will be collected from 0 to 1-foot below grade from grid cells that do not present exposed landfill mass at the ground surface or to a depth of at least one (1) foot bgs; as these exposed areas may not require cover material. The sampling results will be used to determine which grid cells within the Site will require cover material if not already present at a thickness of at least 12-inches (the minimum cover system thickness). Per the Site's intended use for industrial purposes, one (1) foot of cover material will be required over portions of the Site where analytical results for the RI shallow soil samples exceed SCOs for Restricted Industrial Use Sites promulgated at 6 NYCRR Part 375.

- Information from the RI test pits around the perimeter of the landfill mass/limits and soil borings (for installation of monitoring wells and soil gas sampling points) will be used to gain a better understanding of the horizontal, and to a lesser degree, the vertical extent of the landfill mass. This information will also be used to guide the installation of the IRM security fencing posts.

- The RI wetland delineation will inform which areas of the Site contain wetlands which cannot be disturbed during implementation of the IRMs.

The following sections provide the means and methods that will be employed to implement the IRMs. RI field activities applicable to the IRMs are also discussed.

1.4.1 Site Clearing

The Site is densely vegetated with mature trees and heavy undergrowth. Clearing of the Site will be required to provide unfettered access to the Site for completion of RI tasks to

include: surveying and staking the grid cells; conducting the existing ground surface assessment survey; collection of shallow soil samples; advancement of test pits to assess the extent of the landfill mass; advancement of test borings for installation of overburden monitoring wells and soil gas sampling points; and for the horizontal and vertical survey of sampling points. The Site will not be grubbed as it is not necessary for the solar farm solar arrays which can be periodically adjusted if ground settlement occurs.

RI surface soil samples will be collected for subjective field evidence of contamination and laboratory analyses after Site clearing. The analytical data from the RI surface soil sampling will be used in conjunction with analytical data from the SC surface soil sampling to provide an assessment of surface soil conditions across the Site. The data will also be used to determine areas within the Site that will require the placement of additional surface cover materials. Surface soil sampling data contained in the SCR depicts the majority of the analyzed parameters (TCL SVOCs, pesticides and PCBs, TAL metals [including mercury], and cyanide) to be at concentrations below Restricted-Residential Use SCOs with the exception of isolated detections of lead and mercury which exceeded Commercial Use SCOs. None of the parameters exceeded Restricted Industrial Use SCOs.

Cleared vegetation will be mechanically reduced to wood chips prior to off-site disposal and/or on-Site spreading.

1.4.2 Removal of Surficial Solid Wastes

The RI existing ground surface assessment survey will be conducted within each grid cell across the Site to identify and inventory surficial wastes. The solid wastes will ultimately be grouped and disposed of off-site accordingly.

Surface solid wastes and debris that are partially buried will be removed in a controlled manner and soils adhered to the materials will be removed prior to off-site disposal. Soils removed from the wastes will be allowed to fall to the ground surface in the vicinity of where the wastes were removed as it will eventually be covered.

Surface solid wastes that require special handling (i.e., automobiles, containers of unknown solids and liquids, batteries, tires, etc.) will be consolidated and profiled for off-site disposal by an environmental and/or other specialty contractor. The contractor will provide pertinent documentation (i.e., waste profile data, disposal facility acceptance

letter, Part 364 transporter permit, etc.) to the Remediation Engineer for review and acceptance prior to disposal of the wastes off-site. The wastes requiring special handling may be relocated and staged in a secure location of the Site not subject to RI and IRM activities pending off-site disposal.

1.4.3 Installation of Security Fencing

Permanent fencing with lockable access gate will be installed around the Site perimeter at the approximate locations depicted on Figure 3. The fencing will be installed to secure the Site from trespassers. The fencing will be approximately eight (8) feet in height and will contain a lockable access gate on the northwestern portion of the Site. The fencing will be constructed of wire fencing with pressure treated wood fence posts. The fence posts will be installed by mechanically driving the posts into the ground causing no soils to be brought above grade.

The RI test pitting and soil boring information will be reviewed prior to installation of the fencing. Portions of the fencing may be adjusted based on the composition, and the horizontal and vertical extent of the landfill mass.

1.4.4 Installation of Utilities

Underground electrical cable will be installed at the route depicted on Figure 3. The underground cable 13.2 kV will be installed along the proposed access road into the Site. Depending on electrical codes, the cabling may be installed above or below ground. If below, it is anticipated it will be installed one (1) to two (2) feet below the existing ground surface or per applicable codes and regulations. The means and methods for excavation of the utility trench and soil handling is detailed in Section 2.4: Impacted Soil Handling.

1.4.5 Placement of Cover Material

Cover material will be required in RI delineated grid cells of the Site exhibiting landfill mass at the surface, where less than one foot of surface soil is present, and where RI surface and shallow soil sampling results indicate contaminants in the top one (1) foot of soil at concentrations exceeding Industrial Use SCOs.

The cover material will be one (1) foot in thickness and will be underlain by filter fabric. The filter fabric will serve as a visual demarcation layer between the bottom of the cover material and top of the exposed landfill waste and/or impacted soils. The cover material

will consist of imported fill material. The imported fill will require chemical testing prior to importation onto the Site. Detail regarding imported fill is provided in Section 5.3: Imported Fill Testing. The contractor will be required to provide filter fabric specification data to the Remediation Engineer for review and approval prior to installation of the filter fabric.

Areas of the Site requiring cover material will be surveyed prior to the placement of the material. The survey will establish the vertical elevation of the Site as well as the horizontal limits of the areas where cover material is required. Once the cover material has been placed, a follow up survey will be completed to document that a minimum of 1-foot of material has been placed. The survey data will be incorporated into a record drawing that will be included in the Final Engineering Report (FER).

1.4.6 Installation of Access Road

A gravel surfaced 20 foot wide access road will be installed within northern portions of the Site, as depicted on Figure 3. The access road will be installed to provide access to the future solar farm arrays and related equipment. The access road will serve as cover material if it traverses portions of the Site that requires the installation of cover material. A demarcation filter fabric will also be installed beneath the access road where required for deficient cover material.

1.5 Remedial Treatment Units

The entire BCP Site, the limits of which are shown on Figure 2, is considered to be one (1) remedial treatment unit or area of concern. The BCP Site is within the overall NYSDEC Class 3 designated site.

1.6 Applicable NYS Standards, Criteria and Guidance (SCGs)

Remediation of the Site's media (soil, groundwater, surface water, sediment) is not anticipated to be completed as a function of the proposed IRMs, however, continued monitoring of aqueous media may be required. SCGs will be applicable to the importation of fill material to be used as cover material in select portions of the Site. Imported fill material that requires chemical testing will be required to meet Industrial Use SCOs (Site's intended use) promulgated in DER-10 Appendix 5: Allowable Constituent Levels for Imported Fill or Soil, as listed in the following table.

Media	Regulation	SCGs
Imported Fill Requiring Chemical Testing	DER-10/Technical Guidance for Site Investigation and Remediation (May 3, 2010)	Appendix 5: Allowable Constituent Levels for Imported Fill or Soil, Subdivision 5.4(e) of DER-10 (See Appendix A).
Groundwater	NYSDEC Division of Water TOGS 1.1.1	Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998 with Addendums))
Surface Water	NYSDEC Division of Water TOGS 1.1.1	Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998 with Addendums))

The NYSDEC Division of Water TOGS 1.1.1 document is not included, but the standards or guidance values for potential long-term monitoring are the ambient groundwater (GA class) values and most stringent non-H(WS) type freshwater class.

1.7 Interim Remedial Measures Implementation Schedule

The IRMs are anticipated to be completed in tandem with the RI field tasks. Per the proposed project schedule in Appendix D of the RI Work Plan, the IRMs are anticipated to be completed during the months of July, August and September of 2021. For convenience, the RI Work Plan preliminary project schedule is included as Exhibit 1.

The goal of implementing the IRMs listed in this document, and for completion of any additional unanticipated IRMs, is to obtain a "No Further Action" determination from the Department in the Decision Document. The Department's issuance of a "No Further Action Determination" will be based on its review of the Construction Completion Report (CCR) prepared for the IRMs. Upon issuance of the "No Further Action" determination, the CCR will be converted into a FER for the Department's review and approval. The FER will be submitted to the Department in the first quarter of 2022.

1.8 Citizen Participation

The Department will issue a Fact Sheet to the affected public notifying a 45-day public comment period for this IRM Work Plan and the RI Work Plan. Upon completion of the 45-day public comment period, any public and/or Department comments will be addressed and the IRM Work Plan will be finalized.

2.0 TEMPORARY CONSTRUCTION FACILITIES

2.1 Site Security

The Site will be secured via the installation of permanent security fencing with a lockable gate. The approximate locations of the fencing and gate are depicted on the Proposed Site Layout (Figure 3). The fencing and gate will be installed after the Site vegetation has been cleared. The fencing is a permanent component that will secure the Site from potential trespassers and curious bystanders during completion of the IRMs and when the Site is redeveloped into a solar farm.

During completion of the IRMs, a sign in/out sheet will be maintained by the contractor to track persons entering/exiting the Site.

2.2 Trailers/Office Space

If necessary, a construction office trailer will be provided by the contractor for use by the Remediation Engineer's field representative and Department personnel. The space shall include a desk or table and chair to work on and power to charge field monitoring equipment daily. A minimum area, generally six (6) feet by six (6) feet with at least two outlets, should be sufficient.

2.3 Equipment Decontamination

The tires, tracks or other apparatus of construction equipment and vehicles that come into contact with the Site's existing cover material will be considered potentially contaminated. Prior to the equipment and vehicles exiting the Site or prior to entering an area of the Site that contains imported cover material, the equipment will be decontaminated in a manner that removes adhered soils and residues.

An environmental contractor will be retained to construct, operate, maintain and disassemble a decontamination pad. The decontamination pad will be located within the northwestern portion of the Site in the vicinity of the proposed access gate (see Figure 3), or other equal area within the Site. The decontamination pad will be constructed such that portions of construction equipment and vehicles that come into contact with the Site's soils are decontaminated employing a high pressure washer or truck washing

station. The decontamination pad/station will be constructed to capture soil, residues and water employed during the decontamination effort. The environmental contractor will be required to submit a schematic for the proposed construction of the decontamination pad. The proposed decontamination pad schematic will need to be reviewed and approved by the Remediation Engineer prior to installation and operation.

As an alternative to decontamination explained above, but mainly for trucks delivering imported fill, placement of filter fabric and/or imported fill tested to meet project SCGs would be placed in a manner to mitigate the vehicles from encountering existing cover material. Essentially, an access road of clean material would be placed at the Site entrance where placement of cover would then start and continue into the Site so the vehicles making deliveries would not come into contact with exposed landfill materials.

The environmental contractor will be responsible for the off-site disposal of soils, residues and water generated from the decontamination procedures. The contractor will be required to submit pertinent documentation (waste profiles, disposal facility approvals, part 364 trucking permits, etc.) to the Remediation Engineer for review and approval prior to the off-site disposal of decontamination spoils.

Vehicles entering and exiting the Site will be subject to the requirements of the Site specific erosion and sediment control measures outlined in this IRM Work Plan and the Site specific Stormwater Pollution Prevention Plan (SWPPP), which shall include the requirements of a stabilized construction entrance to mitigate soil from being tracked off-site and onto roadways. The SWPPP must be prepared in accordance with the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity and will be submitted as a separate document. The public roadway (Oakwood Avenue) will be monitored by the Remediation Engineer's designated representative. If soil tracking is apparent it will require cleanup, and appropriate improvements to the erosion and sediment controls will be reviewed and implemented as necessary.

2.4 Impacted Soil Handling

The Site's soils may be disturbed during clearing of vegetation; localized grading; removal of partially buried surficial solid wastes; and installation of underground utilities.

The analytical results for the RI and SC surface soil sampling, and RI shallow soil sampling (if available) will be provided to any Site work contractor prior to soil disturbance to assess contaminants in the Site's soil and their preparation of a site-specific Health and Safety Plan (HASP). The HASP shall be provided to the Remediation Engineer as a matter of record to document it exists.

Soils adhering to cleared vegetation will be removed to the extent practicable and allowed to fall to the ground surface. The soils will be removed prior to any mechanical chipping of the vegetation and/or the on-Site stockpiling or off-site disposal of the vegetation. The Remediation Engineer's designated representative will observe the cleared vegetation to document that the soils have been adequately removed.

Soils adhering to partially buried surficial solid wastes will be removed and left on-site within the limits of the landfill footprint provided it ends up beneath the demarcation fabric and 1-foot surface cover. The adhered soils will be removed from the solid wastes via manual methods (i.e., broom). The Remediation Engineer's designated representative will observe the solid wastes to ensure that soils have been adequately removed prior to off-site disposal.

The Site's soils may need to be minimally graded to accommodate installation of the concrete ballasts/posts of the solar farm arrays, the access road into the Site and for other localized Site contouring needs for stormwater management. Grading of soils will be confined within the Site boundaries.

Soils may need to be excavated for installation of underground utilities in the vicinity of the access road (see Figure 3). The excavations will only extend to the depths necessary to accommodate the installation of the utilities, which is estimated at one (1) to two (2) feet below existing grades. The excavations will not be over-excavated. Reasonable attempts will be made to backfill the excavations with the excavation spoils. Any excess excavation spoils will be spread atop the ground surface in the vicinity of where the spoils originated from. The utility excavations will not take place within portions of the Site where landfill mass is exposed at the ground surface.

Although not anticipated, an environmental contractor will be retained to manage off-site disposal of excess soils generated from the aforementioned activities. The contractor will be required to submit pertinent documentation (waste profiles, disposal facility

approvals, Part 364 trucking permits, etc.) to the Remediation Engineer for review and approval prior to the off-site disposal of excess soils.

2.5 Groundwater Management

Groundwater is not anticipated to be encountered during completion of the IRMs and Site redevelopment. Water levels were obtained from existing overburden and bedrock monitoring wells in March 2021. The water levels depicted depths to groundwater of approximately 13 to 40-feet below grade in the overburden wells and approximately 8 to 19 feet below grade in the bedrock wells.

2.6 Utility Disconnects

There are no known utilities (underground water, sewer, electric, gas, fiber optic, etc.) servicing the Site. However, it will be the contractor's responsibility to locate utilities and disconnect/terminate them per State, City and County regulations, or properly reroute or protect them during completion of the IRMs in cooperation with applicable utility providers.

2.7 Construction Entrance

A stabilized construction entrance(s) will be installed in accordance with the Site-specific SWPPP to mitigate the tracking of potentially contaminated fill/soil onto public rights-of-way from vehicle traffic exiting the Site. The construction entrance will be installed in the northwestern portion of the Site in the vicinity of the access gate shown on Figure 3.

3.0 SITE CONTROLS DURING REMEDIAL ACTION

3.1 Stormwater Management

The cumulative area of Site disturbance for the IRM will exceed one (1) acre, requiring the Volunteer to obtain coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity before commencing construction activity.

In accordance with the New York Guidelines for Urban Erosion and Sediment Control and the New York State Stormwater Management Design Manual, erosion and sediment control measures, pollution prevention measures, and if applicable, post-construction water quality treatment, shall be designed and presented in the form of a Stormwater Pollution Prevention Plan (SWPPP), which will be submitted as a separate document. The SWPPP will be updated, as warranted, to include amended erosion and sediment control measures as conditions warrant.

The following forms are needed to be completed and submitted to comply with the requirements of the General Permit for Stormwater Discharges from Construction Activity - GP-0-20-001:

- Notice of Intent (NOI), which is a request for coverage under the General Construction Stormwater Permit and can only be submitted electronically to the State;
- SWPPP Acceptance Form, which is required along with the NOI because the Site is located within the boundaries of an MS4. The SWPPP must be reviewed and accepted by the MS4 prior to submitting their NOI to the Department; and
- Notice of Termination (NOT), which is a notification that the construction project is complete and has met the requirements of the construction permit.

Directions on how to prepare/submit the NOI, NOT and SWPPP Acceptance forms are available through DEC's website. The Town of Brunswick, as the MS4 for this Site, will need to review and approve the site specific SWPPP. A copy will be made available to NYSDEC upon request.

3.2 Air Monitoring

A Community Air Monitoring Plan (CAMP) will be followed during ground intrusive IRMs. A copy of the CAMP is presented in Appendix B.

3.3 Noise and Vibration

Potential sources of noise and vibration include construction and vehicle traffic entering and exiting the Site along the eastern side of Oakwood Avenue; chain saws used for Site clearing; hammering used for installation of security fencing posts; and heavy construction equipment used for localized grading, excavation for the installation of utilities, and placement of cover material.

The nearest developed areas in the Site vicinity include an apartment/townhouse complex located approximately 225 feet to the west of the Site and a commercial haunted house and paintball facility located approximately 75 feet to the east of the Site. Potential noise and vibration generated during the IRMs are not viewed as potentially impacting these developed areas as there is an approximate 150 foot wide tree buffer between the Site and the apartment/townhouse complex to the west and the haunted house and paintball facility is operated on an intermittent seasonal basis only.

Construction practices and vehicle traffic may be adjusted should complaints be received from nearby residences and business entities.

3.4 Dust Control

Dust suppression techniques will be required, as necessary, to control fugitive dust to the extent practical during the IRMs. Such techniques must be employed, at a minimum, if the community air monitoring results indicate that particulate levels are above action levels. Efforts will be taken to inhibit visible and/or fugitive dusts. Techniques to be utilized by the contractor may include one or more of the following:

- Applying water to haul roads.
- Wetting equipment and excavation faces.
- Spraying water on buckets during localized grading and excavation activities.
- Hauling materials in containers or vehicles with solid tarp covers.

- Restricting vehicle speeds on-site.
- Covering excavated areas and materials after excavation immediately after activity ceases.

The contractor will be required to perform dust control measure in a manner consistent with the applicable portions of the "New York Guidelines for Urban Erosion and Sediment Control" and the "New York State Stormwater Management Design Manual".

3.5 Construction Observation and Certification

C.T. Male will provide full-time observation during the IRMs. At the point in construction when the environmental related work tasks have been completed (i.e., clearing, removal of surface solid wastes, installation of fencing, localized grading and excavation, placement of cover material and dismantling of the decontamination pad is completed; and CAMP monitoring is no longer required, etc.), construction observation by C.T. Male will cease, unless some other unforeseen conditions are identified.

Periodic observation during the IRM will be conducted by a C.T. Male Remediation Engineer to provide the required professional engineer certification of the CCR and FER. The Remediation Engineer will supervise the construction observer (field representative) during the IRM to document that the project is implemented in accordance with the Department approved IRM Work Plan. The Remediation Engineer will also provide engineering review of remedial related contractor submittals, interpret/respond to questions from the contractor on this IRM Work Plan, approve field changes for the IRM related work prior to implementation and will interact with NYSDEC, as necessary.

Deviation to the IRM Work Plan will not be allowed without pre-approval by the Remediation Engineer and as necessary, consultation with the Department. Deviations to the work plan will be documented and described in the FER.

3.6 Odor Control

If nuisance odors are identified to extend beyond the BCP Site boundaries during the IRM activities, measures that may be implemented to abate the nuisance odors include limiting the area of work, use of chemical odorants via spray or misting systems, and use of staff to monitor odors in surrounding areas.

3.7 Vehicle Traffic

Vehicles will be entering and exiting the Site along the eastern side of Oakwood Avenue during implementation of the IRMs. Vehicles entering and exiting the Site will likely include the following.

- Daily workers that will likely enter and exit the Site in the morning and afternoon pursuant to their work shift and sporadically during meal breaks. Based on the scope of the IRMs, it is anticipated that a maximum of 10 workers will be on the Site on any given day. Workers entering and exiting the Site are not viewed as having the potential to disrupt traffic flow on Oakwood Avenue.

- Construction equipment (vegetation clearing equipment, excavator, fence post installation equipment, etc.) will be delivered to the Site on an intermittent basis only and are not viewed as having the potential to disrupt traffic flow on Oakwood Avenue. When construction equipment is delivered, flagman shall be used if there is any delay in getting this equipment onto the Site swiftly.

- Trucks carrying cleared vegetation, solid wastes, cover materials and other potentially impacted material will enter and exit the Site from Oakwood Avenue on an intermittent basis only and are not viewed as having the potential to disrupt traffic flow on Oakwood Avenue. These trucks must not be queued along Oakwood Avenue. They must be staged within the Site or staggered so that they are pulling right into the Site without waiting along the shoulder of Oakwood Avenue. Truck drivers will be reminded to not leave their trucks idling while waiting.

In the unlikely event that the flow of traffic along Oakwood Avenue could be disrupted from the above referenced vehicles, construction equipment and truck traffic, it will be the contractor's responsibility to immediately provide traffic control utilizing a flagman or other equal methods. Work practices shall be reviewed and resolved so that traffic issues don't happen routinely.

4.0 HEALTH AND SAFETY PLAN (HASP)

4.1 General

Health and safety procedures to be followed by C.T. Male will be conducted in accordance with the site-specific Health and Safety Plan (HASP), which is included in Appendix C. The HASP will be available at the Site during the IRM work.

To address work Site safety regarding COVID-19, C.T. Male has utilized information from OSHA, CDC, NYSDOH, NYS, and other public officials. C.T. Male staff shall follow C.T. Male's "Safety Plan for COVID-19", dated November 2020. For field activities, C.T. Male shall follow C.T. Male's Standard Operating Procedure (SOP) – "Procedures for field staff in relation to COVID-19 or other virus", dated March 19, 2020, which is included in Attachment A of the HASP, which is presented in Appendix C.

The contractor(s) completing the IRMs will each be required to provide a site specific HASP that is certified by a Certified Industrial Hygienist, Certified Safety Professional or Remediation Engineer determined equivalent safety professional. The contractor's employees will be required to have read and understood their company's site specific HASP prior to completing the work.

4.2 Safety Meetings

Toolbox safety meetings shall be conducted by C.T. Male for C.T. Male personnel at the beginning of each work week. These meetings can be performed in person or remotely through Microsoft Teams or GoToMeeting platform depending on the level of COVID restrictions.

The Contractor will be encouraged to perform regular safety meetings in accordance with their safety plan.

4.3 Training

C.T. Male staff will be required to have the OSHA-10-Hour Construction Safety Course and OSHA 40-Hour HAZWOPER Training to perform observation of IRM activities. The Contractor will be encouraged to have similar training although it is the contractor's responsibility to determine the level of training for their employees working on the IRM.

5.0 CONFIRMATION AND DOCUMENTATION SAMPLING

5.1 General

The proposed IRMs for the Site do not include the remediation of impacted soil. As such, confirmatory post-excavation soil sampling is not anticipated. In the event that unforeseen events dictate the collection of confirmatory post-excavation soil samples for laboratory analyses, the samples will be collected per NYSDEC DER-10 Section 5.5(c)3.iii.(1)(A) to (D). The samples will be analyzed for the TCL of VOCs, SVOCs, pesticides and PCBs, the TAL of metals (including mercury). hexavalent chromium, cyanide and the emerging contaminants (ECs) 1,4-dioxane and the NYS list of 21 per- and polyfluorinated alkyl substances (PFAS). The analytical results will be compared to SCOs for Industrial Use Sites promulgated in Table 375-6.8(b): Restricted Use Soil Cleanup Objectives of 6 NYCRR Part 375. Table 375-6.8(b) is included in Appendix A.

5.2 Waste Profiling Samples

Items that may require waste profiling for off-site disposal include surface solid wastes that contain unknown liquids and/or solids, soils and residual soils and water from decontamination activities.

The environmental contractor will be responsible to collect the requisite number and type of media samples and perform the requisite laboratory analyses per the requirements of the disposal facilities in consultation with the Remediation Engineer. The analytical results and disposal facility approval letters will be provided to the Remediation Engineer for review and approval prior to the off-site disposal of the aforementioned wastes.

5.3 Imported Fill Testing

The source of the fill for the cover material and the analytical data will be provided to the Remediation Engineer and the Department for review and approval prior to importing the fill to the Site. The sampling and analysis requirements for fill imported to the Site are set forth in NYSDEC DER-10 Section 5.4(e)10. The following requirements must also be met:

-All materials proposed for import onto the Site will be approved by the certifying Remediation Engineer and the Department, and will be in compliance with provisions in 6 NYCRR Part 375 and NYSDEC DER-10 prior to delivery to the Site.

-Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported onto the Site.

-All imported soils will meet the backfill quality standards established in 6 NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are listed in the table in Appendix A for Commercial or Industrial Use Sites.

-The Department may require that select samples of imported fill be analyzed for the ECs. The EC analytical results will be reviewed by the Remediation Engineer and as necessary the Department to determine if the fill material is suitable for import onto the Site.

-Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill objectives for this Site, will not be imported onto the Site without prior approval by the Remediation Engineer and the Department Project Manager. Solid waste will not be imported onto the Site.

-Trucks entering the Site with imported soils will be securely covered with tight fitting solid covers. Imported soils will be stockpiled in a designated area of the Site and covered to prevent dust releases.

5.4 Quality Control and Deliverables

Quality control (QC) samples will be required to be collected in tandem with the confirmatory post-excavation soil samples only (see Section 5.1). QC samples are not required for the waste profiling and imported fill sampling. The QC samples will be collected and analyzed at a ratio of one (1) set of QC samples per 20 soil samples. The QC samples will include a blind field duplicate (FD), matrix spike (MS), matrix spike duplicate (MSD) and Equipment Blank (EB). A field trip blank of water will also submitted with samples requiring analyses for PFAS.

The laboratory, a New York State Department of Health certified laboratory under their Environmental Laboratory Approval Program (ELAP), will provide the analytical results in DEC ASP Category B Data Deliverable format for subsequent third party data validation. Data validation will be performed in accordance with the USEPA National

and Regional Validation Guidelines/Procedures to determine the applicable qualifications of the data. The validator will then prepare a Data Usability Summary Report (DUSR).

Data validation and the DUSR will only be performed on the confirmatory post-excavation soil samples, if applicable. Data validation and DUSRs will not be required for the waste profiling and imported fill sampling.

All of the laboratory data will also be submitted electronically to NYSDEC in Version 4 EQuIS database format.

6.0 APPLICABLE PERMITS AND RELATED

6.1 General

Although potentially described elsewhere in this IRM Work Plan, this section is to recap the applicable permits or related notifications with external agencies that will be required by the contractor completing the IRM work. First and foremost, this IRM Work Plan must be approved in writing by NYSDEC.

6.2 Construction SWPP Plan Notice of Intent (NOI)

A Notice of Intent (NOI) is required to be electronically submitted to NYSDEC five (5) days prior to Site disturbance for coverage under SPDES General Permit GP-0-20-001. Coordination is required with the Town of Brunswick, as an MS4, for review and approval of the SWPPP prior to submission of the NOI.

The NOT is a required element of the SWPP Plan, but will be one of the last close-out items for the Site

6.3 Building Permit

Municipal permits and approvals related to the project will be secured as required.

7.0 SITE RESTORATION

7.1 General

The Site will be restored to grade so that there are no open excavations (i.e., removal of partially buried surface solid wastes, utility installation, etc.).

Cover material will be placed in areas of the Site where the landfill mass is either exposed at the ground surface or less than one (1) foot beneath existing soils, and RI surface and shallow soils exceed Industrial Use SCOs. A demarcation fabric must be placed prior to installation of imparted cover material to differentiate between existing site soils and tested clean imported fill. The horizontal limits and vertical elevation of the demarcation fabric will be field surveyed for documentational purposes. Imported backfill for the cover material will be tested in accordance with Section 5.3.

Disturbed areas of the site, including where the new surface cover is installed, will be re-vegetated. The contractor shall stabilize and promote adequate growth using industry standard techniques.

8.0 REPORTING AND FINAL ENGINEERING REPORT

8.1 Weekly Progress Reports

Weekly progress reports will be submitted to the DEC Project Manager via email during implementation of the IRMs. The progress report will briefly summarize the IRM activities completed at the Site for the previous week. The progress report will be submitted at the beginning of the following week. The format will be in a bulleted style generally highlighting the major items accomplished during the previous week. Results of the CAMP will also be included in the weekly progress reports.

8.2 Monthly Progress Reports

The status of IRMs will be reported in the monthly progress reports that are currently being provided to the Department per the Brownfield Cleanup Agreement (BCA). The reports will be submitted to the Department, with a copy to the NYS Department of Health Project Manager and pertinent personnel representing the Volunteer. The progress reports will be submitted by the 10th day of each month.

8.3 Construction Completion Report

Upon completion of the IRMs, a CCR will be prepared that summarizes the work completed and results of the implemented IRMs. Any deviations from the IRM Work Plan will also be discussed in the CCR. The CCR will be prepared in general accordance with the CCR requirements promulgated in Section 5.8 of NYSDEC DER-10, as summarized below.

- The final CCR submitted to the Department for approval will be prepared, stamped, certified and signed by an individual licensed or otherwise authorized in accordance with Article 145 of the Education Law to practice the profession of engineering using the appropriate certification provided in Table 1.5 of NYSDEC DER-10.
- A description of the IRMs, as constructed, pursuant to the DEC-approved IRM Work Plan.

- A summary of the IRMs completed, including description of problems encountered and resolved, summary of changes to the IRM Work Plan, and listing, quantity and disposal location of each waste stream.
- Tables and figures containing pre- and post-remedial data keyed appropriately so that completion of the IRMs is documented.
- A description of the applicable areas of IRM compliance.
- Drawings showing the excavation limits and end-point soil sampling locations, if applicable.
- Executed manifests documenting off-site transport of the waste materials.
- Analytical results of the excavation end-point soil samples (if needed), waste profile samples and imported fill samples; including laboratory data sheets and the required laboratory data deliverables, if applicable.

The CCR will be converted into a Final Engineering Report (FER) upon the Department's issuance of a "No Further Action Determination" in the Decision Document. The FER will be similar to the CCR with the exception of additional language in the FER pertaining to easements and other appropriate information.

FIGURES

Old Troy Municipal Incinerator Site Location

Town of Brunswick — Rensselaer County, NY

0 1,000 2,000 4,000 FT

1 inch = 2,000 feet

Map Note: The locations and features depicted on this map are approximate and do not represent a field survey.

C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 • FAX 518.786.7299

Project Number: 20.0611
Data Source: NYSGIS Clearinghouse
Projection: State Plane NAD83 NYE (Feet)
Date: October 29, 2020
File: OldTroyMunicipalIncineratorSite_LocationTopoMap_11x17.mxd
GIS: D Landreville

Legend
Proposed BCP Site Boundary

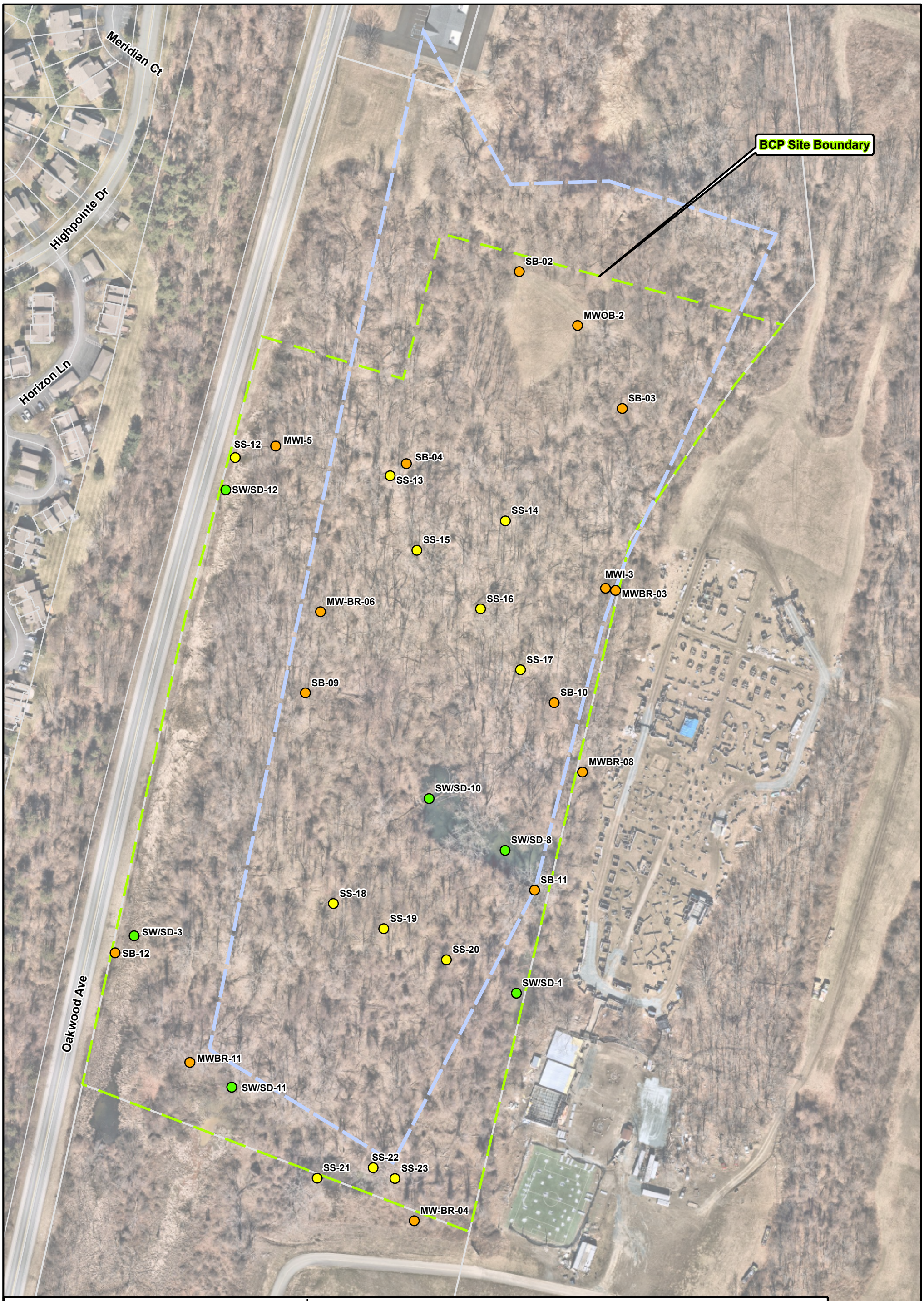

Figure 2: Site Features Map
Old Troy Municipal Incinerator Site

Town of Brunswick — **Rensselaer County, NY**

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518.786.7400 * FAX 518.786.7299

0 75 150 300 FT

1 inch = 150 feet

Map Note: The locations and features depicted on this map are approximate and do not represent a field survey.

Project Number: 20.0611
Data Source: NYSGIS Clearinghouse
Projection: State Plane NAD83 NYE (Feet)
Date: April 14, 2021
File: Figure2_SiteFeaturesMap_OTMI_11x17.mxd
GIS: D Landreville

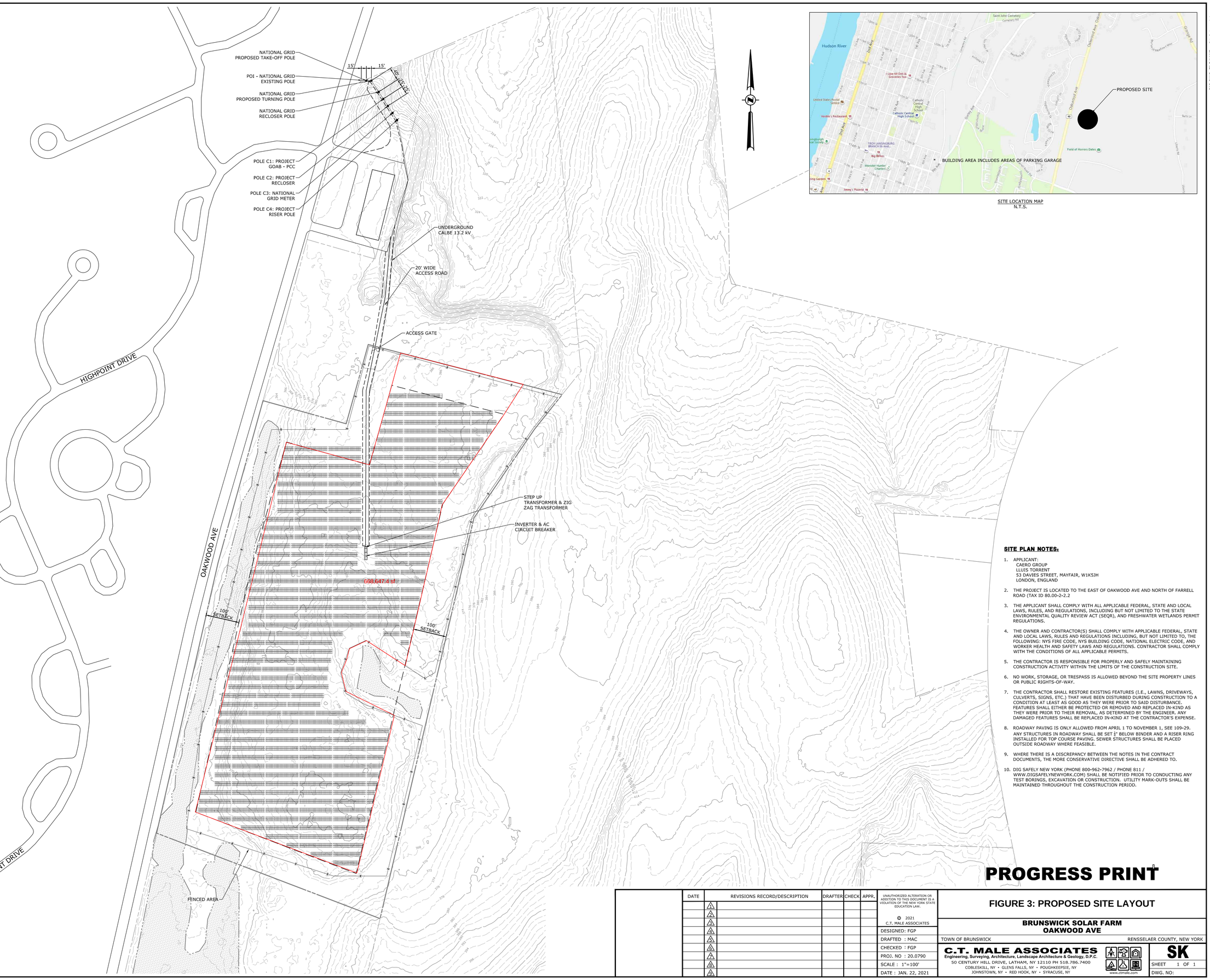
Legend

Historic Sampling Locations
- Approximate Location of Surface Water/Sediment Sample
- Approximate Location of Subsurface Soil/Groundwater Sample
- Approximate Location of Surface Soil Sample
- Approximate Landfill Boundary
- BCP Site Boundary
- Tax Parcels
- Roads

XREFS: NONE

PROJECT NUMBER: 20.0790

CAD DWG. FILE NAME: SK_Oakwood.dwg



SITE LOCATION MAP
N.T.S.

SITE PLAN NOTES:

1. APPLICANT:
   CAERO GROUP
   LLUIS TORRENT
   53 DAVIES STREET, MAYFAIR, W1K5JH
   LONDON, ENGLAND
2. THE PROJECT IS LOCATED TO THE EAST OF OAKWOOD AVE AND NORTH OF FARRELL ROAD (TAX ID 80.00-2-2.2
3. THE APPLICANT SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS, INCLUDING BUT NOT LIMITED TO THE STATE ENVIRONMENTAL QUALITY REVIEW ACT (SEQR), AND FRESHWATER WETLANDS PERMIT REGULATIONS.
4. THE OWNER AND CONTRACTOR(S) SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING: NYS FIRE CODE, NYS BUILDING CODE, NATIONAL ELECTRIC CODE, AND WORKER HEALTH AND SAFETY LAWS AND REGULATIONS. CONTRACTOR SHALL COMPLY WITH THE CONDITIONS OF ALL APPLICABLE PERMITS.
5. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY AND SAFELY MAINTAINING CONSTRUCTION ACTIVITY WITHIN THE LIMITS OF THE CONSTRUCTION SITE.
6. NO WORK, STORAGE, OR TRESPASS IS ALLOWED BEYOND THE SITE PROPERTY LINES OR PUBLIC RIGHTS-OF-WAY.
7. THE CONTRACTOR SHALL RESTORE EXISTING FEATURES (I.E., LAWNS, DRIVEWAYS, CULVERTS, SIGNS, ETC.) THAT HAVE BEEN DISTURBED DURING CONSTRUCTION TO A CONDITION AT LEAST AS GOOD AS THEY WERE PRIOR TO SAID DISTURBANCE. FEATURES SHALL EITHER BE PROTECTED OR REMOVED AND REPLACED IN-KIND AS THEY WERE PRIOR TO THEIR REMOVAL, AS DETERMINED BY THE ENGINEER. ANY DAMAGED FEATURES SHALL BE REPLACED IN-KIND AT THE CONTRACTOR'S EXPENSE.
8. ROADWAY PAVING IS ONLY ALLOWED FROM APRIL 1 TO NOVEMBER 1, SEE 109-29. ANY STRUCTURES IN ROADWAY SHALL BE SET ½" BELOW BINDER AND A RISER RING INSTALLED FOR TOP COURSE PAVING. SEWER STRUCTURES SHALL BE PLACED OUTSIDE ROADWAY WHERE FEASIBLE.
9. WHERE THERE IS A DISCREPANCY BETWEEN THE NOTES IN THE CONTRACT DOCUMENTS, THE MORE CONSERVATIVE DIRECTIVE SHALL BE ADHERED TO.
10. DIG SAFELY NEW YORK (PHONE 800-962-7962 / PHONE 811 / WWW.DIGSAFELYNEWYORK.COM) SHALL BE NOTIFIED PRIOR TO CONDUCTING ANY TEST BORINGS, EXCAVATION OR CONSTRUCTION. UTILITY MARK-OUTS SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.

PROGRESS PRINT

DATE		REVISIONS RECORD/DESCRIPTION	DRAFTER	CHECK	APPR.
	1				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				

DESIGNED: FGP
DRAFTED : MAC
CHECKED : FGP
PROJ. NO : 20.0790
SCALE : 1"=100'
DATE : JAN. 22, 2021

FIGURE 3: PROPOSED SITE LAYOUT

BRUNSWICK SOLAR FARM
OAKWOOD AVE

TOWN OF BRUNSWICK — RENSSELAER COUNTY, NEW YORK

C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C.
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COBLESKILL, NY • GLENS FALLS, NY • POUGHKEEPSIE, NY
JOHNSTOWN, NY • RED HOOK, NY • SYRACUSE, NY
www.ctmale.com

SK
SHEET 1 OF 1
DWG. NO:

Meridian Ct

Proposed BCP Site Boundary

Parameter	SS-13 0.6" BGS 8/11/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Not Analyzed					
SVOCs	Below SCGs					
PESTICIDES						
4,4'-DDD	0.41	0.0033	2.6	13	92	180
4,4'-DDE	0.35	0.0033	1.8	8.9	62	120
4,4'-DDT	0.13	0.0033	1.7	7.9	47	94
PCBs	Below SCGs					
METALS						
Cadmium	3.3	2.5	2.5	4.3	9.3	60
Copper	93.2	50	270	270	270	10,000
Lead	677	63	400	400	1,000	3,900
Total Mercury	1.1	0.18	0.81	0.81	2.8	5.7
Silver	7.4	2	36	180	1,500	6,800
Zinc	743	109	2200	10,000	10,000	10,000
CYANIDE	Below SCGs					

Parameter	SS-12 0.6" BGS 8/11/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Not Analyzed					
SVOCs	Below SCGs					
PESTICIDES						
4,4'-DDT	0.0043	0.0033	1.7	7.9	47	94
PCBs	Non-Detect					
METALS						
Lead	183	63	400	400	1,000	3,900
Zinc	118	109	2200	10,000	10,000	10,000
CYANIDE	Non-Detect					

Parameter	SS-15 0.6" BGS 8/11/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Not Analyzed					
SVOCs	Below SCGs					
PESTICIDES						
4,4'-DDD	0.0048	0.0033	2.6	13	92	180
4,4'-DDE	0.011	0.0033	1.8	8.9	62	120
4,4'-DDT	0.047	0.0033	1.7	7.9	47	94
PCBs						
Total PCBs	0.36	0.1	1	1	1	25
METALS						
Copper	72.6	50	270	270	270	10,000
Lead	616	63	400	400	1,000	3,900
Total Mercury	0.79	0.18	0.81	0.81	2.8	5.7
Nickel	42.5	30	140	310	310	10,000
Zinc	374	109	2200	10,000	10,000	10,000
CYANIDE	Non-Detect					

Parameter	SS-14 0.6" BGS 8/11/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Not Analyzed					
SVOCs	Below SCGs					
PESTICIDES						
4,4'-DDT	0.0045	0.0033	1.7	7.9	47	94
PCBs	Below SCGs					
METALS						
Lead	237	63	400	400	1,000	3,900
Total Mercury	0.21	0.18	0.81	0.81	2.8	5.7
Zinc	204	109	2200	10,000	10,000	10,000
CYANIDE	Non-Detect					

Parameter	SS-16 0.6" BGS 8/11/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Not Analyzed					
SVOCs	Below SCGs					
PESTICIDES						
4,4'-DDE	0.006	0.0033	1.8	8.9	62	120
PCBs						
Total PCBs	0.96	0.1	1	1	1	25
METALS						
Copper	52.3	50	270	270	270	10,000
Lead	308	63	400	400	1,000	3,900
Total Mercury	0.34	0.18	0.81	0.81	2.8	5.7
Zinc	309	109	2200	10,000	10,000	10,000
CYANIDE	Non-Detect					

Parameter	SS-18 0.6" BGS 8/11/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Not Analyzed					
SVOCs	Non-Detect					
PESTICIDES	Non-Detect					
PCBs	Non-Detect					
METALS	Below SCGs					
CYANIDE	Non-Detect					

Parameter	SS-17 0.6" BGS 8/11/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Not Analyzed					
SVOCs	Below SCGs					
PESTICIDES						
4,4'-DDD	0.0064	0.0033	2.6	13	92	180
4,4'-DDE	0.078	0.0033	1.8	8.9	62	120
4,4'-DDT	0.23	0.0033	1.7	7.9	47	94
PCBs						
Total PCBs	0.23	0.1	1	1	1	25
METALS						
Cadmium	3	2.5	2.5	4.3	9.3	60
Copper	63.7	50	270	270	270	10,000
Lead	2010	63	400	400	1,000	3,900
Total Mercury	0.56	0.18	0.81	0.81	2.8	5.7
Silver	5.1	2	36	180	1,500	6,800
Zinc	879	109	2200	10,000	10,000	10,000
CYANIDE	Non-Detect					

Parameter	SS-19 0-6" BGS 8/11/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Not Analyzed					
SVOCs	Below SCGs					
PESTICIDES	Non-Detect					
PCBs	Non-Detect					
METALS	Below SCGs					
CYANIDE	Non-Detect					

Parameter	SS-20 0-6" BGS 8/11/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Not Analyzed					
SVOCs	Below SCGs					
PESTICIDES	Non-Detect					
PCBs	Non-Detect					
METALS	Below SCGs					
CYANIDE	Non-Detect					

Parameter	SS-22 0-6" BGS 8/11/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Not Analyzed					
SVOCs	Below SCGs					
PESTICIDES	Below SCGs					
PCBs	Non-Detect					
METALS						
Total Mercury	0.38	0.18	0.81	0.81	2.8	5.7
Zinc	314	109	2200	10,000	10,000	10,000
CYANIDE	Non-Detect					

Parameter	SS-21 0-6" BGS 8/11/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Not Analyzed					
SVOCs	Below SCGs					
PESTICIDES	Below SCGs					
PCBs	Non-Detect					
METALS						
Lead	252	63	400	400	1,000	3,900
Total Mercury	2.5	0.18	0.81	0.81	2.8	5.7
Zinc	217	109	2200	10,000	10,000	10,000
CYANIDE	Below SCGs					

Parameter	SS-23 0-6" BGS 8/11/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Not Analyzed					
SVOCs	Below SCGs					
PESTICIDES	Below SCGs					
PCBs	Non-Detect					
METALS	Below SCGs					
CYANIDE	Non-Detect					

SB-02
MWOB-2
SB-03
SS-12
MWI-5
SB-04
SS-13
SW/SD-12
SS-14
SS-15
MWI-3
MWBR-03
MW-BR-06
SS-16
SS-17
SB-09
SB-10
MWBR-08
SW/SD-10
SW/SD-8
SB-11
SS-18
SS-19
SW/SD-3
SB-12
SS-20
SW/SD-1
MWBR-11
SW/SD-11
SS-22
SS-21
SS-23
MW-BR-04

FIGURE 4: SURFACE SOIL EXCEEDING SCGs
Old Troy Municipal Incinerator Site

Town of Brunswick — **Rensselaer County, NY**

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518.786.7400 * FAX 518.786.7299

N W E S

0 75 150 300 FT

1 inch = 150 feet

Map Note: The locations and features depicted on this map are approximate and do not represent a field survey.

Project Number: 20.0611
Data Source: NYSGIS Clearinghouse
Projection: State Plane NAD83 NYE (Feet)
Date: March 30, 2021
File: OldTroyMunicipalIncineratorSite_ContaminentsinSoil_NoFigures_11x17.mxd
GIS: D Landreville

Legend

Historic Sampling Locations
- Approximate Location of Surface Water/Sediment Sample
- Approximate Location of Subsurface Soil/Groundwater Sample
- Approximate Location of Surface Soil Sample
- Approximate Landfill Boundary
- Proposed BCP Site Boundary
- Tax Parcels
- Roads

Meridian Ct

Highpointe Dr

Oakwood Ave

Proposed BCP Site Boundary

Parameter	SB-02 34-36' BGS 7/16/2007 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs						
Acetone	0.49	0.05	100	100	500	1,000
SVOCs	Below SCGs					
PESTICIDES						
4,4'-DDD	0.015	0.0033	2.6	13	92	180
4,4'-DDE	0.0072	0.0033	1.8	8.9	62	120
4,4'-DDT	0.015	0.0033	1.7	7.9	47	94
PCBs	Non-Detect					
METALS	Results Not Provided in 2008 SCR					
CYANIDE	Results Not Provided in 2008 SCR					

Parameter	MWOB-2 46-48' BGS 8/22/2005 Soil (mg/kg)	MWOB-2 52-54' BGS 8/25/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs							
Cis -1,2-Dichloroethene	6.9	ND	0.25	59	100	500	1,000
Ethylbenzene	1.4	150	1	30	41	390	780
Methylene chloride	0.83	ND	0.05	51	100	500	1,000
Toluene	17	3700	0.7	100	100	500	1,000
Total Xylenes	6	670	0.26	100	100	500	1,000
Trichloroethene	0.6	170	0.47	10	21	200	400
Vinyl chloride	0.77	ND	0.02	0.21	0.9	13	27
SVOCs	Below SCGs						
PESTICIDES							
4,4'-DDE	0.0061	ND	0.0033	1.8	8.9	62	120
PCBs							
Total PCBs	1	0.108	0.1	1	1	1	25
METALS							
Barium	407	95.4	350	350	400	400	10,000
Copper	208	38.6	50	270	270	270	10,000
Lead	1150	34.8	63	400	400	1,000	3,900
Total Mercury	1.5	0.024	0.18	0.81	0.81	2.8	5.7
Zinc	668	71.8	109	2200	10,000	10,000	10,000
CYANIDE	Below SCGs						

Parameter	SB-04 26-27' BGS 7/12/2007 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Below SCGs					
SVOCs	Non-Detect					
PESTICIDES	Non-Detect					
PCBs	Non-Detect					
METALS	Results Not Provided in 2008 SCR					
CYANIDE	Results Not Provided in 2008 SCR					

Parameter	SB-03 33-33.4' BGS 7/11/2007 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs						
Acetone	18	0.05	100	100	500	1,000
SVOCs	Below SCGs					
PESTICIDES	Non-Detect					
PCBs	Non-Detect					
METALS	Results Not Provided in 2008 SCR					
CYANIDE	Results Not Provided in 2008 SCR					

Parameter	MWBR-03 2-3' BGS 8/18/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs						
Methylene chloride	0.086	0.05	51	100	500	1,000
SVOCs	Below SCGs					
PESTICIDES	Non-Detect					
PCBs	Non-Detect					
METALS	Below SCGs					
CYANIDE	Non-Detect					

Parameter	MWBR-05 6-6.3' BGS 8/17/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs						
Methylene chloride	0.053	0.05	51	100	500	1,000
SVOCs	Below SCGs					
PESTICIDES						
4,4'-DDD	0.16	0.0033	2.6	13	92	180
4,4'-DDE	0.019	0.0033	1.8	8.9	62	120
PCBs						
Total PCBs	0.203	0.1	1	1	1	25
METALS						
Lead	454	63	400	400	1,000	3,900
Total Mercury	0.21	0.18	0.81	0.81	2.8	5.7
Zinc	175	109	2200	10,000	10,000	10,000
CYANIDE	Non-Detect					

Parameter	SB-10 24-26' BGS 7/12/2007 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Below SCGs					
SVOCs	Non-Detect					
PESTICIDES	Non-Detect					
PCBs	Non-Detect					
METALS	Results Not Provided in 2008 SCR					
CYANIDE	Results Not Provided in 2008 SCR					

Parameter	SB-09 23-25' BGS 7/12/2007 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Below SCGs					
SVOCs	Below SCGs					
PESTICIDES						
4,4'-DDD	0.01	0.0033	2.6	13	92	180
PCBs	Non-Detect					
METALS	Results Not Provided in 2008 SCR					
CYANIDE	Results Not Provided in 2008 SCR					

Parameter	MWBR-08 2.4' BGS 7/19/2007 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Results Not Provided in 2008 SCR					
SVOCs	Results Not Provided in 2008 SCR					
PESTICIDES	Results Not Provided in 2008 SCR					
PCBs	Results Not Provided in 2008 SCR					
METALS	Results Not Provided in 2008 SCR					
CYANIDE	Results Not Provided in 2008 SCR					

Parameter	SB-12 4.4-6' BGS 7/17/2007 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Below SCGs					
SVOCs	Below SCGs					
PESTICIDES	Below SCGs					
PCBs	Non-Detect					
METALS	Results Not Provided in 2008 SCR					
CYANIDE	Results Not Provided in 2008 SCR					

Parameter	SB-11 2-2.5' BGS 7/13/2007 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Below SCGs					
SVOCs	Non-Detect					
PESTICIDES	Non-Detect					
PCBs	Non-Detect					
METALS	Results Not Provided in 2008 SCR					
CYANIDE	Results Not Provided in 2008 SCR					

Parameter	MWBR-11 4-6' BGS 8/18/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Non-Detect					
SVOCs	Non-Detect					
PESTICIDES	Non-Detect					
PCBs	Non-Detect					
METALS						
Selenium	6.1	3.9	36	180	1,500	6,800
CYANIDE	Non-Detect					

Parameter	MWBR-04 8-9.4' BGS 8/19/2005 Soil (mg/kg)	Unrestricted Use SCOs	Residential Use SCOs	Rest. Residential Use SCOs	Commercial Use SCOs	Industrial Use SCOs
VOCs	Below SCGs					
SVOCs	Below SCGs					
PESTICIDES	Non-Detect					
PCBs	Non-Detect					
METALS	Below SCGs					
CYANIDE	Non-Detect					

SB-02

SB-04

SB-03

MWOB-2

MWBR-03

MW-BR-06

SB-09

SB-10

MWBR-08

SB-11

SB-12

MWBR-11

MW-BR-04

SS-12

MWI-5

SS-13

SW/SD-12

SS-14

SS-15

SS-16

SS-17

SW/SD-10

SW/SD-8

SS-18

SS-19

SS-20

SW/SD-1

SW/SD-3

SW/SD-11

SS-21

SS-22

SS-23

MWI-3

FIGURE 5: SUBSURFACE SOIL EXCEEDING SCGs
Old Troy Municipal Incinerator Site

Town of Brunswick — **Rensselaer County, NY**

C.T. MALE ASSOCIATES
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50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

N W E S

0 75 150 300 FT

1 inch = 150 feet

Map Note: The locations and features depicted on this map are approximate and do not represent a field survey.

Project Number: 20.0611
Data Source: NYSGIS Clearinghouse
Projection: State Plane NAD83 NYE (Feet)
Date: March 30, 2021
File: OldTroyMunicipallcineratorSite_ContaminentsinSoil_NoFigures_11x17.mxd
GIS: D Landreville

Legend

Historic Sampling Locations

- Approximate Location of Surface Water/Sediment Sample
- Approximate Location of Subsurface Soil/Groundwater Sample
- Approximate Location of Surface Soil Sample
- Approximate Landfill Boundary
- Proposed BCP Site Boundary
- Tax Parcels
- Roads

Sample ID: MWOB-02		
Sample Date: 8/6/2007, 8/9/2007		
Parameter	Conc.	SCG
1,1-Dichloroethene	13J	5
1,2-Dichlorobenzene	6J	3
1,2-Dichloroethane	23J	0.6
Benzene	570J	1
Chlorobenzene	38J	5
Chloroform	10J	7
cis-1,2-Dichloroethene	2,200J	5
Ethylbenzene	730J	5
Isopropylbenzene	7J	5
Styrene	55J	5
Toluene	70,000	5
Trichloroethene	15J	5
Vinyl Chloride	1,400J	2
Xylenes, Total	1,400J	5
Iron	33,900	300
Lead	207	25
Manganese	2,280	300
Selenium	26.2J	10
Sodium	94,800	20,000
Thallium	4.0J	0.5

Sample ID: MWI-5		
Sample Date: 8/7/2007		
Parameter	Conc.	SCG
Iron	40,600	300
Lead	457	25
Magnesium	50,200	35,000
Manganese	1,730	300
Selenium	24.3J	10
Sodium	39,900	20,000
Thallium	3.7J	0.5

Sample ID: MW-BR-06		
Sample Date: 8/6/2007		
Parameter	Conc.	SCG
Antimony	13.8J	3
Iron	1,230J	300
Magnesium	60,800	35,000
Manganese	2,210	300
Selenium	27.3J	10
Sodium	27,900	20,000

Sample ID: MW-BR-03		
Sample Date: 8/6/2007		
Parameter	Conc.	SCG
Benzene	8J	1
cis-1,2-Dichloroethene	140	5
Ethylbenzene	560	5
Isopropylbenzene	17	5
Toluene	4,800	5
Vinyl Chloride	12	2
Xylenes, Total	2,400	5
Iron	20,500	300
Manganese	3,750	300
Selenium	27.6J	10
Thallium	6.7J	0.5

Sample ID: MW-BR-08		
Sample Date: 8/8/2007		
Parameter	Conc.	SCG
Antimony	20.2J	3
Iron	4,510	300
Selenium	31.4J	10

Sample ID: MW-BR-11		
Sample Date: 8/9/2007		
Parameter	Conc.	SCG
Iron	23,900	300
Magnesium	85,700	35,000
Manganese	385	300
Selenium	27.9J	10

Sample ID: MW-BR-04		
Sample Date: 8/7/2007		
Parameter	Conc.	SCG
Chromium	83.6	50
Iron	69,000	300
Manganese	913	300
Selenium	24.6J	10
Thallium	4.9J	0.5

Proposed BCP Site Boundary

SB-02
MWOB-2
SB-03
MWI-5
SS-12
SW/SD-12
SB-04
SS-13
SS-14
SS-15
MWI-3
MWBR-03
MW-BR-06
SS-16
SS-17
SB-09
SB-10
MWBR-08
SW/SD-10
SW/SD-8
SB-11
SS-18
SS-19
SW/SD-3
SB-12
SS-20
SW/SD-1
MWBR-11
SW/SD-11
SS-21
SS-22
SS-23
MW-BR-04

Horizon
Oakwood Ave

FIGURE 6: GROUNDWATER EXCEEDING SCGs
Old Troy Municipal Incinerator Site

Town of Brunswick — **Rensselaer County, NY**

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518.786.7400 * FAX 518.786.7299

0 75 150 300 FT

1 inch = 150 feet

Map Note: The locations and features depicted on this map are approximate and do not represent a field survey.

Project Number: 20.0611
Data Source: NYSGIS Clearinghouse
Projection: State Plane NAD83 NYE (Feet)
Date: October 29, 2020
File: OldTroyMunicipalIcineratorSite_11x17.mxd
GIS: D Landreville

Legend

Historic Sampling Locations
- Approximate Location of Surface Water/Sediment Sample
- Approximate Location of Subsurface Soil/Groundwater Sample
- Approximate Location of Surface Soil Sample
- Approximate Landfill Boundary
- Proposed BCP Site Boundary
- Tax Parcels
- Roads

Meridian Ct
Highpointe Dr
Horizon Ln
Oakwood Ave
Proposed BCP Site Boundary
SB-02
MWOB-2
SB-03
SS-12
MWI-5
SB-04
SS-13
SW/SD-12
SS-14
SS-15
MWI-3
MWBR-03
MW-BR-06
SS-16
SS-17
SB-09
SB-10
MWBR-08
SW/SD-10
SW/SD-8
SB-11
SS-18
SS-19
SW/SD-3
SB-12
SS-20
SW/SD-1
MWBR-11
SW/SD-11
SS-21
SS-22
SS-23
MW-BR-04

Sample ID: SW-12		
Sample Date: 12/2/2005		
Parameter	Conc.	SCG
Selenium	5.1J	4.6

Sample ID: SW-10		
Sample Date: 12/1/2005		
Parameter	Conc.	SCG
Aluminum	692	100
Iron	855	300

Sample ID: SW-8		
Sample Date: 12/1/2005		
Parameter	Conc.	SCG
Iron	420	300

Sample ID: SW-3		
Sample Date: 12/2/2005		
Parameter	Conc.	SCG
Selenium	7.5J	4.6

Sample ID: SW-1		
Sample Date: 12/1/2005		
Parameter	Conc.	SCG
Iron	581	300
Selenium	26.9J	4.6

Sample ID: SW-11		
Sample Date: 12/1/2005		
Parameter	Conc.	SCG
Iron	4,110	300
Selenium	8.7J	4.6
Zinc	342	254

FIGURE 7: SURFACE WATER EXCEEDING SCGs
Old Troy Municipal Incinerator Site

Town of Brunswick — **Rensselaer County, NY**

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Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
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0 75 150 300 FT

1 inch = 150 feet

Map Note: The locations and features depicted on this map are approximate and do not represent a field survey.

Project Number: 20.0611
Data Source: NYSGIS Clearinghouse
Projection: State Plane NAD83 NYE (Feet)
Date: October 29, 2020
File: OldTroyMunicipalIcineratorSite_11x17.mxd
GIS: D Landreville

Legend

Historic Sampling Locations
- Approximate Location of Surface Water/Sediment Sample
- Approximate Location of Subsurface Soil/Groundwater Sample
- Approximate Location of Surface Soil Sample
- Approximate Landfill Boundary
- Proposed BCP Site Boundary
- Tax Parcels
- Roads

Meridian Ct

Highpointe Dr

Oakwood Ave

Proposed BCP Site Boundary

SB-02

MWOB-2

SB-03

SS-12

MWI-5

SB-04

SS-13

SW/SD-12

SS-14

SS-15

MWI-3

MWBR-03

MW-BR-06

SS-16

SS-17

SB-09

SB-10

MWBR-08

SW/SD-10

SW/SD-8

SB-11

SS-18

SS-19

SW/SD-3

SB-12

SS-20

SW/SD-1

MWBR-11

SW/SD-11

SS-21

SS-22

SS-23

MW-BR-04

Sample ID: SD-12			
Sample Date: 8/9/2005			
Parameter	Conc.	LEL SCG	SEL SCG
Arsenic	12.3	6.0	33.0
Cadmium	1.8	0.6	9.0
Chromium	41.6	26.0	110.0
Copper	88.8	16.0	110.0
Iron	39,000	20,000	40,000
Lead	526	31.0	110.0
Mercury	0.39	0.15	1.3
Nickel	38.3	16.0	50.0
Silver	2.9	1.0	2.2
Zinc	380	120.0	270.0

Sample ID: SD-3			
Sample Date: 8/8/2005			
Parameter	Conc.	LEL SCG	SEL SCG
Arsenic	7.6	6.0	33.0
Cadmium	0.99J	0.6	9.0
Chromium	29.7	26.0	110.0
Copper	45.9	16.0	110.0
Iron	27,300	20,000	40,000
Lead	109	31.0	110.0
Manganese	550	460.0	1,100.0
Nickel	28.6	16.0	50.0
Silver	1.4J	1.0	2.2
Zinc	163	120.0	270.0

Sample ID: SD-10			
Sample Date: 8/10/2005			
Parameter	Conc.	LEL SCG	SEL SCG
Cadmium	1.6	0.6	9.0
Copper	76.4	16.0	110.0
Iron	22,500	20,000	40,000
Lead	224	31.0	110.0
Mercury	0.39	0.15	1.3
Nickel	29.2	16.0	50.0
Silver	1.9	1.0	2.2
Zinc	297	120.0	270.0

Sample ID: SD-8			
Sample Date: 8/10/2005			
Parameter	Conc.	LEL SCG	SEL SCG
Cadmium	2.9	0.6	9.0
Chromium	31.4	26.0	110.0
Copper	105	16.0	110.0
Iron	20,300	20,000	40,000
Lead	65.9	31.0	110.0
Mercury	0.33	0.15	1.3
Nickel	41.7	16.0	50.0
Silver	2.7J	1.0	2.2
Zinc	472	120.0	270.0

Sample ID: SD-1			
Sample Date: 8/9/2005			
Parameter	Conc.	LEL SCG	SEL SCG
Arsenic	7.6	6.0	33.0
Cadmium	1.8	0.6	9.0
Chromium	32.6	26.0	110.0
Copper	79.9	16.0	110.0
Iron	29,400	20,000	40,000
Lead	78.4	31.0	110.0
Mercury	0.28J	0.15	1.3
Nickel	37.3	16.0	50.0
Silver	3.1	1.0	2.2
Zinc	312	120.0	270.0

Sample ID: SD-11			
Sample Date: 8/10/2005			
Parameter	Conc.	LEL SCG	SEL SCG
Antimony	6.7J	2.0	25.0
Arsenic	38.2	6.0	33.0
Cadmium	8.7	0.6	9.0
Copper	153	16.0	110.0
Iron	198,000	20,000	40,000
Lead	90.3	31.0	110.0
Manganese	4,420	460.0	1,100.00
Mercury	0.32	0.15	1.3
Nickel	20.8	16.0	50.0
Zinc	800	120.0	270.0

FIGURE 8: SEDIMENT EXCEEDING SCGs

Old Troy Municipal Incinerator Site

Town of Brunswick — **Rensselaer County, NY**

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N W E S

0 75 150 300 FT

1 inch = 150 feet

Map Note: The locations and features depicted on this map are approximate and do not represent a field survey.

Project Number: 20.0611
Data Source: NYSGIS Clearinghouse
Projection: State Plane NAD83 NYE (Feet)
Date: October 29, 2020
File: OldTroyMunicipalIcineratorSite_11x17.mxd
GIS: D Landreville

Legend

Historic Sampling Locations

- Approximate Location of Surface Water/Sediment Sample
- Approximate Location of Subsurface Soil/Groundwater Sample
- Approximate Location of Surface Soil Sample
- Approximate Landfill Boundary
- Proposed BCP Site Boundary
- Tax Parcels
- Roads

APPENDIX A

TABLES

(b) Restricted use soil cleanup objectives.

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Metals							
Arsenic	7440-38-2	16[f]	16[f]	16[f]	16[f]	13[f]	16[f]
Barium	7440-39-3	350[f]	400	400	10,000 [d]	433	820
Beryllium	7440-41-7	14	72	590	2,700	10	47
Cadmium	7440-43-9	2.5[f]	4.3	9.3	60	4	7.5
Chromium, hexavalent [h]	18540-29-9	22	110	400	800	1[e]	19
Chromium, trivalent [h]	16065-83-1	36	180	1,500	6,800	41	NS
Copper	7440-50-8	270	270	270	10,000 [d]	50	1,720
Total Cyanide [h]		27	27	27	10,000 [d]	NS	40
Lead	7439-92-1	400	400	1,000	3,900	63[f]	450
Manganese	7439-96-5	2,000[f]	2,000[f]	10,000 [d]	10,000 [d]	1600[f]	2,000[f]
Total Mercury		0.81[j]	0.81[j]	2.8[j]	5.7[j]	0.18[f]	0.73
Nickel	7440-02-0	140	310	310	10,000 [d]	30	130
Selenium	7782-49-2	36	180	1,500	6,800	3.9[f]	4[f]
Silver	7440-22-4	36	180	1,500	6,800	2	8.3
Zinc	7440-66-6	2200	10,000 [d]	10,000 [d]	10,000 [d]	109[f]	2,480
PCBs/Pesticides							
2,4,5-TP Acid (Silvex)	93-72-1	58	100[a]	500[b]	1,000[c]	NS	3.8
4,4'-DDE	72-55-9	1.8	8.9	62	120	0.0033 [e]	17
4,4'-DDT	50-29-3	1.7	7.9	47	94	0.0033 [e]	136
4,4'- DDD	72-54-8	2.6	13	92	180	0.0033 [e]	14
Aldrin	309-00-2	0.019	0.097	0.68	1.4	0.14	0.19
alpha-BHC	319-84-6	0.097	0.48	3.4	6.8	0.04[g]	0.02
beta-BHC	319-85-7	0.072	0.36	3	14	0.6	0.09
Chlordane (alpha)	5103-71-9	0.91	4.2	24	47	1.3	2.9

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
delta-BHC	319-86-8	100[a]	100[a]	500[b]	1,000[c]	0.04[g]	0.25
Dibenzofuran	132-64-9	14	59	350	1,000[c]	NS	210
Dieldrin	60-57-1	0.039	0.2	1.4	2.8	0.006	0.1
Endosulfan I	959-98-8	4.8[i]	24[i]	200[i]	920[i]	NS	102
Endosulfan II	33213-65-9	4.8[i]	24[i]	200[i]	920[i]	NS	102
Endosulfan sulfate	1031-07-8	4.8[i]	24[i]	200[i]	920[i]	NS	1,000[c]
Endrin	72-20-8	2.2	11	89	410	0.014	0.06
Heptachlor	76-44-8	0.42	2.1	15	29	0.14	0.38
Lindane	58-89-9	0.28	1.3	9.2	23	6	0.1
Polychlorinated biphenyls	1336-36-3	1	1	1	25	1	3.2
Semivolatiles							
Acenaphthene	83-32-9	100[a]	100[a]	500[b]	1,000[c]	20	98
Acenapthylene	208-96-8	100[a]	100[a]	500[b]	1,000[c]	NS	107
Anthracene	120-12-7	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Benz(a)anthracene	56-55-3	1[f]	1[f]	5.6	11	NS	1[f]
Benzo(a)pyrene	50-32-8	1[f]	1[f]	1[f]	1.1	2.6	22
Benzo(b)fluoranthene	205-99-2	1[f]	1[f]	5.6	11	NS	1.7
Benzo(g,h,i)perylene	191-24-2	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Benzo(k)fluoranthene	207-08-9	1	3.9	56	110	NS	1.7
Chrysene	218-01-9	1[f]	3.9	56	110	NS	1[f]
Dibenz(a,h)anthracene	53-70-3	0.33[e]	0.33[e]	0.56	1.1	NS	1,000[c]
Fluoranthene	206-44-0	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Fluorene	86-73-7	100[a]	100[a]	500[b]	1,000[c]	30	386
Indeno(1,2,3-cd)pyrene	193-39-5	0.5[f]	0.5[f]	5.6	11	NS	8.2
m-Cresol	108-39-4	100[a]	100[a]	500[b]	1,000[c]	NS	0.33[e]
Naphthalene	91-20-3	100[a]	100[a]	500[b]	1,000[c]	NS	12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
o-Cresol	95-48-7	100[a]	100[a]	500[b]	1,000[c]	NS	0.33[e]
p-Cresol	106-44-5	34	100[a]	500[b]	1,000[c]	NS	0.33[e]
Pentachlorophenol	87-86-5	2.4	6.7	6.7	55	0.8[e]	0.8[e]
Phenanthrene	85-01-8	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Phenol	108-95-2	100[a]	100[a]	500[b]	1,000[c]	30	0.33[e]
Pyrene	129-00-0	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Volatiles							
1,1,1-Trichloroethane	71-55-6	100[a]	100[a]	500[b]	1,000[c]	NS	0.68
1,1-Dichloroethane	75-34-3	19	26	240	480	NS	0.27
1,1-Dichloroethene	75-35-4	100[a]	100[a]	500[b]	1,000[c]	NS	0.33
1,2-Dichlorobenzene	95-50-1	100[a]	100[a]	500[b]	1,000[c]	NS	1.1
1,2-Dichloroethane	107-06-2	2.3	3.1	30	60	10	0.02[f]
cis-1,2-Dichloroethene	156-59-2	59	100[a]	500[b]	1,000[c]	NS	0.25
trans-1,2-Dichloroethene	156-60-5	100[a]	100[a]	500[b]	1,000[c]	NS	0.19
1,3-Dichlorobenzene	541-73-1	17	49	280	560	NS	2.4
1,4-Dichlorobenzene	106-46-7	9.8	13	130	250	20	1.8
1,4-Dioxane	123-91-1	9.8	13	130	250	0.1[e]	0.1[e]
Acetone	67-64-1	100[a]	100[b]	500[b]	1,000[c]	2.2	0.05
Benzene	71-43-2	2.9	4.8	44	89	70	0.06
Butylbenzene	104-51-8	100[a]	100[a]	500[b]	1,000[c]	NS	12
Carbon tetrachloride	56-23-5	1.4	2.4	22	44	NS	0.76
Chlorobenzene	108-90-7	100[a]	100[a]	500[b]	1,000[c]	40	1.1
Chloroform	67-66-3	10	49	350	700	12	0.37
Ethylbenzene	100-41-4	30	41	390	780	NS	1
Hexachlorobenzene	118-74-1	0.33[e]	1.2	6	12	NS	3.2
Methyl ethyl ketone	78-93-3	100[a]	100[a]	500[b]	1,000[c]	100[a]	0.12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Methyl tert-butyl ether	1634-04-4	62	100[a]	500[b]	1,000[c]	NS	0.93
Methylene chloride	75-09-2	51	100[a]	500[b]	1,000[c]	12	0.05
n-Propylbenzene	103-65-1	100[a]	100[a]	500[b]	1,000[c]	NS	3.9
sec-Butylbenzene	135-98-8	100[a]	100[a]	500[b]	1,000[c]	NS	11
tert-Butylbenzene	98-06-6	100[a]	100[a]	500[b]	1,000[c]	NS	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3
Toluene	108-88-3	100[a]	100[a]	500[b]	1,000[c]	36	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6
1,3,5- Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02
Xylene (mixed)	1330-20-7	100[a]	100[a]	500[b]	1,000[c]	0.26	1.6

All soil cleanup objectives (SCOs) are in parts per million (ppm).
NS=Not specified. See Technical Support Document (TSD).

Footnotes

[a] The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.

[b] The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

[c] The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

[d] The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

[e] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

[f] For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

[g] This SCO is derived from data on mixed isomers of BHC.

[h] The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

[i] This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

[j] This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.

Appendix 5
Allowable Constituent Levels for Imported Fill or Soil
Subdivision 5.4(e)

Source: This table is derived from soil cleanup objective (SCO) tables in 6 NYCRR 375. Table 375-6.8(a) is the source for unrestricted use and Table 375-6.8(b) is the source for restricted use.

Note: For constituents not included in this table, refer to the contaminant for supplemental soil cleanup objectives (SSCOs) in the Commissioner Policy on *Soil Cleanup Guidance*. If an SSCO is not provided for a constituent, contact the DER PM to determine a site-specific level.

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Metals					
Arsenic	13	16	16	16	13
Barium	350	350	400	400	433
Beryllium	7.2	14	47	47	10
Cadmium	2.5	2.5	4.3	7.5	4
Chromium, Hexavalent[1]	1 [3]	19	19	19	1 [3]
Chromium, Trivalent[1]	30	36	180	1500	41
Copper	50	270	270	270	50
Cyanide	27	27	27	27	NS
Lead	63	400	400	450	63
Manganese	1600	2000	2000	2000	1600
Mercury (total)	0.18	0.73	0.73	0.73	0.18
Nickel	30	130	130	130	30
Selenium	3.9	4	4	4	3.9
Silver	2	8.3	8.3	8.3	2
Zinc	109	2200	2480	2480	109
PCBs/Pesticides					
2,4,5-TP Acid (Silvex)	3.8	3.8	3.8	3.8	NS
4,4'-DDE	0.0033 [3]	1.8	8.9	17	0.0033 [3]
4,4'-DDT	0.0033 [3]	1.7	7.9	47	0.0033 [3]
4,4'-DDD	0.0033 [3]	2.6	13	14	0.0033 [3]
Aldrin	0.005	0.019	0.097	0.19	0.14
Alpha-BHC	0.02	0.02	0.02	0.02	0.04 [4]
Beta-BHC	0.036	0.072	0.09	0.09	0.6
Chlordane (alpha)	0.094	0.91	2.9	2.9	1.3
Delta-BHC	0.04	0.25	0.25	0.25	0.04 [4]
Dibenzofuran	7	14	59	210	NS
Dieldrin	0.005	0.039	0.1	0.1	0.006
Endosulfan I	2.4[2]	4.8	24	102	NS
Endosulfan II	2.4[2]	4.8	24	102	NS
Endosulfan sulfate	2.4[2]	4.8	24	200	NS
Endrin	0.014	0.06	0.06	0.06	0.014
Heptachlor	0.042	0.38	0.38	0.38	0.14
Lindane	0.1	0.1	0.1	0.1	6
Polychlorinated biphenyls	0.1	1	1	1	1

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Semi-volatile Organic Compounds					
Acenaphthene	20	98	98	98	20
Acenaphthylene	100	100	100	107	NS
Anthracene	100	100	100	500	NS
Benzo(a)anthracene	1	1	1	1	NS
Benzo(a)pyrene	1	1	1	1	2.6
Benzo(b)fluoranthene	1	1	1	1.7	NS
Benzo(g,h,i)perylene	100	100	100	500	NS
Benzo(k)fluoranthene	0.8	1	1.7	1.7	NS
Chrysene	1	1	1	1	NS
Dibenz(a,h)anthracene	0.33 [3]	0.33 [3]	0.33 [3]	0.56	NS
Fluoranthene	100	100	100	500	NS
Fluorene	30	100	100	386	30
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	NS
m-Cresol(s)	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	NS
Naphthalene	12	12	12	12	NS
o-Cresol(s)	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	NS
p-Cresol(s)	0.33	0.33	0.33	0.33	NS
Pentachlorophenol	0.8 [3]	0.8 [3]	0.8 [3]	0.8 [3]	0.8 [3]
Phenanthrene	100	100	100	500	NS
Phenol	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	30
Pyrene	100	100	100	500	NS
Volatile Organic Compounds					
1,1,1-Trichloroethane	0.68	0.68	0.68	0.68	NS
1,1-Dichloroethane	0.27	0.27	0.27	0.27	NS
1,1-Dichloroethene	0.33	0.33	0.33	0.33	NS
1,2-Dichlorobenzene	1.1	1.1	1.1	1.1	NS
1,2-Dichloroethane	0.02	0.02	0.02	0.02	10
1,2-Dichloroethene(cis)	0.25	0.25	0.25	0.25	NS
1,2-Dichloroethene(trans)	0.19	0.19	0.19	0.19	NS
1,3-Dichlorobenzene	2.4	2.4	2.4	2.4	NS
1,4-Dichlorobenzene	1.8	1.8	1.8	1.8	20
1,4-Dioxane	0.1 [3]	0.1 [3]	0.1 [3]	0.1 [3]	0.1
Acetone	0.05	0.05	0.05	0.05	2.2
Benzene	0.06	0.06	0.06	0.06	70
Butylbenzene	12	12	12	12	NS
Carbon tetrachloride	0.76	0.76	0.76	0.76	NS
Chlorobenzene	1.1	1.1	1.1	1.1	40
Chloroform	0.37	0.37	0.37	0.37	12
Ethylbenzene	1	1	1	1	NS
Hexachlorobenzene	0.33 [3]	0.33 [3]	1.2	3.2	NS
Methyl ethyl ketone	0.12	0.12	0.12	0.12	100
Methyl tert-butyl ether	0.93	0.93	0.93	0.93	NS
Methylene chloride	0.05	0.05	0.05	0.05	12

Volatile Organic Compounds (continued)					
Propylbenzene-n	3.9	3.9	3.9	3.9	NS
Sec-Butylbenzene	11	11	11	11	NS
Tert-Butylbenzene	5.9	5.9	5.9	5.9	NS
Tetrachloroethene	1.3	1.3	1.3	1.3	2
Toluene	0.7	0.7	0.7	0.7	36
Trichloroethene	0.47	0.47	0.47	0.47	2
Trimethylbenzene-1,2,4	3.6	3.6	3.6	3.6	NS
Trimethylbenzene-1,3,5	8.4	8.4	8.4	8.4	NS
Vinyl chloride	0.02	0.02	0.02	0.02	NS
Xylene (mixed)	0.26	1.6	1.6	1.6	0.26

All concentrations are in parts per million (ppm)
NS = Not Specified

Footnotes:
[1] The SCO for Hexavalent or Trivalent Chromium is considered to be met if the analysis for the total species of this contaminant is below the specific SCO for Hexavalent Chromium.
[2] The SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.
[3] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.
[4] This SCO is derived from data on mixed isomers of BHC.

APPENDIX B

COMMUNITY AIR MONITORING PLAN

May 2021

Community Air Monitoring Plan

Old Troy Municipal Incinerator Site
East Side of Oakwood Avenue
Town of Brunswick
Rensselaer County, New York
Site #C442001

Prepared by:

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C.T. Male Associates Project No: 21.1151

COMMUNITY AIR MONITORING PLAN
OLD TROY MUNICIPAL INCINERATOR SITE (C442001)
EAST SIDE OF OAKWOOD AVENUE
TOWN OF BRUNSWICK, RENSSELAER COUNTY, NY

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ATTACHMENTS

1.0 GENERAL

1.1 Overview

C.T. Male Associates Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C. (C.T. Male) has prepared this Community Air Monitoring Plan (CAMP) for the proposed Remedial Investigation (RI) and Interim Remedial Measures (IRMs) to be conducted at the Old Troy Municipal Incinerator (OTMI) Brownfield Cleanup Program (BCP) Site (the "Site") located along the eastern side of Oakwood Avenue in the Town of Brunswick, Rensselaer County, New York.

This CAMP fulfills the requirements set forth by the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan, dated June 2000 (Attachment A), and the New York State Department of Environmental Conservation (NYSDEC) DER-10 Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites (Attachment B).

The intent of the CAMP 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 RI and IRM work activities. The CAMP is not intended for use in establishing action levels for worker respiratory protection. The CAMP will monitor the air for dust (particulate air monitoring) and volatile organic compound (VOC) vapors (VOC air monitoring) at the upwind and downwind perimeter of the work area(s). The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown.

1.2 Site Description

The Site is located in a rural-residential area within the Town of Brunswick, Rensselaer County, New York. The Site has not been assigned a physical address, but is located along the east side of Oakwood Avenue, approximately 800 feet north of its intersection with Farrell Road. The Site is approximately 25.3 acres in size and constitutes the southern portion of Lot 2.2 of Block 2 of Section 80 of the Rensselaer County Tax Map. Lot 2.2 of the tax map is 39.97 acres in size. See Figure 1: Site Location Map and Figure 1A: Tax Map showing the Site boundaries relative to the larger tax parcel lot.

The Site consists of heavily vegetated vacant land that was formerly used in part as the OTMI landfill. Areas of ponded water are present within eastern, central southern and southwestern portions of the Site's boundaries. A surface drainage is located along the western Site boundary. The blue hatched line on Figure 2: Site Features Map depicts the approximate boundary of the landfill mass within the Site boundaries.

1.3 RI and IRM Activities

RI activities will be completed as per the May 2021 RI Work Plan. IRM activities will be completed as per the May 2021 IRM Work Plan. Detail regarding the RI and IRM field activities are provided in these documents.

Anticipated RI ground intrusive activities include:

-Advancement of test pits to confirm the areal extent of the landfill mass; and

-Advancement of test borings for installation of monitoring wells and soil gas sampling points.

Anticipated IRM ground intrusive activities include:

-Clearing of vegetation;

-Removal and staging of surficial solid wastes;

-Localized grading;

-Localized utility excavation;

-Installation and removal of the decontamination pad; and

-Placement of filter fabric and cover material.

1.4 Potential Air Emissions Related to RI and IRM Activities

Ground intrusive RI and IRM activities (see Section 1.3) conducted at the Site have the potential to generate localized impacts to air quality. Non-intrusive activities that may contribute to air quality include equipment decontamination and vehicular traffic within the Site.

1.5 Air/Odor Emissions and Control Measures

Air emissions control and fugitive dust suppression techniques will be used during the intrusive activities identified in Section 1.3, as necessary, to limit the air/odor emissions from leaving the Site. Air monitoring for the specific purpose of protecting the community from Site activity impacts (and verification thereof) will take place during both ground intrusive and non-intrusive activities.

During intrusive and non-intrusive Site activities, odor and dust control measures will be implemented when necessary. The following dust and odor suppression measures may be used during these activities, depending upon specific circumstances and air monitoring results:

- Apply water on haul roads;
- Wetting equipment and excavation faces;
- Polyethylene sheeting (for covering soil stockpiles);
- Spraying water on buckets during remedial activities;
- Hauling materials in properly tarped or watertight containers;
- Restricting vehicle speeds to 10 mph; and
- Covering excavated areas and material after excavation activity ceases.

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.

Polyethylene sheeting will be used to control nuisance odors and VOC emissions, as needed. Also, dust emissions at the Site may be controlled by spraying water on exposed dry surface soil areas, using silt fences, and by covering soil stockpiles. Odor and dust

control measures will be implemented based on visual or olfactory observations, and the results of continuous airborne particulate and VOC monitoring.

2.0 AIR MONITORING PROCEDURES

2.1 General

Real-time air monitoring will be implemented at the Site for VOCs, and particulate matter less than 10 microns in diameter (PM-10). A Site boundary or work area boundary will be established for the purpose of air monitoring. Daily establishment of upwind and downwind monitoring stations will be determined through visual observation (wind vane, windsock, weather station or similar technique). Monitoring will occur at RI and IRM work areas, as referenced in Section 1.3. Both the airborne particulate and VOC monitoring units will be equipped with telemetry that notifies field personnel and project management in real-time of any exceedances to the established air quality limits, which in turn allows rapid assessment and correction of the situation. Baseline air sampling will take place prior to the beginning of work each day.

2.2 Sampling Location Selection

CAMP sampling activities will be determined daily based on visual observation of the wind direction and location of the workday's activities. The upwind location will be selected daily where both VOC and PM-10 will be monitored and recorded. This upwind location will be established at the start of the workday, each day before the start of work activities. Sampling activities will continue in a downwind direction throughout the day. If wind direction during the workday shifts greater than approximately +/-60 degrees from the original upwind wind vector, new upwind and downwind sampling locations will be established. Any location changes will be documented in the field logs.

Sampling locations may also be moved and reestablished during the work day if work at the Site changes locations.

2.3 VOCs Monitoring

As required by the NYSDOH guidance for community air monitoring during ground intrusive activities, VOCs will be monitored continuously during RI and IRM Site activities, with instrumentation that is equipped with electronic data-logging capabilities. A MiniRAE 3000 (or equivalent) will be used to conduct the real-time VOC monitoring. Detailed information on the MiniRAE 3000 is included in Attachment C. All 15-minute

readings will be recorded, as well as any instantaneous readings taken to facilitate activity decisions.

2.4 Particulate Matter Monitoring

As required by the NYSDOH guidance, real-time PM-10 will be monitored continuously during Site activities using instrumentation equipped with electronic data- logging capabilities. A MIE DataRAM (or equivalent) will be used to conduct the real-time PM-10 monitoring. Detailed information on the MIE DataRAM is provided in Attachment C. All 15-minute readings will be recorded, as well as any instantaneous readings taken to facilitate activity decisions.

Fugitive dust migration will be visually assessed during all work activities, and reasonable dust suppression techniques will be used during Site activities that may generate fugitive dust. These activities and their design controls were discussed previously in Section 1.5 of this plan.

2.5 Action Levels

The action levels provided below are to be used to initiate response actions, if necessary, based on real-time monitoring of PM-10 and VOCs.

2.5.1 Particulate Air Monitoring

Three (3) real-time particulate monitors capable of continuously measuring PM-10 and capable of integrating over a period of 15 minutes (or less) will be utilized. The instruments will be placed inside environmental enclosures at temporary monitoring stations based on the prevailing wind direction each workday, one (1) upwind and two (2) downwind of the designated work areas.

Each particulate monitor will be equipped with a telemetry unit capable of transmitting real-time particulate data to the field representative and project management. The particulate monitoring instruments will be capable of displaying and transmitting the short-term exposure limit (STEL) or 15-minute averaging period, which will be compared to the NYSDOH Generic Community Air Monitoring Plan action levels for particulates, as listed below. The instruments are programmed to alarm at preset action levels. At the

end of each day, the readings for each instrument will be downloaded to a computer and retained for future reference and reporting.

- 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 and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Work may continue with dust suppression techniques provided that the 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.

- If, after implementation of dust suppression techniques, the 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.

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 PM-10 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.

In the event of poor weather such as heavy rain, particulate monitoring will not be performed for protection of instrumentation. These weather conditions would limit the effectiveness of the sensitive monitoring equipment and likely suppress particulate generation. Work activities will be halted and modified if fugitive dust migration is visually observed for a sustained period of time during poor weather conditions.

When extreme wind conditions make dust control ineffective, as a last resort RI and IRM ground intrusive activities may need to be suspended.

2.5.2 Volatile Organic Compound Air Monitoring

C.T. Male will continuously monitor for VOCs at the downwind perimeter of the immediate work areas with a MiniRAE 3000 VOC monitor or equal, using a 11.7 eV lamp. The VOC monitor will be placed in the downwind environmental enclosures containing the particulate monitor. The downwind VOC monitors will be equipped with a telemetry unit capable of transmitting real-time VOC data to the field representative and project manager. The VOC monitoring instrument will be capable of displaying and transmitting the STEL or 15-minute averaging period, which will be compared to the NYSDOH Generic Community Air Monitoring Plan action levels for VOCs, as listed below. The downwind VOC STEL readings will be downloaded to a computer and retained for future reference and reporting.

Upwind VOC STEL concentrations will be measured at the start of the workday, and periodically thereafter, employing a handheld MiniRae 3000 VOC monitor with 11.7 eV lamp to evaluate the Site's background conditions. The upwind VOC STEL readings will be manually recorded for future reference and reporting.

- 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.
- 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.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown. Work activities will then be evaluated to determine

the source of the organic vapors and the engineering controls required to reduce/eliminate the organic vapors.

2.6 Meteorological Monitoring

Wind direction is meteorological information considered relevant for the RI and IRM activities and CAMP. Meteorological monitoring will be conducted periodically at the Site using a windsock, wind vane, or other appropriate equipment. Wind direction will be established at the start of each workday and may be re-established at any time during the workday if a significant shift in wind direction is noted, or Site activities are relocated on Site.

2.7 Instrument Calibration

Calibration of the VOC and PM-10 instrumentation will occur in accordance with each of the equipment manufacturer's calibration and quality assurance requirements. The VOC and PM-10 monitors will be calibrated at least daily, and calibrations will be recorded in the field activity logbook.

3.0 MONITORING SCHEDULE, DATA COLLECTION AND REPORTING

3.1 General

The proposed monitoring schedule and data collection and reporting requirements are discussed below.

3.2 Monitoring Schedule

Real-time VOC and PM-10 monitoring will be performed continuously throughout the RI and IRM ground intrusive activities identified in Section 1.3. VOC monitoring will also be performed during non-intrusive sampling and/or support-type activities. Wind direction will be determined at the start of each day and at any other appropriate time during remedial activities.

3.3 Data Collection and Reporting

Air monitoring data will be collected continuously from VOC and PM-10 monitors during intrusive Site activities by an electronic data-logging system. The data management software will be set up so that instantaneous observed readings would be recorded by the electronic data acquisition system and averaged over 15-minute time periods. The 15-minute readings and instantaneous readings taken to facilitate activity decisions will be recorded and archived for review by NYSDOH and NYSDEC personnel.

FIGURE 1

SITE LOCATION MAP

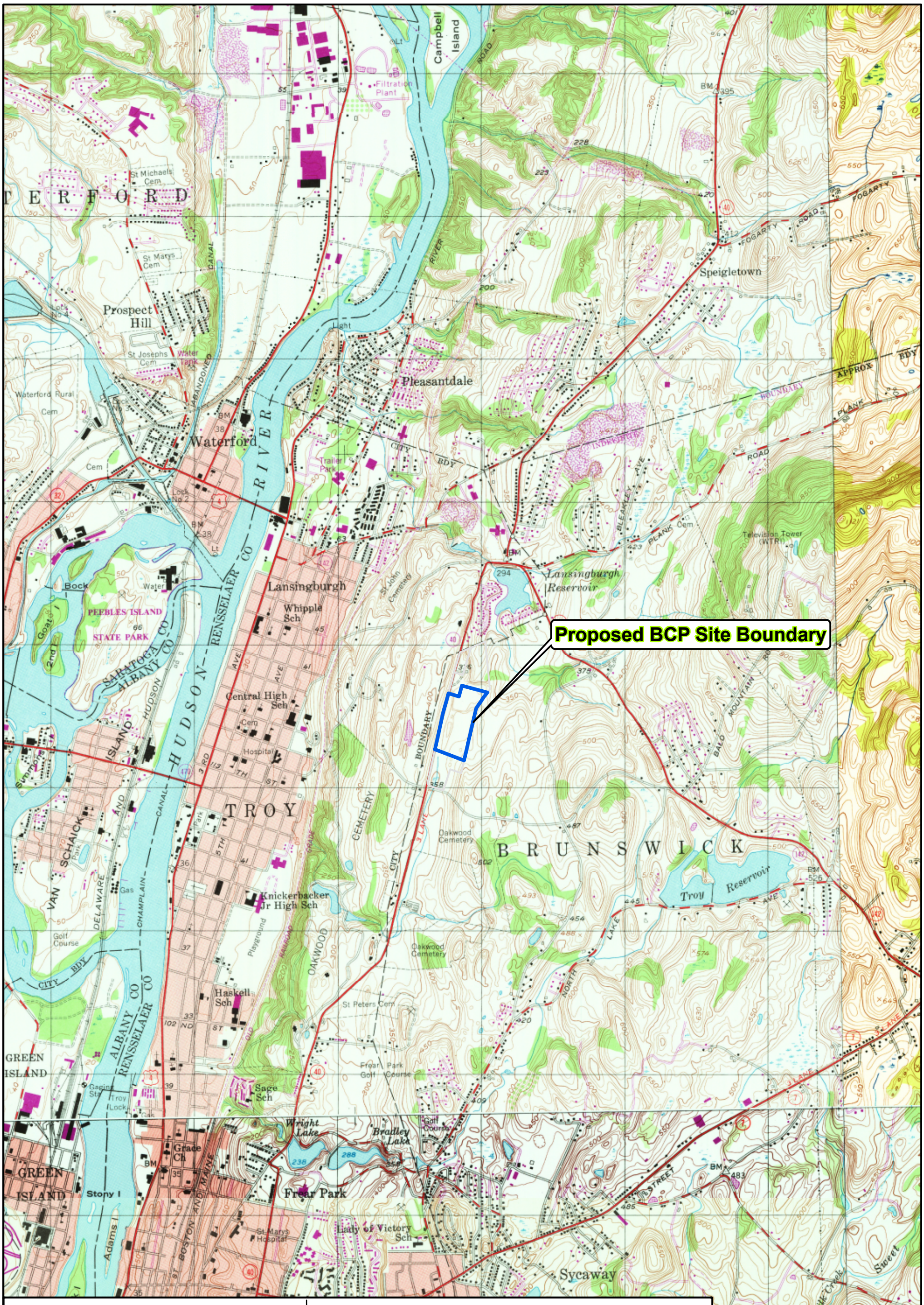

FIGURE 1
Old Troy Municipal Incinerator Site Location

Town of Brunswick — **Rensselaer County, NY**

0 1,000 2,000 4,000 FT

1 inch = 2,000 feet

Map Note: The locations and features depicted on this map are approximate and do not represent a field survey.

Project Number: 20.0611
Data Source: NYSGIS Clearinghouse
Projection: State Plane NAD83 NYE (Feet)
Date: October 29, 2020
File: OldTroyMunicipalIncineratorSite_LocationTopoMap_11x17.mxd
GIS: D Landreville

Legend
Proposed BCP Site Boundary

C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

FIGURE 1A

TAX MAP

REAL PROPERTY MAP

THE USE OF THIS MAP IS FOR REAL PROPERTY TAX ADMINISTRATION PURPOSES ONLY

PREPARED FOR	ORIGINALLY PREPARED BY	ORIGINALLY CONVERTED TO DIGITAL FORMAT BY
RENSSELAER COUNTY LEGISLATURE	COLE – LAYER – TRUMBLE CO. INC. WEILER MAPPING, INC., A SEWALL DIVISION	HORSEHEADS, NEW YORK
TROY, NEW YORK	DAYTON, OHIO	JANUARY, 2003

SPECIAL DISTRICTS

TYPE	SYMBOL	CODE	NAME
FIRE	— F —	FD004 FD006	CTR. BRUNSWICK FIRE SPEIGELTOWN FIRE
LIGHT	— LT —		
SCHOOL	— SCH —	381701	LANSINGBURG C.S.D.
SEWER	— S —	SD001 SD024	COUNTY SEWER DISTRICT NO. 1 BRUNSWICK SEWER DISTRICT NO. 10
WATER	— W —	WD072	BRUNSWICK WATER DISTRICT NO. 16

LEGEND

NAD83	PROPERTY LINE	AREA (FROM DEED) 1.50Ac	INTERSTATE HIGHWAY 90
NAD27	WATER	AREA (CALCULATED) 1.50Ac(c)	U.S. HIGHWAY 9
STATE OR COUNTY LINE	LAND HOOK	DIMENSION (FROM DEED) 16.5	NEW YORK STATE HIGHWAY 2
CITY,TOWN OR VILLAGE LINE	PATENT OR REALTY LOT LINE	DIMENSION (SCALED) 66(s)	COUNTY HIGHWAY 108
ROAD OR RAILROAD R/W	PATENT OR REALTY LOT NO. 36 OR (1)	COORDINATE–LOCATOR NO.(E800,000–N8000,000)	BLOCK LIMIT LINE
EASEMENT R/W LINE	SECTION–BLOCK–LOT–NO. 001.00– 1 –100		

DATE OF MAP: 08-24-76

DATE OF REVISION: 12-19-19

SCALE: 1"=400'

INDEX TO ADJOINING MAP SECTIONS

		071 00
	080 00	081 00
	090 00	091 00

FIGURE 1A
TOWN OF BRUNSWICK

RENSSELAER COUNTY, NEW YORK

E 709,000–N 1,433,000 MIDDLE COORDINATE LOCATOR NUMBER

NAD 83 NY STATE PLANE COORDINATE SYSTEM, EAST ZONE, US FEET

080.00 SECTION NUMBER

FIGURE 2

SITE FEATURES MAP

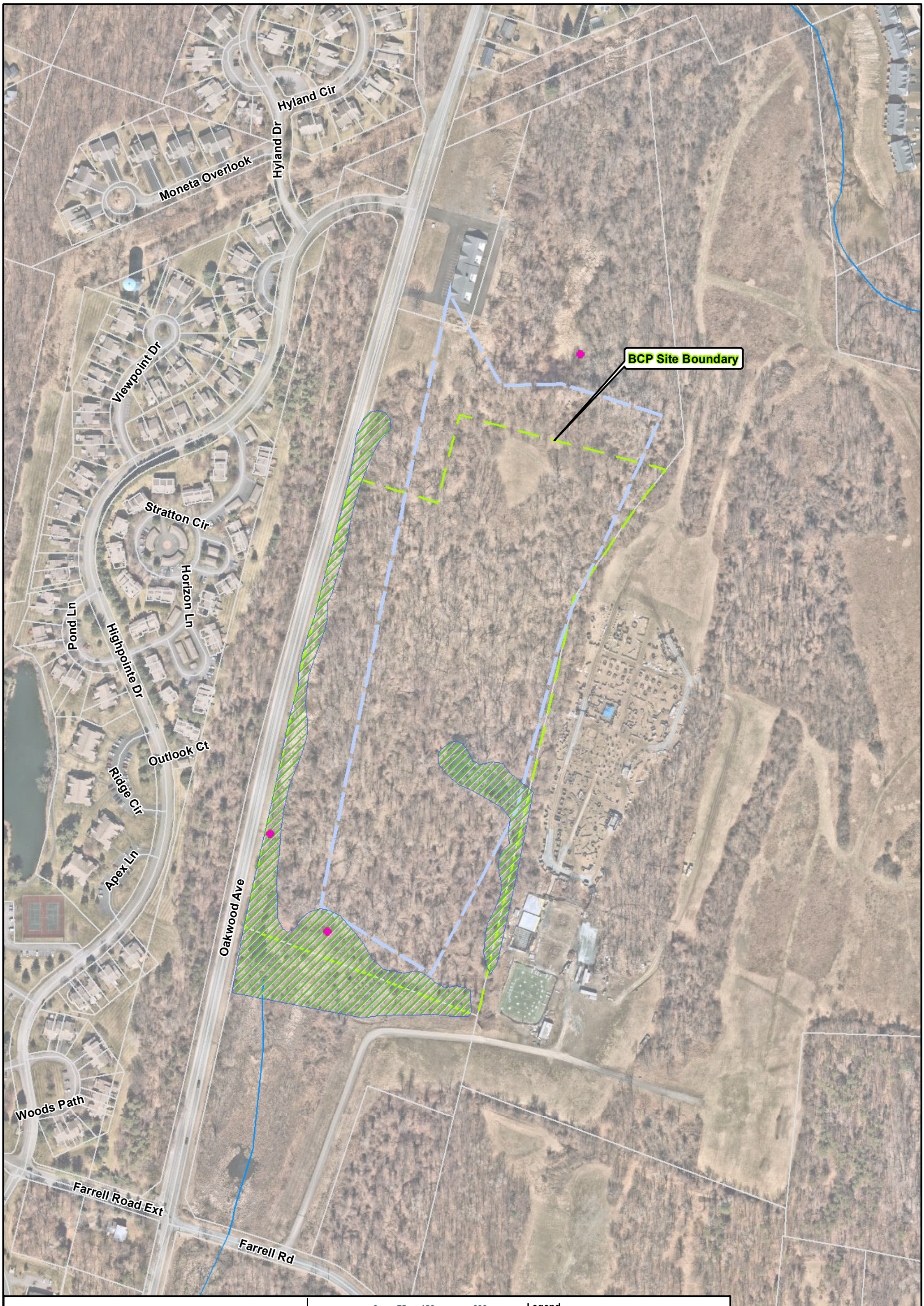

Figure 2: Site Features Map
Old Troy Municipal Incinerator Site

Town of Brunswick — **Rensselaer County, NY**

C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

N W E S

0 75 150 300 FT

1 inch = 250 feet

Map Note: The locations and features depicted on this map are approximate and do not represent a field survey.

Project Number: 20.0611
Data Source: NYSGIS Clearinghouse
Projection: State Plane NAD83 NYE (Feet)
Date: April 21, 2021
File: OTMI_SiteFeaturesMapForAchtyl_11x17.mxd
GIS: D Landreville

Legend
- Leachate Seep Locations
- Delineated Wetlands
- Streams
- Approximate Landfill Boundary
- BCP Site Boundary
- Tax Parcels
- Roads

ATTACHMENT A

NYSDOH GENERIC COMMUNITY ACTION MONITORING PLAN

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

ATTACHMENT B

NYSDEC DER-10, FUGITIVE DUST SUPRESSION and PARTICULATE MONITORING PROGRAMS at INACTIVE HAZARDOUS WASTE SITES

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.

ATTACHMENT C

MONITORING EQUIPMENT SPECIFICATIONS

MiniRAE 3000

Portable Handheld VOC Monitor

The MiniRAE 3000 is the most advanced handheld volatile organic compound (VOC) monitor on the market. Its photoionization detector's (PID) extended range of **0 to 15,000 ppm** makes it an ideal instrument for applications from industrial hygiene to leak detection and HazMat.

The **RF modem allows real-time data transmissions** with a base controller located up to 500 feet away from the MiniRAE 3000 (or two miles with optional RAELink3 portable modem). A personal computer can be used as the base station for a MiniRAE 3000 system. The standard ProRAE Remote software is capable of monitoring the input of up to 64 remotely located monitors, including MiniRAE 3000, AreaRAE, etc.

Wireless

AutoRAE Compatible

Key Features

- **Proven PID technology**
  The patented sensor provides the following unique features:
  - 3-second response time
  - Extended range up to 15,000 ppm with improved linearity
  - Humidity compensation with integral humidity and temperature sensors
- **Real-time wireless** data transmission with built-in RF modem or Bluetooth
- **Designed for simple service** Easy access to lamp and sensor in seconds without tools
- **Big graphic display** for easy overview of gas type, Correction Factor and concentration
- **Field-interchangeable battery pack** replaced in seconds without tools
- **Integrated flashlight** for better view in dark conditions
- **User-friendly screens, including dataplot chart view**
- **Integrated RAE Systems Correction Factors list for more than 200 compounds** to measure more chemicals than any other PID
- **Multi-language support** with 12 languages encoded
- **Rugged housing** withstands use in harsh environments
  - IP67 waterproof design for easy cleaning and decontamination in water
  - Strong protective removable rubber boot

Additional Advantages

- View real-time sensor data and alarm status at headquarters or command center
- Automatic lamp type recognition
- Duty-cycling™ lamp and sensor auto-cleaning technology
- Tough, flexible inlet Flexi-Probe™
- 3 large keys operable with 3 layers of gloves
- Strong, built-in sample pump draws up to 100 feet (30m) horizontally or vertically
- Loud, 95dB audible alarm
- Bright red flashing visual alarm
- Interchangeable drop-In lithium-ion and alkaline battery packs
- Charging cradle doubles as an external battery charger
- Compatible with AutoRAE™ calibration station
- ProRAE Remote software simultaneously controls and displays readings for up to 64 remote detectors
- License-free, ISM band RF transmission with communication range up to 500 feet (2 miles with optional RAELink3 modem)
- Optional RAELink3 modem provides GPS capability to track and display readings from remote detectors and provide up to 2 miles' long-distance transmission
- Datalogging with up to 6 months of data at one-minute intervals
- 3-year 10.6eV lamp warranty

ver1_05.07

MiniRAE 3000

Specifications*

Detector Specifications

Size	10" L x 3.0" W x 2.5" H (25.5 cm x 7.6 cm x 6.4 cm)
Weight	26 oz (738 g)
Sensors	Photoionization sensor with standard 10.6 eV or optional 9.8 eV or 11.7 eV lamps
Battery	• Rechargeable, external field-replaceable Lithium-Ion battery pack • Alkaline battery adapter
Operating Hours	16 hours of operation (12 hours with alkaline battery)
Display Graphic	4 lines, 28 x 43 mm, with LED backlight for enhanced display readability
Keypad	1 operation and 2 programming keys, 1 flashlight on/off
Direct Readout	Instantaneous reading • VOCs as ppm by volume • High values • STEL and TWA • Battery and shutdown voltage • Date, time, temperature
Alarms	95 dB (at 30 cm) buzzer and flashing red LED to indicate exceeded preset limits • High: 3 beeps and flashes per second • Low: 2 beeps and flashes per second • STEL and TWA: 1 beep and flash per second • Alarms latching with manual override or automatic reset • Additional diagnostic alarm and display message for low battery and pump stall
EMI/RFI	Highly resistant to EMI/RFI Compliant with EMC Directive 89/336/EEC
IP Rating	• IP67 unit off and without flexible probe • IP65 unit running
Datalogging	Standard 6 months at one-minute intervals
Calibration	Two-point or three-point calibration for zero and span. Calibration memory for 8 calibration gases, alarm limits, span values and calibration dates
Sampling Pump	• Internal, integrated flow rate at 400 cc/mn • Sample from 100' (30m) horizontally and vertically
Low Flow Alarm	• Auto pump shutoff at low-flow condition
Communication	• Download data and upload instrument set-up from PC through charging cradle or optional Bluetooth™ • Wireless data transmission through built-in RF modem
Frequency	902 to 928 MHz (license-free), 2.400 to 2.4835 GHz (license-free), 433 MHz, 869 MHz
RF Range	Up to 500' (900 MHz, 433 Mhz, 869 Mhz), extendable with RAELink3 Repeater to 2 miles
Hazard Area Approval	• **US and Canada:** UL, cUL, Classified as Intrinsically Safe for use in Class I, Division I Groups A, B, C, D • **Europe:** ATEX II 1G EEx ia IIC T4 (pending) • **IECEx:** II 1G EEx ia IIC T4 (pending)
Temperature	-4° to 113° F (-20° to 50° C)
Humidity	0% to 95% relative humidity (non-condensing)
Attachments	Durable bright yellow rubber boot with belt clip
Warranty	Lifetime on non-consumable components (per RAE Systems Standard Warranty), 3-year warranty for 10.6 eV lamp, 1 year for pump and battery

*Specifications are subject to change

Sensor Specifications

Gas Monitor	Range	Resolution	Response Time T90
VOCs	0 to 999.9 ppm 1000 to 15,000 ppm	0.1 ppm 1 ppm	< 3 s < 3 s

Monitor only includes:

- MiniRAE 3000 Monitor, Model PGM-7320
- Wireless communication module built in, as specified
- Datalogging with ProRAE Studio Package for Windows™ 95, 98, 2000, NT, ME & XP
- Charging/download adapter
- RAE UV lamp, as specified
- Flex-I-Probe™
- External filter
- Rubber boot with belt clip and straps
- Alkaline battery adapter
- Lamp-cleaning kit
- Tool kit
- Lithium-ion (Li-ion) battery with universal AC/DC charger and international plug kit
- Operation CD-ROM
- Operation & Maintenance manual
- Soft leather case

Monitor with accessories kit adds:

- Hard transport case with pre-cut foam padding
- Charging/download cradle
- 5 Porous metal filters and O-rings
- Organic vapor zeroing kit
- Gas outlet port adapter and tubing

Optional calibration kit adds:

- 100 ppm isobutylene calibration gas, 34L
- Calibration regulator and flow controller

Optional Guaranteed Cost of Ownership Program:

- 4-year repair and replacement guarantee
- Annual maintenance service

DISTRIBUTED BY:

ver1_05.07

RAE Systems Inc.
3775 North First Street
San Jose, CA 95134 USA
raesales@raesystems.com

USA/Canada 1-877-723-2878
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Middle East/Australia 971 50 429 1385
China 8610 58858788
Asia +852 2669 0828

www.raesystems.com

DataRAM 4™ - Model DR-4000

Portable particle sizing aerosol monitor/data logger Dual Wavelength Nephelometer

Expandable to a complete characterization system

- Aerodynamic particle size separators measure specific size groups such as the thoracic, respirable, PM10, PM2.5, and PM1.0 fractions.
- An omnidirectional sampling inlet and an in-line mist and fog elimination heater are available for ambient air monitoring.
- An isokinetic sampling probe/nozzle kit enables duct / stack monitoring.

Real-time airborne particulate concentration and size measurements

The DataRAM 4™ (Model DR-4000) continuously monitors the real-time concentration and median particle size of airborne dust, smoke, mist, and fumes. In addition, air temperature and humidity are displayed. With appropriate particle discriminators, it provides measurements correlated with PM10, PM2.5, PM1.0, and respirable fractions. It's patented two-wavelength particle detection system provides the volume median particle diameter of the sampled aerosol, over a concentration range up to 400 mg/m^3. Unlike typical particle counting devices, the DR-4000 is totally immune to particle coincidence errors, even at the highest concentrations. Volume median particle sizes down to 0.05 µm can be measured by this unique spectral nephelometric technique.

Monitors mass concentrations of fine particulate (PM 2.5)

The DR-4000 monitors the concentrations of fine particulates in ambient air by a combination of aerodynamic size preselection, two-wavelength nephelometry, and concurrent sensing/ correction for relative humidity. This patented technique provides a continuous measurement of PM2.5, independent of particle size and moisture - *without heating, diffusion drying, or denuding the sample stream*.

Measure scattering, angstrom coefficients, and visual range

DR-4000 measures the scattering coefficient at two wavelengths (in units of inverse megameters) and computes the coefficient at the reference wavelength of 550 nanometers, as well as the angstrom exponent (a measure of atmospheric fine particle size). Based on the 550 nm scattering coefficient, the instrument then calculates the visual range in kilometers.

Self-calibrating, internal filter is designed for use in the field

Designed for fast, easy field calibration, a 37 mm membrane filter (provided) can be used in place of the zeroing HEPA filter cartridge for gravimetric calibration and/or chemical analysis of collected particulates. The calibration process takes only seconds to perform, and unlike similar instruments, field calibration does not require additional equipment. Only single point gravimetric calibration is needed.

Complete digital communications

The DR-4000 has both RS232 and RS485 data ports for two-way digital communications. Special Windows™ compatible software (provided with the instrument) facilitates data transfer either in real-time or from the logged memory. All operational and programming functions can be controlled from a remote location through the RS485 communications port. Sampling start and stop as well as data transfer can be controlled via modem or other digital transmission paths.

DataRAM 4™ - Model DR-4000

Portable particle sizing aerosol monitor/data logger
Dual Wavelength Nephelometer

Specifications

Concentration measurement range (auto-ranging):
Referred to gravimetric reference calibration (NIST traceable)
with SAE Fine test dust (mmd = 2 to 3 µm, σ_g = 2.5, as aerosolized)
0.0001 to 400 mg/m^3

Precision/repeatability (2-sigma):
At 25˚C
For single-wavelength concentration sensing
± 1% of reading or ± 0.001 mg/m^3, whichever is greater (1-second averaging)
± 0.3% of reading or ± 0.0003 mg/m^3, whichever is greater (10-second averaging)

Accuracy:
Referred to gravimetric reference calibration (NIST traceable)
with SAE Fine test dust (mmd = 2 to 3 µm, σ_g = 2.5, as aerosolized)
± 2% of reading ± precision

Resolution:
0.1% of reading or 0.0001 mg/m^3, whichever is greater

Scattering coefficient range:
10^{-7} to 0.4 m^{-1} (resolution: 3 significant digits, maximum)

Visual range (@λ= 550 nm):
0.001 to 337 km (resolution: 3 significant digits, maximum)

Ångström coefficient measurement range:
0.0 to 4.0

Particle sizing range (log-normal, σ_g = 2.0, m = 1.50):
0.05 to 4 µm

Particle size range of maximum response (concentration measurements):
0.08 to 10 µm

Temperature measurement range:
5˚F to 140˚F (-15˚C to 60˚C); accuracy: 0.05˚C

Relative humidity measurement range (@ 25˚F):
0 to 100% (accuracy: 2%, noncondensing)

Sampling flow rate range (user selectable):
1.0 to 3.0 liters/min.
(accuracy: 0.05 liters/min., adjustability: 0.1 liters/min.)

Measurement/display integration time range *(user selectable)*:
1 to 60 sec. (selectable in 1-sec. steps)

Measurement/display update frequency:
1 per sec.

HEPA filter cartridge replacement frequency (typical):
Less than 1 per 5 yrs (@ ‹ 1 mg/m^3)

Alarm level range *(user selectable)*:
Selectable over entire measurement range

Data logging averaging periods *(user selectable)*:
1 sec. to 24 hrs (selectable in 1-sec. increments)

Data logging memory capacity:
50,000 data points in up to 99 tags (data sets)

Programmable zeroing periods *(user selectable)*:
1 to 168 hrs (selectable in 1-hr increments; if enabled, logging period must be more than 10 min.)

Elapsed time readout range:
1 sec. to 100,000 hrs (over 11 yrs), in sec., min., and hrs

Digital communications:
RS232/RS485: full duplex, 9600 baud, software-controlled, device-filtered

Computer requirements:
IBM-compatible PC, Windows™ 95 or higher; 8 MB memory or more

Analog outputs *(user selectable)*:
0 to 5 V and 4 to 20 mA, with selectable full scale ranges between 0.1 and 400 mg/m^3

Power:
- Internal battery: rechargeable, sealed lead-acid, 6.5 Ahr, 6 V, 20-hr run time between charges (typical)
- AC line: universal voltage charger/power supply (included), 100-250 V, 50-60 Hz (CE marked)
- Optional solar power system (Model DR-SOL)

Alarm outputs:
- Alarm switch: 30 V (off, open), 2.5 A (on, closed)
- Alarm signal: 0 V (off), 5 V (on) (1 mA maximum load current)
- Audio alarm (back panel): More than 65 dB @ 1 m

Operating environment:
14˚F to 122˚F (-10˚C to 50˚C); 10 to 95% RH, noncondensing

Storage environment:
- 4˚F to 158˚F (-20˚C to 70˚C)

Dimensions:
5.28 in. (134 mm) H x 7.25 in. (184 mm) W x 13.63 in. (346 mm) D

Weight:
11.7 lbs (5.3 kg)

Safety approvals and certifications:
The DataRAM 4 complies with US FCC rules (Part 15) and has received CE certification.

Standard accessories included:
- Universal voltage battery charger/power supply
- Standard HEPA filter cartridge
- Analytical filter holder
- PC communications software disk
- Digital output cable
- Carrying case and instruction manual

500 Technology Court Smyrna, GA 30082
800-241-6898 (toll free in USA) ■ 770-319-9999 (outside USA) ■ 770-319-0336 (fax)
www.thermoandersen.com ■ sales@thermoandersen.com

Specifications

Concentration measurement range (auto-ranging):[1]
0.0001 to 400 mg/m^3

Precision/repeatability (2-sigma):[2,3]
± 1% of reading or ±0.001 mg/m^3, whichever is greater (1-second averaging)
± 0.3% of reading or ± 0.0003 mg/m^3, whichever is greater (10-second averaging)

Accuracy:[1]
± 2% of reading ± precision

Resolution:
0.1% of reading or 0.0001 mg/m^3, whichever is greater

Scattering coefficient range:
10^{-7} to 0.4 m^{-1} (resolution: 3 significant digits, maximum)

Visual range (@λ=550 nm):
0.001 to 337 km (resolution: 3 significant digits, maximum)

Ångström coefficient measurement range:
0.0 to 4.0

Particle sizing range (log-normal, σ_g = 2.0, m = 1.50):
0.05 to 10 µm

Particle size range of maximum response (concentration measurements):
0.08 to 10 µm

Temperature measurement range:
-15˚ to 60˚C (accuracy: 0.05˚C)

Relative humidity measurement range (@ 25˚C):
0 to 100% (accuracy: 2%, noncondensing)

Sampling flow rate range:[4]
1.0 to 3.0 liters/minute
(accuracy: 0.05 liters/minute, adjustability: 0.1 liters/minute)

Measurement/display integration time range:[4]
1 to 60 seconds (selectable in 1-second steps)

Measurement/display update frequency:
1 per second

HEPA filter cartridge replacement frequency (typical):
Less than 1 per 5 years (@ < 1 mg/m^3)

Alarm level range:[4]
Selectable over entire measurement range

Data logging averaging periods:[4]
1 second to 24 hours (selectable in 1-second increments)

Data logging memory capacity:
50,000 data points in up to 99 tags (data groups)

Programmable zeroing periods:[4]
1 to 168 hours (selectable in 1-hour increments;
if enabled, logging period must be more than 10 minutes)

Elapsed time readout range:
1 second to 100,000 hours (over 11 years),
in seconds, minutes, and hours

DR4 2.5M / 5M / 75M / 10M 9 / 00 Printed in USA

Digital communications:
RS232/RS485: full duplex, 4800 baud, software-controlled, device-filtered

Computer requirements:
IBM-compatible PC, 486 or higher; Windows™ 95 or higher; 8 MB memory or more

Analog outputs:[4]
0 to 5 V and 4 to 20 mA, with selectable full scale ranges between 0.1 and 400 mg/m^3

Power:
- Internal battery: rechargeable, sealed lead-acid, 6.5 Ahr, 6 V, 20-hour run time between charges (typical)
- AC line: universal voltage charger/power supply (included), 100-250 V, 50-60 Hz (CE marked)
- Optional solar power system (Model DR-SOL)

Alarm outputs:
- Alarm switch: 30 V (off, open), 2.5 A (on, closed)
- Alarm signal: 0 V (off), 5 V (on) (1 mA maximum load current)
- Audio alarm (back panel): More than 65 dB @ 1 m

Operating environment:
-10˚ to 50˚C (14˚ to 122˚F); 10 to 95% RH, noncondensing

Storage environment:
-20˚ to 70˚C (-4˚ to 158˚F)

Dimensions:
134 mm (5.28 in) H x 184 mm (7.25 in) W x 346 mm (13.63 in) D

Weight:
5.3 kg (11.7 lbs)

Safety approvals and certifications:
The DataRAM 4 complies with US FCC rules (Part 15) and has received CE certification.

Standard accessories included:
- Universal voltage battery charger/power supply
- Standard HEPA filter cartridge
- Analytical filter holder
- PC communications software disk
- Digital output cable
- Carrying case and instruction manual

[1] Referred to gravimetric reference calibration (NIST traceable) with SAE Fine test dust (mmd = 2 to 3 µm, σ_g = 2.5, as aerosolized)
[2] At 25˚C
[3] For single-wavelength concentration sensing
[4] User selectable

Monitoring Instruments for the Environment, Inc.
7 Oak Park ■ Bedford, Massachusetts 01730
Toll-Free: 1-888-643-4968 ■ TEL: (781) 275-1919
FAX: (781) 275-2121 ■ www.mieinc.com

MODEL DR-4000
Dual Wavelength Nephelometer

Ambient Air Monitoring

$PM_{2.5}$ Monitoring

Remediation Site Perimeter Monitoring/Alarming

Real-Time Fine Particle Size Determination

Indoor Air Quality Monitoring

Workplace and Plant Monitoring

Source Monitoring

Atmospheric Scattering and Visibility Monitoring

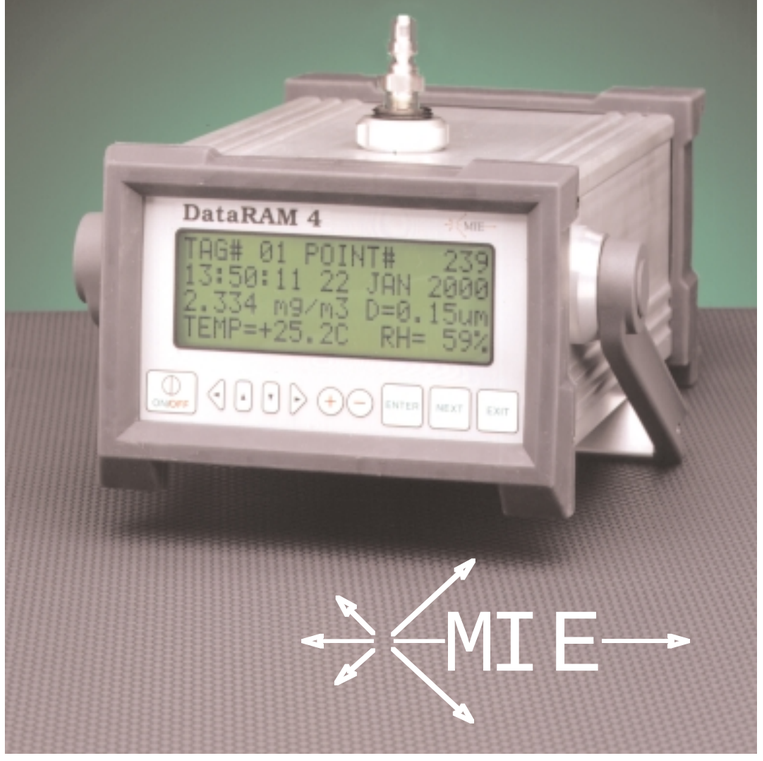
Measurement of Ångström Coefficient

Mobile Monitoring

Toxicology and Aerosol Research

DataRAM 4™

Portable Particle Sizing Aerosol Monitor/Data Logger



Real-Time Particulate Monitoring and Particle Size Selective Measurements

Measures Airborne Particulate Concentrations and Size in Real-Time

The DataRAM 4™ provides direct and continuously updated readouts of concentrations of airborne dust, smoke, mist, and fumes as well as the median particle size. In addition, both air temperature and humidity are displayed. All data can be logged in the integral, large-capacity, non-volatile memory. Up to 50,000 data blocks can be stored in up to 99 tagged groups.

An on-board audible alarm as well as switched and active alarm outputs are triggered whenever concentrations exceed a user-selected level.

With appropriate aerodynamic particle discriminators, the DataRAM 4 provides measurements correlated with PM_{10}, $PM_{2.5}$, $PM_{1.0}$, and respirable fractions.

Determines Particle Median Size Regardless of Concentration

DataRAM 4's patented two-wavelength particle detection system provides the volume median particle diameter of the sampled aerosol, over the remarkably wide concentration range of 1 microgram per cubic meter to 400 milligrams per cubic meter.

Unlike typical particle counting devices, the DataRAM 4 is totally immune to particle coincidence errors, even at the highest concentrations. Volume median particle sizes down to 0.05 µm can be measured by this unique spectral nephelometric technique.

Monitors Mass Concentrations of Fine Particulates ($PM_{2.5}$)

The DataRAM 4 monitors in real-time the concentrations of fine particulates in ambient air by a combination of aerodynamic size preselection, two-wavelength nephelometry, and concurrent sensing/correction for relative humidity. This patented technique provides a continuous measurement of $PM_{2.5}$, independent of particle size and moisture, without altering the sample stream (i.e., without heating, diffusion drying, denuding, etc.)

DataRAM 4 with Cyclone Precollector for respirable particle measurements

Special software (Windows™ compatible) provided with the instrument allows data transfer either in real-time or from the DataRAM 4's logging memory for tabular and/or graphic computer presentation. All operational and programming functions of the DataRAM 4 can be controlled from a remote location through the RS485 communications port. Sampling start and stop as well as data transfer can be controlled via modem or other digital transmission paths.

Analog Signal and Alarm Outputs

For added versatility, the DataRAM 4 provides two separate analog signal outputs, updated every second: a voltage output (0-5 V) and a current output (4-20 mA), both programmable over the instrument's full measurement range Two alarm outputs (and an audible horn) are also included: voltage step (0 to 30 VDC) and switching output (2.5 A maximum). The alarm level is also user programmable over the entire measurement range of the instrument.

Measures Scattering and Ångström Coefficients, and Visual Range

In addition to measuring the mass concentration of airborne particulates, the DataRAM 4 measures the scattering coefficient at two wavelengths (in units of inverse megameters) and computes the coefficient at the reference wavelength of 550 nanometers, as well as the Ångström exponent (a measure of atmospheric fine particle size). Based on the 550 nm scattering coefficient, the instrument then calculates the visual range (in kilometers).

Complete Digital Communications

The DataRAM 4 has both RS232 and RS485 data ports for two-way digital communications with personal computers.

Detailed Diagnostic Information

The DataRAM 4 furnishes complete diagnostic data on the functional condition of all its critical elements. Examples include: condition of each of the two sensing sources, optical background level, scattering detector condition, sampling air flow control, internal battery charge status, charging current, etc. Any deviation from normal conditions is flagged on screen.

DataRAM 4 with Metal Cyclone for particle size separation

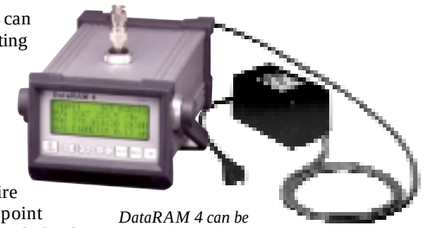
Self-Purging, Automatic Zeroing, and Clean Air Protection of Optics

The DataRAM 4's field-proven flow configuration includes a large-capacity HEPA filter cartridge directly downstream of the photometric sensing stage. Typically replaced every two years, this filter provides particle-free air that is partially recirculated over all critical optical surfaces to ensure their cleanliness.

For either manual or automatic zeroing, an electronically controlled solenoid valve diverts the entire filtered air stream through the optical sensing chamber to achieve "zero" air without the need for an external filter.

Self-Calibrating Internal Filter

A 37-mm membrane filter (for which a special holder/adapter is provided) can be used in place of the zeroing HEPA filter cartridge for gravimetric calibration and/or chemical analysis of collected particulates. The DataRAM 4 can be easily calibrated by readjusting the calibration constant to agree with gravimetric measurements obtained from the on-board filter. Because the photometric response of the instrument is exactly linear over its entire operating range, only single point gravimetric calibration is needed. The second point of the straight response line is the zero concentration obtained by self-purging.



DataRAM 4 can be powered by a rechargeable internal battery or an external power source

Large Character Screen, Menu-Driven Displays, and Scrolling of Logged Data

A large (48-cm^2 active area) LCD screen with 4 lines of alphanumeric text provides highly visible readouts. The screen has automatic backlighting whenever the DataRAM 4 is powered from the AC line current (through its power supply/charger). The instrument provides users with a variety of self-explanatory informational screens. The main measurement screen, for example, displays real-time and date, mass concentration, time-averaged concentration from the start of the run, and elapsed run time. Logged data can be displayed/scrolled during or after a measurement run, and transferred to a PC.

Several Power Options

The DataRAM 4's large-capacity rechargeable battery (long-lived, "memory"-free) provides noninterruptible power to the unit. A charger/power supply is provided for continuous long-term operation. For portable monitoring, the instrument is designed to run without external power for 20 hours. An optional solar power system is available for remote installations.

Expandable To A Complete Particulates Characterization System

Available accessories extend the capabilities of the DataRAM 4 for a wide range of monitoring/particle sizing applications. Aerodynamic particle size separators (cyclones and jet-to-plate impactors) measure specific size groups such as the thoracic, respirable, PM_{10}, $PM_{2.5}$, and $PM_{1.0}$ fractions. An omni-directional sampling inlet and an in-line heater (for mist/fog elimination) are available for ambient air monitoring. An isokinetic sampling probe/nozzle kit enables duct/stack monitoring.

Additional accessories will be available for the DataRAM 4 in the near future, providing a complete systems capability with unparalleled performance flexibility. These accessories/capabilities will include: a patented turntable aerodynamic particle size separator for aerodynamic particle size distribution analysis, and a condensation/nucleation module for ultrafine particle monitoring.

DataRAM 4 with ambient monitoring accessories

APPENDIX C

SITE SPECIFIC HEALTH AND SAFETY PLAN

May 2021

Site Specific Health & Safety Plan

Old Troy Municipal Incinerator Site
East Side of Oakwood Avenue
Town of Brunswick
Rensselaer County, New York
Site #C442001

Prepared by:

C.T. MALE ASSOCIATES
50 Century Hill Drive
Latham, New York 12110
(518) 786-7400
FAX (518) 786-7299

C.T. Male Associates Project No: 21.1151

SITE SPECIFIC HEALTH & SAFETY PLAN
OLD TROY MUNICIPAL INCINERATOR SITE (C442001)
EAST SIDE OF OAKWOOD AVENUE
TOWN OF BRUNSWICK, RENSSELAER COUNTY, NY

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1.0 GENERAL

1.1 Overview

This Site-Specific Health and Safety Plan (HASP) has been prepared for use during implementation of a Remedial Investigation (RI) and Interim Remedial Measures (IRM) within the proposed Brownfield Cleanup Program (BCP) boundaries at the Old Troy Municipal Incinerator (OTMI) Site (the "Site") located along the eastern side of Oakwood Avenue in the Town of Brunswick, Rensselaer County, New York (see Figure 1: Site Location Map).

Site specific training may be required in addition to the procedures presented within this plan including health and safety, emergency communications and procedures, and monitoring.

A designated Office Health and Safety Officer (OHSO) will be responsible for implementing CT Male's health and safety policies and to ensure field work is in compliance with CT Male policies. A designated Site Health and Safety Officer (SHSO) will be responsible for implementing this HASP during the completion of the RI and IRM field work. All persons or parties who enter the work area (support zone, decontamination zone or exclusion zone) must review, sign and comply with this HASP. A partial list of individuals authorized to enter the exclusion zone at the Site is presented in Section 13.0 of this HASP. Others may be added to the list as needed. A copy of this HASP will be maintained at the Site throughout the duration of the project. A complete description of the RI and IRM work is presented in the RI and IRM Work Plans. A brief description of the proposed scope of work is outlined below:

<u>Remedial Investigation:</u>

- Existing ground surface assessment survey;
- Collection of surface and shallow soil samples across the Site for subjective field evidence of contamination (i.e., scanning the soils for organic vapors with a photoionization detector [PID] and organoleptic [sight and smell] perception) and laboratory analyses;
- Collection of surface water and sediment samples for laboratory analyses;
- Advancement of test pits along the reported perimeter of the landfill mass to confirm the horizontal extent of the landfill mass and to characterize subsurface conditions;
- Advancement of test borings in the overburden outside of the landfill mass for installation of overburden monitoring wells and soil gas sampling points, and to characterize subsurface conditions;

- Collection of groundwater samples for laboratory analyses from RI-installed overburden monitoring wells and existing interface and bedrock monitoring wells;
- Collection of soil gas samples for laboratory analyses;
- Part 1 of a Fish and Wildlife Resources Impact Assessment (FWRIA);
- Wetland delineation;
- Off-site potable water well survey;
- Horizontal and vertical survey of all sampling points;
- Management of investigation derived wastes (IDW); and
- Other unforeseen environmental conditions which may be encountered during the RI work.

Interim Remedial Measures

- Site Clearing and consolidation of surface waste materials;
- Installation of security fencing;
- Construction of access road;
- Installation of utilities;
- Placement of demarcation fabric and one-foot of cover material; and
- Placement of solar array concrete ballasts.

1.2 Contact Names & Numbers

For this project, the following project contacts have been assigned.

SITE CONTACT:

Lluis Torrent
Atlas Renewables LLC
7 Stone Clover Drive
Saratoga Springs, NY 12866
torrent@caero.com
Phone: +44 203 29 03 650

CONSULTANT CONTACTS:

CONSULTING ENGINEER:	C.T. Male Associates 50 Century Hill Drive Latham, New York 12110	518.786.7400 (O)
	Daniel P. Reilly, P.E., Project Principal	518.786.7625 (O) 518.928.9792 (C)
	Kirk Moline, P.G., Project Manager	518.786.7502 (O) 518.265.1708 (C)
	Nancy Garry, P.E., CSP	518.786.7541 (O)
	Office Health & Safety Officer	518.320.5783 (C)
	Jonathon Dippert, P.G. Site Health & Safety Officer (HSO)	518.786.7563 (O) 518.469.1183 (C)

EMERGENCY PHONE NUMBERS:

PERSONAL INJURY	Emergency	911
OR EMERGENCY:	Samaritan Hospital -St. Mary Campus 1300 Massachusetts Avenue Troy, New York 12180 (approx. 7 minutes)	518.268.5000
FIRE DEPARTMENT:	Emergency Speigletown Volunteer Fire Department 146 Speigletown Road Troy, New York 12182	911 518.235.5431
POLICE:	Emergency Rensselaer County Sheriff Public Safety Facility 4000 Main Street Troy, New York 12180	911 518.270.5448 (Non-emergency number)
NYS Police	Emergency NYS Police Troop G Zone 1 Station 298 Brickchurch Road Troy, New York 12180	911 518.279.4426

UPSTATE NEW YORK REGIONAL POISON CONTROL CENTER:	University Hospital Upstate Medical University SUNY Health Science Center 750 East Adams Street Syracuse, New York 13201	800.222.1222
NATIONAL RESPONSE CENTER:	c/o United States Coast Guard (G-OPF) 2100 2nd Street, Southwest - Room 2611 Washington, DC 20593-0001	800.424.8802
NYSDEC SPILL HOTLINE:	24-hours	800.457.7362

2.0 HEATLH AND SAFETY PERSONNEL

The Office Health and Safety Officer (OHSO) will be responsible for implementing CT Male's health and safety policies and to ensure field work is in compliance with CT Male policies.

The Site Health and Safety Officer (SHSO) will be responsible for implementation of the HASP and the delegation of health and safety duties. The SHSO will coordinate the resolution of safety issues that arise during site work or ask the OSHO for direction and compliance of the situation. When field operations require only Level D protection, it will not be necessary for the SHSO to be present on-site at all times. When the SHSO is not present on-site, a designee will be authorized to perform the duties of the SHSO, and the designee will be responsible for implementation of the HASP.

The SHSO or designee has authority to stop work upon their determination of an imminent safety hazard, emergency situation or other potentially dangerous situations (e.g. weather conditions). Authorization to resume work will be issued by the OHSO or the SHSO.

3.0 SITE LOCATION AND DESCRIPTION

The Site is located in a rural-residential area within the Town of Brunswick, Rensselaer County, New York. The Site has not been assigned a physical address but is located along the east side of Oakwood Avenue, approximately 800 feet north of its intersection with Farrell Road. The Site is approximately 25.3 acres in size and constitutes the southern portion of Lot 2.2 of Block 2 of Section 80 of the Rensselaer County Tax Map. Lot 2.2 of the tax map is 39.97 acres in size.

The Site consists of heavily vegetated vacant land that was formerly used in part as a landfill. Areas of ponded water are present within eastern, southern and southwestern portions of the Site and a surface drainage is located along the western Site boundary.

4.0 POTENTIAL SITE CONTAMINANTS

Multiple sources have contributed contaminants to the Site. The earliest recorded significant contributor was the municipal incinerator once located to the northwest of the Site. This incinerator reportedly received municipal waste as well as approximately 2,000 tons of industrial trash containing heavy metals, organic compounds, and paint. Subsequent to cessation of incinerator operations, records show that dumping of industrial wastes (including paint sludges) at the Site continued for several years. Municipal solid waste and construction and demolition debris found at the current landfill surface show that random dumping occurred following the incinerator operation.

Chemicals that may have been deposited in the landfill within the Site boundaries include incinerator ash; sludge containing heavy metals, organic chemicals and paint; halogenated solvents affiliated with dry cleaning; paint waste scrapings; construction and demolition debris; and municipal solid wastes.

Contaminants of concern in the Site's media includes pesticides, PCBs and metals in surface soil; VOCs, pesticides, PCBs and metals in subsurface soil; petroleum- and chlorinated-type VOCs and metals in the overburden and bedrock groundwater; metals in surface water; and metals in sediment.

NYSDEC's DER, Bureau of Hazardous Site Control, Site Control Section conducted a review of the site records in March 1999. This review resulted in a reclassification of the site from Class 2 to Class 3. The reason for the change was as follows: "The disposal of a consequential amount of hazardous waste as defined by 6 New York Codes, Rules, and Regulations (NYCRR) Parts 371 and 375 has been confirmed. Threats to the public health and the environment relative to the confirmed hazardous waste disposal could not be demonstrated. The recognized impact on the soil, surface water, sediment, and groundwater at and near the site are attributable to the disposal of various hazardous substances at the site. Therefore, the site has been reclassified to a Class 3 standing in the registry and has been added to the *Hazardous Substance Disposal Site Study* inventory." Analytical data from the 1985, 1987, and 1996 site investigation activities indicate that the concentrations of some contaminants, including benzene, chlorobenzene, copper, lead, and mercury, exceed the applicable Standards, Criteria, and Guidance (SCGs). Some elements of 6 NYCRR Part 703, Water Quality Standards, and/or NYSDEC 6 NYCRR Subpart 375-6.8, *Remedial Program Soil Cleanup Objectives*, have been contravened.

		Chemical Name	Media	Primary Routes of Exposure	OSHA PEL	ACGIH TLV	IP electron volts (eV)
Metals	☒	Antimony	GW	Inhalation, Dermal	0.5 mg/m³	0.5 mg/m³	n/a
	☒	Arsenic	Soil	Dermal	0.5 mg/m³	0.2 mg/m³	n/a
	☐	Barium	Soil	Dermal	0.5 mg/m³	0.5 mg/m³	n/a
	☐	Beryllium	Soil	Dermal	2 µg/m³	0.05 µg/m³	n/a
	☒	Cadmium	Soil	Dermal	0.005 mg/m³	0.01 mg/m³	n/a
	☒	Chromium III	GW	Inhalation, Dermal	0.5 mg/m³	0.5 mg/m³	n/a
	☒	Chromium VI	GW	Inhalation, Dermal	0.005 mg/m³	0.005 mg/m³	n/a
	☐	Cobalt	Soil	Dermal	0.1 mg/m³	0.02 mg/m³	n/a
	☒	Copper	Soil, GW	Inhalation, Dermal	1.0 mg/m³	1.0 mg/m³	n/a
	☒	Lead	GW	Inhalation, Dermal	0.05 mg/m³	0.05 mg/m³	n/a
	☒	Manganese	Soil, GW	Inhalation, Dermal	5 mg/m³	0.2 mg/m³	n/a
	☒	Mercury	Soil	Dermal	0.1 mg/m³	0.025 mg/m³	n/a
	☐	Iron (Iron Oxide-PEL)	GW	Inhalation	10 mg/m³	5.0 mg/m³	n/a
	☒	Nickel	Soil	Dermal	1 mg/m³	0.5 mg/m³	n/a
	☒	Selenium	Soil, GW	Inhalation, Dermal	0.2 mg/m³	0.2 mg/m³	n/a
	☒	Silver	Soil	Dermal	0.01 mg/m³	0.01 mg/m³	n/a
	☐	Vanadium	Soil	Dermal	0.05 mg/m³	0.05 mg/m³	n/a
	☒	Zinc	Soil, GW	Inhalation, Dermal	15 mg/m³	10 mg/m³	n/a
	☒	PCBs	Soil	Dermal	1 mg/m³	0.001 mg/m³	n/a
Common Site COCs	☐	Benzo(a)anthracene	Soil, GW	Inhalation, Dermal	0.2 mg/m³	0.2 mg/m³	7.45
	☐	Benzo(a)pyrene	Soil, GW	Inhalation, Dermal	0.2 mg/m³	0.2 mg/m³	7.12
	☐	Chrysene	Soil, GW	Inhalation, Dermal	0.2 mg/m³	0.2 mg/m³	7.6
	☒	Acetone	Soil, GW	Inhalation, Dermal	2,400 mg/m³	250 ppm	9.69
	☒	Benzene	Soil	Inhalation, Dermal	1 ppm	0.5 ppm	9.24
	☒	Methyl Ethyl Ketone	Soil	Inhalation, Dermal	590 mg/m³	200 ppm	9.53
	☐	1,3-dichloropropane	Soil	Inhalation, Dermal	350 mg/m³	10 ppm	10.85
	☐	1,2-dichloropropane	Soil, GW	Inhalation, Dermal	350 mg/m³	10 ppm	10.87
	☐	Diesel fuel (TPH-DRO)	Soil, GW	Inhalation, Dermal	n/a	15 ppm	n/a
	☒	Dioxins/furans	Soil, GW	Inhalation, Dermal	n/a	n/a	9.19/8.89
	☒	Dust	Soil, GW	Inhalation	15 mg/m³	10 mg/m³	n/a
	☒	Ethylbenzene	Soil, GW	Inhalation, Dermal	100 ppm	20 ppm	8.77
	☐	Gasoline (TPH-GRO)	Soil, GW	Inhalation, Dermal	n/a	300 ppm	n/a
	☒	Hydrogen sulfide	Vapor	Inhalation	20 ppm (ceiling)	1 ppm (ST = 5ppm)	10.46
	☒	Methane	Vapor	Inhalation	n/a	1,000 ppm	12.98
	☒	Methylene Chloride	Soil, GW	Inhalation, Dermal	25 ppm	50 ppm	11.32
	☐	Phenol	Soil, GW	Inhalation, Dermal	5 ppm	5 ppm	8.5
	☒	Tetrachloroethylene (PCE)	Soil, GW	Inhalation	100 ppm	25 ppm	9.32
	☒	Trichloroethene (TCE)	Soil, GW	Inhalation, Dermal	100 ppm	10 ppm	9.5
	☐	Trichloroethane (TCA)	Soil, GW	Inhalation, Dermal	100ppm	10 ppm	11.00
	☒	Toluene	Soil, GW	Inhalation	200 ppm	20 ppm	8.82
	☒	Vinyl Chloride	Soil, GW	Inhalation	1 ppm	1 ppm	9.99
	☒	Xylene	Soil, GW	Inhalation	100 ppm	100 ppm	8.45, 8.56
	☐	4,4' – DDE[1]	Soil, GW	Dermal	1 mg/m³	0.5 mg/m³	n/a
	☐	4,4' – DDT[1]	Soil, GW	Dermal	1 mg/m³	0.5 mg/m³	n/a
	☐	4,4' – DDD[1]	Soil, GW	Dermal	1 mg/m³	0.5 mg/m³	n/a
		Use of PID with 10.6 bulb not recommended for these compounds. A PID with a 11.7 bulb is preferred. Detection of Methane through use of gas meter/detector.					

PEL = Permissible Exposure Limit PID = Photoionization detector

TLV = Threshold Limit Value ST = Short Term Exposure Limit

1. *Exposure limits based on DDT.*

4.1 Potential Exposure Pathways

Occupational exposure to chemical hazards associated with the work activities could potentially occur by dermal contact (skin contact), inhalation and an indirect route (incidental ingestion).

4.1.1 Dermal Contact

The primary route of potential exposure for C.T. Male employees is dermal contact. Personnel walking or handling associated equipment may be exposed to chemical hazards by skin contact or adsorption. However, exposure is expected to be limited since workers will be required to wear appropriate personal protective equipment (PPE) (i.e. appropriate work gloves, shoes, clothing, and safety glasses).

4.1.2 Ingestion

Personnel handling of associated equipment, including project hazardous materials, could be exposed by incidental ingestion. Typically, this exposure occurs if proper PPE was not used or personal hygiene was not practiced. Personal protection against exposure via ingestion can be accomplished by performance of proper decontamination procedures when exiting contaminated work areas as well as using the correct PPE.

4.1.3 Inhalation

Constituents that potentially pose an occupational concern to employees by the inhalation route are not expected for this scope of work. If a potential inhalation hazard is noted on-Site, C.T. Male staff will immediately stop work and take the appropriate steps to notify SHSO, PM or OHSO. The work being conducted will be reevaluated to determine the potential exposure and further PPE that may be needed.

5.0 HAZARD ASSESSMENT

5.1 General

The hazard assessment, use of specific protective equipment, and monitoring associated with each field work task of the RI to be conducted at the subject Site are presented in following subsections.

As per C.T. Male health and safety programs, personnel on-Site are required to be in modified Level D (reflective Hi-Vis safety vest and/or Hi-Vis shirt, safety glasses, and safety shoes), at a minimum, while on Site grounds and surrounding areas where work is being performed. Other Level D PPE may be required depending on the task including but not limited to hard hat, hearing protection, and protective clothing. If work is to occur on or near the water, then approved United States Coast Guard (USCG) flotation devices shall be worn. For work on water, the Job Hazard Analysis (JHA) for working on water needs to be reviewed prior to work beginning. Also, the specific tasks for working on water need to be reviewed prior to work starting. This will include a review of hazard assessments and non-routine tasks.

For this project, C.T. Male will be subcontracting portions of the RI activities and the Volunteer will be contracting others for the IRM work. Each contractor and subcontractor will be responsible for developing and implementing their own Site-specific HASP and for possessing applicable training and/or professional certificates for the work to be conducted per OSHA or other applicable regulations.

5.2 Media Sampling

5.2.1 Soil, Sediment, Surface Water and Groundwater Sampling

Soil, sediment, surface water and groundwater sampling are planned for the Site. The potential hazards to personnel during this work are dermal contact. Level D protection should be sufficient to protect against dermal contact during handling of soils, sediment, surface water and groundwater. If organic vapors are present at the action levels described in Section 5.7, on the basis of organic vapor monitoring of the area during the work, it may be necessary to upgrade to Level C respiratory protection.

5.2.2 Soil Gas Sampling

Soil gas sampling is planned for the Site. The potential hazards to personnel during this work are inhalation hazards and to a lesser degree dermal contact. Level D protection should be sufficient to protect against dermal contact during installation and removal of the soil gas sampling points. If organic vapors are present at the action levels described in Section 5.7, based on organic vapor monitoring of the area during the work, it may be necessary to upgrade to Level C respiratory protection.

5.3 Subsurface Work, Drilling Operations, and Installation of Monitoring Wells and Soil Gas Sampling Points

Exploratory test pitting and the advancement of test borings for the installation of monitoring wells and soil gas sampling points are planned for the Site. The potential hazards to personnel during this work are dermal contact and inhalation. Level D protection should be sufficient to protect against dermal contact during test pitting, drilling of and/or handling of the subsurface soils and groundwater. If organic vapors are present at the action levels described in Section 5.7, based on organic vapor monitoring of the area during the work, it may be necessary to upgrade to Level C respiratory protection.

During subsurface work adjacent to known landfill mass locations or in locations to determine the extent of the landfill mass, a four-gas or similar meter will be used for the detection of methane and hydrogen sulfide gas. Level D protection should be sufficient while setting up and monitoring the work with the four-gas meter. If the meter detects a gas, staff are to leave the area, in an upwind location, and a determination as to the concentration and type of gas will be completed. Once the situation is assessed by the SHSO or OSHO, then appropriate action will be taken as to next steps.

5.4 Investigative Derived Waste, Storage, Sampling, Treatment and Disposal

Investigative derived waste will be containerized in appropriately sized compatible containers for the waste, for subsequent characterization and profiling for disposal or treatment at a facility permitted to accept the waste. The potential hazards to personnel during this work are dermal contact and inhalation. Level D PPE will be used, along with appropriate PPE for hand protection, such as work gloves and/or cut resistant gloves. Level D PPE should be sufficient to protect against dermal contact during disposal of waste into the appropriate containers, sampling, and storage activities (securing tarps, lids for drums, etc.) If organic vapors are

present at the action levels described in Section 5.7, based on organic vapor monitoring of the area during the work, it may be necessary to upgrade to Level C respiratory protection.

5.5 Wetland Delineation and Survey of Site

The delineation of wetlands and survey of the Site are planned. The survey work includes surveying pre- and post-RI and IRM Site conditions and conducting an ALTA boundary and topographic survey. The potential hazards to personnel during this work are dermal contact. Level D protection should be sufficient to protect against dermal contact during handling of soils, plants, sediment, and surface water. If organic vapors are present at the action levels described in Section 5.7, on the basis of organic vapor monitoring of the area during the work, it may be necessary to upgrade to Level C respiratory protection.

If work is to occur on or near the water, then approved USCG flotation devices shall be worn. For work on water, the Job Hazard Analysis (JHA) for working on water needs to be reviewed prior to work beginning. Also, the specific tasks for working on water need to be reviewed prior to work starting. This will include a review of hazard assessments and non-routine tasks.

5.6 Interim Remedial Measure (IRM)

5.6.1 Clearing

Clearing of trees and vegetation is necessary at the Site during for the implementation of the IRM. The clearing activities include chipping of vegetation and removal of vegetation from the Site. The equipment that comes into contact with the Site's soil will be decontaminated prior to demobilization.

The potential hazards to personnel during this work are dermal contact, inhalation, and ingestion. Level D protection should be sufficient to protect against dermal contact, inhalation, and ingestion during clearing activities. Level D PPE shall include, reflective Hi-Vis safety vest and/or Hi-Vis shirt, safety glasses, safety shoes, hard hat, hearing protection, protective clothing and cut resistant gloves. Level D PPE shall be worn on Site grounds and surrounding areas where work is being performed.

During these activities, dust monitoring will be conducted for particulate matter less than 10 microns in diameter (PM10). Corrective actions to protect site personnel will be based on the particulate dust monitoring in the Community Air Monitoring Plan (CAMP) contained in Attachment A.

If organic vapors are present at the action levels described in Section 5.7, based on organic vapor monitoring of the area during the work, it may be necessary to upgrade to Level C respiratory protection.

5.6.2 Localized Grading, Installation of Cover Material, Access Roads, Fencing and Utilities, and Removal of Surface Solid Wastes

The installation of permanent fencing, utilities, cover material and access roads; localized grading; and the removal of surface solid wastes at the Site may be implemented as part of the IRM activities. These activities would include import of soils, stockpiling of soils, localized grading of soils, consolidation of surface waste materials for off-site disposal, and fence and utility installations. The equipment that comes into contact with the Site's soil will be decontaminated prior to demobilization.

The potential hazards to personnel during this work are dermal contact, inhalation, and ingestion. Level D protection should be sufficient to protect against dermal contact, inhalation, and ingestion during the localized grading activities. Level D PPE shall include, reflective Hi-Vis safety vest and/or Hi-Vis shirt, safety glasses, safety shoes, hard hat, hearing protection, and protective clothing. Level D PPE shall be worn on Site grounds and surrounding areas where work is being performed.

During these activities, dust monitoring will be conducted for particulate matter less than 10 microns in diameter (PM10). Corrective actions to protect site personnel will be based on the particulate dust monitoring in the Community Air Monitoring Plan (CAMP) contained in Attachment A.

If organic vapors are present at the action levels described in Section 5.7, based on organic vapor monitoring of the area during the work, it may be necessary to upgrade to Level C respiratory protection.

5.7 Air Monitoring

During ground intrusive activities and activities outlined in Section 5.2 to 5.6, the ambient air in the work area will be monitored with a photoionization detection (PID) meter (total volatile compounds – MiniRAE 3000) with an 11.7 eV bulb prior to the start of work and periodically as conditions warrant.

If a concentration of 10 ppm (sustained for 5 minutes) of total volatile compounds are detected within the work area on the instrument, relative to an isobutylene standard (used to calibrate the instrument), work will cease immediately, and the workers shall shut down equipment and leave the area immediately. The level of personal protective equipment (PPE) protection will be evaluated prior to continuing work. If a PPE upgrade to Level C is required, it will include: a half face air purifying respirator equipped with combination organic vapor and particulate cartridges for 10-15 ppm exposure levels; and a full-face air purifying respirator for greater than 15 ppm to less than 50 ppm exposure levels, prior to continuing work. If a concentration greater than 50 ppm is encountered, work will cease immediately and the situation will be evaluated prior to continuation of work. Table 1 summarizes the action levels relative to the required respiratory protection.

Table 1
C.T. Male Action Levels & Required Respiratory Protection

Action Level	Level of PPE	Type of Respiratory Protection
0-10 parts per million	Level D	No respiratory protection
10-15 parts per million	Level C	Negative pressure half-face respirator
15-50 parts per million	Level C	Negative pressure full-face respirator
Greater than 50	Cease Work	Evaluate work procedures

- Facial hair is not permitted while wearing most respirators.

- Workers required to wear a respirator must have a minimum of OSHA 40 Hour training with current medical monitoring and fit test documentation.

5.8 Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) will be followed for the project based on the New York State Department of Health Generic Community Air Monitoring Plan dated May 2010. The CAMP will be followed during ground intrusive RI and IRM activities (i.e., subsurface investigation activities). The intent of the CAMP 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 the RI and IRMs. The CAMP is not intended for use in establishing action levels for worker respiratory protection. The CAMP will monitor the air for dust (particulate air monitoring) and volatile organic compound vapors (VOC air monitoring) at the downwind perimeter of the work area.

The CAMP is included in Attachment A.

5.9 Hazard Identification and Control

The following table presents generalized hazards potentially involved with the tasks to be completed on this project. Table 2 identifies general procedures to follow to prevent or reduce accident, injury or illness. Any worker on-site who identifies a potential hazard must report the condition to the SHSO or designee, and initiate control of the hazardous condition.

Table 2
Potential Hazards and Control

Potential Hazard	Control
Vehicular Traffic	1. Wear Hi-Vis safety vest when vehicular hazards exist. 2. Use cones, flags, barricades, and caution tape to define work area. 3. Use vehicle to block work area. 4. Use vehicle caution lights in high traffic areas within the Site. 5. Contact local police for high traffic situations on public roadways.
Vehicular Traffic On-Site / Clearing, Excavation, Grading, Test Pitting, Test Borings	1. Wear Hi-Vis safety vest and hard hat when vehicles are in motion on-Site. 2. Use of hand signals or other means (pre-established before work starts) to communicate with vehicular drivers on-Site. 3. Do not walk in front of or behind vehicles on-Site without the driver acknowledging your presence and allowing you to cross. 4. Follow traffic plan by subcontractor for vehicle movement on-Site. 5. Do not allow non-Site personnel to enter the area where the vehicles are moving.
Slip, Trip, and Fall Protection	1. Assess work area to determine if there is a potential for falling. Additional PPE can be utilized to reduce slip, trip, fall hazards. 2. Make sure work area is neat and tools are staged in one general area. 3. Wear steel-toe boots with adequate tread and always watch where the individual is walking. Carry flashlight when walking in poorly lighted areas.
Inclement Weather	1. Stop outdoor work during electrical storms and other extreme weather conditions such as extreme heat or cold temperatures. 2. If there is lighting or thunder, staff need to stop work for 30 minutes since last occurrence and take cover in a safe location. Not in a field or under a tree. 3. Take cover indoors or in vehicle.

Table 2 Potential Hazards and Control	
Potential Hazard	**Control**
	4. Listen to local forecasts for warnings about specific weather hazards such as tornadoes, hurricanes, and flash floods.
Utility Lines Contact	1. Contact UFPO to have utility lines marked prior to any underground excavation, trenching or drilling. UFPO must be contacted at least 72 hours prior to work. 2. Conduct onsite utility mark out by a subcontractor, if needed. 3. Refer to site drawings for utility locations. 4. Pre-clear the utility. Refer to the guidance on clearance from Dig Safely 811.
Noise	1. Wear hearing protection when equipment such as a drill rig, excavator, jackhammer, or other heavy equipment is operating on-site. 2. Wear hearing protection whenever you need to raise your voice above normal conversational speech due to a loud noise source; as this much noise indicates the need for protection. 3. Hearing protection is required when measured sound exceeds 85 decibels (dB) where employees stand or conduct work.
Electrical Shock	1. Maintain appropriate distance between heavy equipment and overhead utilities; 20 foot minimum clearance from power lines; and 10 foot minimum clearance from shielded power lines. 2. Contact local underground utility locating service prior to penetrating the ground surface.
Hand and Power Tools	1. Ensure cords to tools are not frayed and are properly grounded. 2. Ensure guards for power tools are in place (such as portable circular saw) as recommended by the manufacturer. 3. Tool cutting edges are kept in proper condition so the tool will operate properly. 4. Worn or bent tools are not to be used. Tool handles must be secure. 5. When not in use, tools are stored in a dry, secure location. 6. Ensure proper PPE use with hand and power tools. Cut or puncture resistant gloves, or work gloves to provide protection may be used. Check with OSHO or SSHO prior to use of the power tools. 7. If a generator is used with the power tools, ensure there is proper ventilation for the generator.
Physical Injury	1. Wear safety glasses, reflective Hi-vis safety vest and/or shirt always when on-site. Personnel to have hearing protection on them and in use when it is required.

Table 2 Potential Hazards and Control	
Potential Hazard	**Control**
	2. Maintain visual contact with any equipment operators and wear hard hats and Hi-vis safety vest when heavy equipment is operating on-site. Be aware of other vehicle traffic while heavy machinery is operating onsite. 3. Avoid loose clothing, long hair, and jewelry when working around rotary equipment. 4. Keep hands and feet away from drilling augers, excavation equipment tracks/tires, and other onsite heavy equipment. 5. Test emergency shut-off switches on equipment prior to daily use. 6. Wear life preserver in boats. 7. Do not enter manholes or confined spaces. 8. Be aware of openings into manholes and keep area clear of trip hazards. 9. Be aware of outside terrain – steep slopes and slip, trip hazards while working. 10. Be aware of biological hazards onsite such as insects (bees, mosquitoes, and flies), ticks, spiders, and snakes. 11. Be aware of botanical hazards such as poison ivy, poison sumac, and giant hogweed.
Back Injury	1. Use a mechanical lifting device or a lifting aid where appropriate. 2. Ensure the route is free of obstructions. 3. Bend at the knees and use leg muscles when lifting. 4. Use the buddy system if lifting heavy or awkward objects. 5. Do not twist or jerk your body when lifting.
Heat Stress	1. Increase consumption of water and electrolytes while working. 2. Avoid excessive alcohol intake the night before working in heat stress situations. 3. Avoid excessive caffeine intake when working in heat stress situations. 4. Increase number of rest breaks as necessary, and rest in a shaded area. 5. Watch for signs and symptoms of heat exhaustion and fatigue. 6. Rest in cool, dry areas. 7. In the event of heat stress or heat stroke, bring the victim to a cool environment and call 911.
Cold Stress	1. Wear cotton, wool or synthetic (polypropylene) undergarments to absorb perspiration from the body. 2. Wear additional layers of light clothing as needed for warmth. The layering

Table 2 Potential Hazards and Control	
Potential Hazard	**Control**
	effect holds in air, trapping body heat, and some layers could be removed as the temperature rises during the day. 3. Pay close attention to body signals and feelings (hypothermia symptoms), especially to the extremities. Correct any problem indicators by breaking from the work activity and moving to a rest area to warm up and add additional clothing. 4. Increase water intake while working. 5. Avoid excessive alcohol intake the night before working in cold conditions. 6. Increase the number of rest breaks as necessary, and rest in a warm area. 7. In the event of hypothermia or frost bite, bring the victim to a warm environment and call 911.
Fire Control	1. Smoking is not allowed on-site. 2. Keep flammable liquids in closed containers. 3. Isolate flammable and combustible materials from ignition sources. 4. Keep fire extinguisher nearby and use only if deemed safe. 5. Inform SHSO prior to a chemical being brought onsite. 6. Facility Hot Work permit may be required for certain tasks. "Hot work" means riveting, welding, flame cutting or other fire or spark-producing operation.
Media Sampling (water, soil, sediment, soil gas, etc.)	1. Wear appropriate PPE to avoid skin, eye, and inhalation contact with contaminated media. 2. Stand upwind to minimize possible inhalation exposure, especially when opening monitoring wells or closed containers/vessels. 3. Conduct air monitoring, whenever necessary, to determine level of respiratory protection. 4. If necessary, employ engineering controls to assist in controlling chemical vapors. 5. When collecting samples on or near water bodies, wear a life jacket and employ the buddy system. 6. When collecting samples from water bodies, assess water conditions and the water current and ensure that the sampling vessel is stabilized, or the water is safe to enter.
Working on Water	1. Review Job Hazard Analysis for Working on water. 2. Wear proper PPE per hazard assessment along with USCG approved life jackets. If water temperature below 50F, mustang coat should be worn, if under 40F full mustang suit should be worn.

Table 2 Potential Hazards and Control	
Potential Hazard	**Control**
	3. Prior to and after each use, the life jackets shall be inspected for defects which would alter their strength or buoyancy. Defective units shall not be used. 4. If placing a boat into the water from a trailer - Lower driver's side window and remove seat belt for escape when launching at boat ramp in the event vehicle enters water. 5. If launching canoe from shoreline check for uneven footing or slippery conditions, level or clear as necessary. 6. Assess launch areas for poisonous plants, animals, spiders, bee nests. 7. Operators of motorized vessels must have NY State boating safety certificate/training. Check requirements for other states 8. Boat should be operated with 2 people on board or one person on shore/in communication with vessel. 9. Follow/obey boating laws, maintain safe speeds and recognize aids to navigation.
Cleaning Equipment	1. Wear appropriate PPE to avoid skin and eye contact with Alconox or other cleaning materials. 2. Stand upwind to minimize possible inhalation exposure. 3. Properly dispose of spent chemical cleaning solutions and rinse accordingly. 4. Rinse water shall be contained and disposed of properly.
Poor Structural Building Condition	1. Assess building and rooftop condition prior to accessing and note where exit points are at all times. 2. Be cautious when walking inside a building. Always look for holes in the floors or hanging debris which could cause injury. 3. Carry a high powered flashlight and use as necessary in low light areas. 4. If working in a building, ensure work area is neat and tools are staged in one general area. 5. If working on a rooftop, maintain a safe distance from the roof ledge and do not access sloped roof surfaces without proper safety controls. 6. Wear steel-toe boots with adequate tread. 7. Attempt to employ the buddy system so someone knows what part of the building individuals are located.

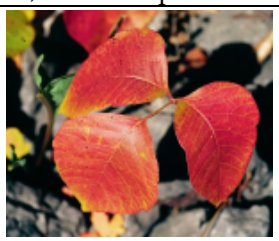
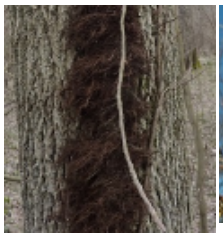
Table 2 Potential Hazards and Control	
Potential Hazard	**Control**
Deer Ticks, Vectors, Bees	1. Wear long pants and long sleeve shirts. Pants could be tucked into the top of socks at boot level. Shirt tucked into pants. 2. Wear insect repellant clothing, if available, see SHSO for appropriate clothing. 3. Use tick or insect repellent, this will need to be cleared with OSHO or SHSO to ensure that new chemicals are not introduced to the Site. 4. Be aware of possible bees' nests while opening wells, walking onsite, and clearing & grubbing trees. If you have a known allergy to bees, a coworker shall clear the area in which you are to work prior to your entrance in the work area. 5. Perform personal body checks for the presence of ticks, and other vectors, after field work is complete and before the personnel have left the Site. 6. Notify the Office Health and Safety Officer immediately if you have been bitten by a tick, spider, bee or other vector. Even if you discovered a tick on yourself, and it has not bitten through you skin.
Poisonous Plants	1. NYS Poisonous plants that may be encountered wild parsnip, poison ivy (green and red leaves, vines, and berries), poison sumac (found in wetland areas) and stinging nettle. 2. Stay on the trails and away from areas known to have these plants. 3. Carefully wash any sap from clothing, equipment and pets. 4. Do not touch, cut, or collect parts of these plants, even for identification purposes.
Green poison ivy leaves *Red poison ivy leaves* *Poison ivy vine* *Poison ivy berries*	   

Table 2
Potential Hazards and Control

Potential Hazard	Control
 Wild Parsnip	 Poison Sumac
  Stinging Nettle	

Note: A first aid kit and fire extinguisher will be located in the C.T. Male company vehicle.

Response actions to personal exposure from on-site contaminants include skin contact, eye contact, inhalation, ingestion, and puncture or laceration. The recommended response actions are presented in Section 11.2.

5.10 COVID-19

To address work site safety regarding COVID-19, C.T. Male has utilized information from OSHA, CDC, NYSDOH, NYS, and other public officials. C.T. Male staff shall follow the C.T. Male 'Safety Plan for COVID-19", dated May 2020 (Attachment B).

For field activities, C.T. Male shall follow C.T. Male's SOP – 'Procedures for field staff in relation to COVID-19 or other virus', dated March 19, 2020 (included in Attachment B).

In addition to the above referenced SOP, C.T. Male employees will not report to work and notify their supervisor immediately if they are experiencing illness such as fever, cough, shortness of breath or difficulty breathing, chills, repeated shaking with chills, muscle aches, sore throat, loss of taste or smell, or runny/stuffy nose. Refer to CDC guidance on "Symptoms of Coronavirus (COVID-19)" and "How to protect yourself and others" (included in Attachment B).

C.T. Male will also:

- Per NYS Executive Order 202.16 by Gov. Cuomo, C.T. Male's staff will wear face coverings when on-Site, with exception of when in C.T. Male vehicle. C.T. Male staff shall follow the guidelines for face coverings issued by the CDC and NYSDOH (included in Attachment B);
- C.T. Male staff that have a temperature at or above 100.4 degrees shall notify the project manager immediately and shall refrain from entering the Site;
- Maintain Social Distancing: Six-foot distance with others, as is possible;
- Cease shaking hands with coworkers, contractors, subcontractors, clients, et cetera;
- Make effort to hold safety/tailgate meetings outdoors; maintain social distancing of six feet;
- Eat lunch separately, at least six feet apart;
- Avoid sharing tools and equipment without cleaning and disinfecting;
- Avoid touching their eyes, nose and mouth with unwashed hands;
- Cover their cough or sneeze with a tissue, then throw the tissue in the trash;
- Clean and disinfect frequently touched objects and surfaces using a bleach solution or wipe;
- Wash their hands often with soap and water for 20 seconds, and use an alcohol-based hand sanitizer that is 60% alcohol when soap and water are unavailable;
- Upon return, the vehicle steering wheel and door handles are wiped down with disinfect wipe or spray disinfectant; and
- All personal field gear should remain with the individual employee; it should not be left in a company vehicle, job site, or in the office.

6.0 TRAINING

Site specific training of workers and personnel will be conducted and provided by the OSHO or SHSO or designee prior to any on-site activity. The training will specifically address the activities, procedures, monitoring and equipment for the site operations. It will include area and facility layout, hazards, emergency services (police, hospital, fire, etc.), and review of this HASP. Questions by workers, field personnel, etc. will be addressed at this time.

Workers and personnel conducting and/or supervising the project must have attended and successfully completed a 40 Hour Health and Safety Training Course for Hazardous Waste Operations and an annual 8 hour Refresher Course. Workers must take part in an employer medical surveillance program in accordance with OSHA 1910.120 requirements, including that the workers have had a medical physical within one (1) year prior to the date work begins and that they are physically able to wear a respirator.

Documentation of training and medical surveillance will be submitted to the OSHO of designee prior to the start of any on-Site work. A copy of the training certificates shall be maintained by the OSHO and Human Resources Department at the C.T. Male Latham office.

7.0 SITE ACCESS

The RI and IRMs will be conducted within and at the inside perimeter of the Site boundaries. Due to the site location, it is possible that the public or curious bystanders may be present at the time of the work. As such, the work area and exclusion zone will be considered as the following, dependent on the RI and IRM tasks performed.

- Cones will be used to delineate an approximate 100-foot square (10' by 10') around the test boring location or 400-square (20' by20') around the test pit locations. If the field operations are in an area of high traffic or potential public encounters, caution tape in conjunction with the cones can be used. All work and equipment will remain within the designated work area/exclusion zone until completion of the test pits, test borings and monitoring well/soil gas sampling point installations.

Only OSHA trained individuals who are qualified to do the work and have read and signed this Site-specific HASP will be allowed within the work/exclusion zone. The SHSO or designee will be responsible for limiting access to unauthorized individuals.

The Contamination Reduction Zone (decontamination area), and Support Zone (clean area, everywhere else) will be established outside the Exclusion Zone, as necessary. The exclusion, contamination reduction, and support zone during the RI and IRM work have been identified and designated as follows:

Work/Exclusion Zone - The location of the work/exclusion zone will be determined in the field prior to the start of work and will vary depending on the work activities conducted. For the most part, the work/exclusion zone is anticipated to be defined with caution tape and cones (see above). Only authorized persons with proper training and protective gear will be allowed to enter the work/exclusion zone.

Contamination Reduction Zone – If applicable, this zone will generally be a 30'± x 30'± area, marked off with stakes, colored flagging, cones, or equal method, containing the decontamination pad. The location will be determined in the field prior to the start of work and will vary depending on the area(s) the work is being conducted. This zone is where decontamination of personnel and equipment will take place, as necessary, on the basis of the work being performed.

Support Zone - Area outside of the contamination reduction zone; not including the work/exclusion zone. Unauthorized or untrained individuals must remain in this zone.

8.0 PERSONAL PROTECTION

8.1 Level of Protection

Based on an evaluation of the potential hazards, the minimum level of protection to be worn by workers during implementation of the RI and IRM activities is defined as Level D protection and will be controlled by the HSO or designee.

The minimum level D protective equipment will consist of field clothes, Hi-Vis shirts or vests, rubber and/or nitrile gloves, safety glasses, face covering (COVID-19), and safety boots (steel or composite toe). As appropriate, this level of protection may be modified to include hard hats, ear plugs, protective suits, coveralls, leg chaps, or face shield for additional protection.

If required, level C protective equipment will consist of the items listed for Level D protection with the added protection of a half face air purifying respirator or a full-face air purifying respirator equipped with combination organic vapor and particulate cartridges as outlined in Section 5.7, chemical resistant clothing, inner and outer chemically resistant gloves (i.e. nitrile and/or PVC), and chemical resistant safety over boots. Prior to field staff donning a respirator, C.T. Male's Project Manager and Corporate Safety Manager will need to approve the use of the respirator and staff donning them. Staff that have medical clearance and have been fit tested, should have their full-face or half-face air purifying respirators available. Appropriate combination organic vapor and particulate cartridge filters will be available at the Site to use, if necessary, with the air purifying respirators.

Level A or B is not anticipated for the Site conditions. When site conditions warrant the need for level A or B protective equipment, work will cease, and the project will be re-evaluated to determine the necessity for employing engineering controls to reduce or eliminate the potential contaminants of concern. C.T. Male staff are not approved for donning SCBA equipment.

8.2 Safety Equipment

Basic emergency and first aid equipment will be available at an area within the Support Zone clearly marked and available or within C.T. Male's company vehicle. This shall include, at a minimum, a first aid kit, fire extinguisher, supply of potable water, soap, towels, face covering, Clorox wipes or bleach solution. Extra PPE will also be kept in the work area, or within CT Male company vehicle. The SHSO or designee shall be equipped with a cellular phone in case of emergencies.

9.0 COMMUNICATIONS

The SHSO or designee will be equipped with a cellular phone in case of emergencies. The SHSO or designee shall notify the C.T. Male Project Manager and OSHO as soon as safely possible in the event of an accident, injury or emergency action.

Hand signals for certain work tasks will be employed, as necessary, and the buddy system will be employed, if feasible, during test pits, test borings, installation of monitoring wells and soil gas sampling points, and sediment and surface water sampling.

10.0 DECONTAMINATION PROCEDURES

10.1 Personnel Decontamination Procedures

Decontamination procedures will be carried out by all personnel leaving the Work/Exclusion Zone (except under emergency evacuation). The amount of decontamination performed will be dependent on the level of personal protection currently being worn within the exclusion zone.

1. Do not remove respiratory protection until all steps have been completed.
2. Clean outer protective gloves and outer boots, if worn, with water (preferably with a pressurized washer) over designated wash tubs in the exclusion zone to remove the gross amount of contamination.
3. Deposit equipment used (tools, sampling devices, and containers) at designated drop stations - on plastic drop sheets or in plastic lined containers. If disposable equipment is used, it can be discarded in the designated container.
4. Rinse outer boots if worn and gloves with clean water in designated rinse tubs. Remove outer boots if worn and gloves and deposit in designated area to be determined in the field for use the next day or when necessary. If disposable outer boots are worn, remove and discard in designated container.
5. Remove protective suit, if worn, and discard in designated container. If ear plugs were used, they can be discarded in designated container. Remove respirator at this time, if used; wash and rinse with clean water. Organic vapor and particulate cartridges, when used, will be replaced daily. Used cartridges will be discarded in the designated waste container. Remove inner gloves and discard in designated container.
6. Remove hard hat & safety glasses, clean with Clorox wipes or Clorox bleach solution (or similar) prior to placing into C.T. Male vehicle.
7. Prior to entering the C.T. Male Vehicle, ensure that C.T. Male SOP for field staff in relation to COVID-19 is followed.

10.2 Equipment and Sample Containers Decontamination

All decontamination will be completed by personnel in protective gear appropriate for the level of protection determined by the site SHSO or designee. Manual sampling equipment including scoops, hand augers, macro-core samplers and shovels which come into contact with the site's

soils and sediment will be cleaned with a tap water (or filtered water)/detergent wash and a tap water (or filtered water) rinse. The sampling equipment will be decontaminated after each sample is collected at the Contaminant Reduction Zone (Decontamination Station).

Drill rig attachments (i.e., augers, casing, drill rods, bits, core samplers, etc.) which comes into contact with the Site's soils will be decontaminated with a high pressure/hot water wash and/or other methods within the Contaminant Reduction Area. The cleaning will be performed at the completion of each boring location.

Larger equipment (i.e., drill rig, excavator) which comes into contact with the Site's soils will be decontaminated with water wash and/or other methods within the Contaminant Reduction Area on a decontamination pad. The decontamination procedure will focus on portions of the equipment that has come into contact with the Site's soils. The cleaning will be performed prior to the equipment leaving the Site.

If cleaning wash and rinse water and/or the media (soil/groundwater) being cleaned from the equipment does not exhibit field evidence of contamination (as noted in the first bullet of section 1.1), it will be spread out over the site's ground surface. If there is evidence of field contamination, then the impacted cleaning wash and rinse water and/or media will be placed in 55-gallon drums for profiling and subsequent off-site disposal at a permitted treatment, storage and disposal facility (TSDF). The drums will be staged in a secure area within the Site. The same procedures will apply for media exhibiting field evidence of contamination during sampling of the site's media.

Exterior surfaces of sample containers will be wiped clean with disposable paper towels in the decontamination zone and transferred to a clean cooler for transportation or shipment to the analytical laboratory or for pickup at the site by a laboratory provided courier. Sample identities will be noted and checked off against the chain-of-custody record. The disposable paper towels will be placed in the designated disposal container and disposed of as solid waste.

11.0 EMERGENCY RESPONSE PROCEDURES

THE PROJECT EMERGENCY COORDINATOR IS:

Office Health and Safety Officer (OHSO)	Nancy Garry
Site Health and Safety Officer (SHSO)	Jonathan Dippert
Project Manager	Kirk Moline

The following standard emergency procedures will be used by on-site personnel. The Project Manager and OHSO shall be notified of any on-site emergencies and be responsible for assuring that the appropriate procedures are followed.

11.1 Personal Injury

Emergency first aid shall be administered on-site as deemed necessary and only by a trained individual, if available at the site. If a trained individual is not available on-site, decontaminate if feasible, and transport individual to nearest medical facility (Samaritan Hospital). If feasible, the injured individual shall not transport themselves to the nearest medical facility. The SHSO will be responsible for completing the incident report in conjunction with the employee.

11.2 Personal Exposure

The recommended response to worker exposure from contaminants on-site includes the following:

SKIN CONTACT: Use generous amounts of soap and water. Wash/rinse affected area thoroughly, then provide appropriate medical attention, as necessary.

EYE CONTACT: Wash eyes thoroughly with potable tepid water supply provided on site. Eyes should be rinsed for at least 15 minutes subsequent to chemical contamination. Provide medical attention, as necessary.

INHALATION: Move worker to fresh air and outside of the work zone and/or, if necessary, decontaminate and transport to hospital (Samaritan Hospital). If respirator use is implemented at the time of inhalation, worker must not remove respirator until completely away from the work zone.

INGESTION: Decontaminate, if feasible, and transport to hospital (Samaritan Hospital).

PUNCTURE WOUND OR
LACERATION: Provide first aid at the site and if wound needs medical attention, decontaminate, if feasible, and transport to hospital (Samaritan Hospital).

If the affected worker is exposed to contaminants on-site and the injury or accident prevents decontamination of the individual, the emergency responders must be notified of this condition and the exposure must be kept to a minimum.

11.3 Potential or Actual Fire or Explosion

Immediately evacuate area in the event of potential or actual fire or explosion. Notify the local Fire and Police Departments, and other appropriate emergency response groups as listed in Section 1.2. Perform off-site decontamination and contain wastes for proper disposal. If a fire or explosion occurs, all on-site personnel must meet in the designated area of the site (established by the SHSO or designee – prior to work starting and relayed to site workers) for an accurate head count.

11.4 Equipment Failure

Should there be any equipment failure, breakdown, etc. the Project Manager and SHSO shall be contacted immediately. The Project Manager or the SHSO will make every effort to replace or repair the equipment in a timely manner.

11.5 Spill Response

The site SHSO or designee shall initiate a corrective action program with the subcontractors in the event of an accidental release of a hazardous material, suspected hazardous material or petroleum. The SHSO or designee will act as the Emergency Coordinator with the subcontractors for the purposes of: spill prevention; identifying releases; implementing clean up measures; and notification of appropriate personnel.

The corrective action program will be implemented by the SHSO or designee and subcontractor to effectively control and minimize any impact accidental releases may have to the environment.

Effective control measures will include:

- Preliminary assessment of the release.

- Control of the release source.
- Containment of the released material.
- Effective clean-up of the released material.

Potential sources of accidental releases include: hydraulic oil spills or petroleum leaks from heavy equipment; cooling oils (potentially PCB containing) for electrical equipment handling and cleaning; and spills from drums and tanks. The SHSO or designee in conjunction with the subcontractor shall respond to an accidental release in the following manner:

- Identify the character, source, amount and area affected by the release.
- Have subcontractor take all reasonable steps to control the release.
- Notify facility personnel.
- Notify the NYSDEC Spill Hotline at 1-800-457-7362 if required.
- Contain the release with sorbent material which should include speedi-dry, spill socks and sorbent pads.
- Prevent the release from entering sensitive receptors (i.e., catch basins and surface water) using the specified sorbent material or sandbags.
- Coordinate cleanup of the released material.
- Oversee proper handling and storage of contaminated material for disposal.

At no time should personal health or safety be compromised or jeopardized in an attempt to control a release. All health and safety measures as outlined in this HASP should be adhered to.

12.0 ADDITIONAL WORK PRACTICES

Workers will be expected to adhere to the established safety practices. Work on the project will be conducted according to established protocol and guidelines for the safety and health of all involved. The following will be adhered to:

- Employ the buddy system when possible, and for those work tasks which require it. Establish and maintain communications.
- Minimize contact with potentially contaminated soil, sediment, surface water, groundwater and soil gas.
- Employ disposable items when possible to minimize risks during decontamination and possible cross-contamination during sample handling.
- Smoking, eating, or drinking after entering the work zone and before decontamination will not be allowed.
- Avoid heat and other work stress related to wearing personal protective equipment. Take breaks as necessary and drink plenty of fluids to prevent dehydration.
- Withdrawal from a suspected or actual hazardous situation to reassess procedures is the preferred course of action.
- The removal of facial hair (except mustaches) prior to working on-site will be required to allow for a proper respiratory face piece fit.
- The Project Manager, OHSO, SHSO, and field personnel shall maintain records recording daily activities, meetings, facts, incidents, data, etc. relating to the project. These records will remain at the project site or electronically available during the full duration of the project so that replacement personnel may add information while maintaining continuity. These daily records will become part of the permanent project file.

13.0 AUTHORIZATIONS

Personnel authorized to enter the exclusion zone at the OTMI Site in the Town of Brunswick, Rensselaer County, New York while operations are being conducted must be certified by the OHSO or SHSO. Authorization will involve completion of appropriate training courses and review and sign off of this HASP.

Personnel authorized to perform work on-site are as follows:

Company Representing	Written Name
C.T. Male	Kirk Moline, Jeffrey Marx, Dan Reilly, Jon Dippert, Dan Achtyl, Chris Ormsby, Dan King, Cliff Bondi, Brittany Taranto, Ryan Hubbard, Nancy Garry, Steve Bieber, Jorel Spain, Adam Rodgers, Rosaura Andujar-McNeil, Mary Loughlin.

14.0 FIELD TEAM REVIEW

Each field team member shall sign this section after site specific training is completed and before being permitted to work on-site.

I have read and understood this Site Specific Health and Safety Plan, and I will comply with the provisions contained therein.

PROJECT: Remedial Investigation/Interim Remedial Measures
OTMI - Old Troy Municipal Incinerator BCP Site
Oakwood Avenue
Town of Brunswick
Rensselaer County, New York

Name: Printed	Signature	Date

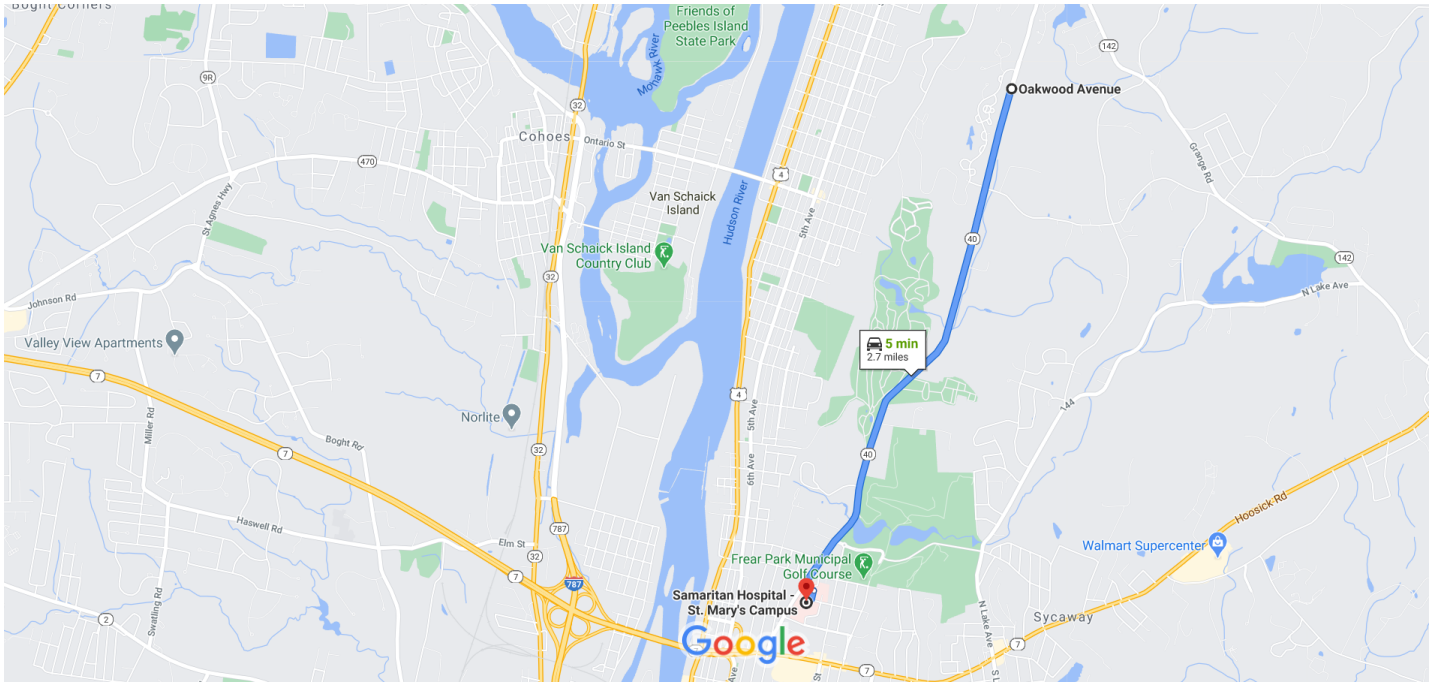
FIGURE 1

MAP SHOWING ROUTE TO SAMARITAN HOSPITAL, St. Mary's Campus

Google Maps

Oakwood Ave, Troy, NY 12180 to Samaritan Hospital - St. Mary's Campus

Drive 2.7 miles, 5 min



Map data ©2020 2000 ft

Oakwood Ave

Troy, NY 12180

1. Head south on NY-40 S/Oakwood Ave toward Farrell Rd

2.6 mi

2. Turn left onto Massachusetts Ave

285 ft

3. Turn right to stay on Massachusetts Ave

Destination will be on the right

213 ft

Samaritan Hospital - St. Mary's Campus

1300 Massachusetts Ave, Troy, NY 12180

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

ATTACHMENT A

COMMUNITY AIR MONITORING PLAN

May 2021

Community Air Monitoring Plan

Old Troy Municipal Incinerator Site
East Side of Oakwood Avenue
Town of Brunswick
Rensselaer County, New York
Site #C442001

Prepared by:

C.T. MALE ASSOCIATES
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Latham, New York 12110
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FAX (518) 786-7299

C.T. Male Associates Project No: 21.1151

COMMUNITY AIR MONITORING PLAN
OLD TROY MUNICIPAL INCINERATOR SITE (C442001)
EAST SIDE OF OAKWOOD AVENUE
TOWN OF BRUNSWICK, RENSSELAER COUNTY, NY

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ATTACHMENTS

1.0 GENERAL

1.1 Overview

C.T. Male Associates Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C. (C.T. Male) has prepared this Community Air Monitoring Plan (CAMP) for the proposed Remedial Investigation (RI) and Interim Remedial Measures (IRMs) to be conducted at the Old Troy Municipal Incinerator (OTMI) Brownfield Cleanup Program (BCP) Site (the "Site") located along the eastern side of Oakwood Avenue in the Town of Brunswick, Rensselaer County, New York.

This CAMP fulfills the requirements set forth by the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan, dated June 2000 (Attachment A), and the New York State Department of Environmental Conservation (NYSDEC) DER-10 Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites (Attachment B).

The intent of the CAMP 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 RI and IRM work activities. The CAMP is not intended for use in establishing action levels for worker respiratory protection. The CAMP will monitor the air for dust (particulate air monitoring) and volatile organic compound (VOC) vapors (VOC air monitoring) at the upwind and downwind perimeter of the work area(s). The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown.

1.2 Site Description

The Site is located in a rural-residential area within the Town of Brunswick, Rensselaer County, New York. The Site has not been assigned a physical address, but is located along the east side of Oakwood Avenue, approximately 800 feet north of its intersection with Farrell Road. The Site is approximately 25.3 acres in size and constitutes the southern portion of Lot 2.2 of Block 2 of Section 80 of the Rensselaer County Tax Map. Lot 2.2 of the tax map is 39.97 acres in size. See Figure 1: Site Location Map and Figure 1A: Tax Map showing the Site boundaries relative to the larger tax parcel lot.

The Site consists of heavily vegetated vacant land that was formerly used in part as the OTMI landfill. Areas of ponded water are present within eastern, central southern and southwestern portions of the Site's boundaries. A surface drainage is located along the western Site boundary. The blue hatched line on Figure 2: Site Features Map depicts the approximate boundary of the landfill mass within the Site boundaries.

1.3 RI and IRM Activities

RI activities will be completed as per the May 2021 RI Work Plan. IRM activities will be completed as per the May 2021 IRM Work Plan. Detail regarding the RI and IRM field activities are provided in these documents.

Anticipated RI ground intrusive activities include:

-Advancement of test pits to confirm the areal extent of the landfill mass; and

-Advancement of test borings for installation of monitoring wells and soil gas sampling points.

Anticipated IRM ground intrusive activities include:

-Clearing of vegetation;

-Removal and staging of surficial solid wastes;

-Localized grading;

-Localized utility excavation;

-Installation and removal of the decontamination pad; and

-Placement of filter fabric and cover material.

1.4 Potential Air Emissions Related to RI and IRM Activities

Ground intrusive RI and IRM activities (see Section 1.3) conducted at the Site have the potential to generate localized impacts to air quality. Non-intrusive activities that may contribute to air quality include equipment decontamination and vehicular traffic within the Site.

1.5 Air/Odor Emissions and Control Measures

Air emissions control and fugitive dust suppression techniques will be used during the intrusive activities identified in Section 1.3, as necessary, to limit the air/odor emissions from leaving the Site. Air monitoring for the specific purpose of protecting the community from Site activity impacts (and verification thereof) will take place during both ground intrusive and non-intrusive activities.

During intrusive and non-intrusive Site activities, odor and dust control measures will be implemented when necessary. The following dust and odor suppression measures may be used during these activities, depending upon specific circumstances and air monitoring results:

- Apply water on haul roads;
- Wetting equipment and excavation faces;
- Polyethylene sheeting (for covering soil stockpiles);
- Spraying water on buckets during remedial activities;
- Hauling materials in properly tarped or watertight containers;
- Restricting vehicle speeds to 10 mph; and
- Covering excavated areas and material after excavation activity ceases.

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.

Polyethylene sheeting will be used to control nuisance odors and VOC emissions, as needed. Also, dust emissions at the Site may be controlled by spraying water on exposed dry surface soil areas, using silt fences, and by covering soil stockpiles. Odor and dust

control measures will be implemented based on visual or olfactory observations, and the results of continuous airborne particulate and VOC monitoring.

2.0 AIR MONITORING PROCEDURES

2.1 General

Real-time air monitoring will be implemented at the Site for VOCs, and particulate matter less than 10 microns in diameter (PM-10). A Site boundary or work area boundary will be established for the purpose of air monitoring. Daily establishment of upwind and downwind monitoring stations will be determined through visual observation (wind vane, windsock, weather station or similar technique). Monitoring will occur at RI and IRM work areas, as referenced in Section 1.3. Both the airborne particulate and VOC monitoring units will be equipped with telemetry that notifies field personnel and project management in real-time of any exceedances to the established air quality limits, which in turn allows rapid assessment and correction of the situation. Baseline air sampling will take place prior to the beginning of work each day.

2.2 Sampling Location Selection

CAMP sampling activities will be determined daily based on visual observation of the wind direction and location of the workday's activities. The upwind location will be selected daily where both VOC and PM-10 will be monitored and recorded. This upwind location will be established at the start of the workday, each day before the start of work activities. Sampling activities will continue in a downwind direction throughout the day. If wind direction during the workday shifts greater than approximately +/-60 degrees from the original upwind wind vector, new upwind and downwind sampling locations will be established. Any location changes will be documented in the field logs.

Sampling locations may also be moved and reestablished during the work day if work at the Site changes locations.

2.3 VOCs Monitoring

As required by the NYSDOH guidance for community air monitoring during ground intrusive activities, VOCs will be monitored continuously during RI and IRM Site activities, with instrumentation that is equipped with electronic data-logging capabilities. A MiniRAE 3000 (or equivalent) will be used to conduct the real-time VOC monitoring. Detailed information on the MiniRAE 3000 is included in Attachment C. All 15-minute

readings will be recorded, as well as any instantaneous readings taken to facilitate activity decisions.

2.4 Particulate Matter Monitoring

As required by the NYSDOH guidance, real-time PM-10 will be monitored continuously during Site activities using instrumentation equipped with electronic data- logging capabilities. A MIE DataRAM (or equivalent) will be used to conduct the real-time PM-10 monitoring. Detailed information on the MIE DataRAM is provided in Attachment C. All 15-minute readings will be recorded, as well as any instantaneous readings taken to facilitate activity decisions.

Fugitive dust migration will be visually assessed during all work activities, and reasonable dust suppression techniques will be used during Site activities that may generate fugitive dust. These activities and their design controls were discussed previously in Section 1.5 of this plan.

2.5 Action Levels

The action levels provided below are to be used to initiate response actions, if necessary, based on real-time monitoring of PM-10 and VOCs.

2.5.1 Particulate Air Monitoring

Three (3) real-time particulate monitors capable of continuously measuring PM-10 and capable of integrating over a period of 15 minutes (or less) will be utilized. The instruments will be placed inside environmental enclosures at temporary monitoring stations based on the prevailing wind direction each workday, one (1) upwind and two (2) downwind of the designated work areas.

Each particulate monitor will be equipped with a telemetry unit capable of transmitting real-time particulate data to the field representative and project management. The particulate monitoring instruments will be capable of displaying and transmitting the short-term exposure limit (STEL) or 15-minute averaging period, which will be compared to the NYSDOH Generic Community Air Monitoring Plan action levels for particulates, as listed below. The instruments are programmed to alarm at preset action levels. At the

end of each day, the readings for each instrument will be downloaded to a computer and retained for future reference and reporting.

- 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 and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Work may continue with dust suppression techniques provided that the 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.

- If, after implementation of dust suppression techniques, the 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.

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 PM-10 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.

In the event of poor weather such as heavy rain, particulate monitoring will not be performed for protection of instrumentation. These weather conditions would limit the effectiveness of the sensitive monitoring equipment and likely suppress particulate generation. Work activities will be halted and modified if fugitive dust migration is visually observed for a sustained period of time during poor weather conditions.

When extreme wind conditions make dust control ineffective, as a last resort RI and IRM ground intrusive activities may need to be suspended.

2.5.2 Volatile Organic Compound Air Monitoring

C.T. Male will continuously monitor for VOCs at the downwind perimeter of the immediate work areas with a MiniRAE 3000 VOC monitor or equal, using a 11.7 eV lamp. The VOC monitor will be placed in the downwind environmental enclosures containing the particulate monitor. The downwind VOC monitors will be equipped with a telemetry unit capable of transmitting real-time VOC data to the field representative and project manager. The VOC monitoring instrument will be capable of displaying and transmitting the STEL or 15-minute averaging period, which will be compared to the NYSDOH Generic Community Air Monitoring Plan action levels for VOCs, as listed below. The downwind VOC STEL readings will be downloaded to a computer and retained for future reference and reporting.

Upwind VOC STEL concentrations will be measured at the start of the workday, and periodically thereafter, employing a handheld MiniRae 3000 VOC monitor with 11.7 eV lamp to evaluate the Site's background conditions. The upwind VOC STEL readings will be manually recorded for future reference and reporting.

- 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.
- 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.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown. Work activities will then be evaluated to determine

the source of the organic vapors and the engineering controls required to reduce/eliminate the organic vapors.

2.6 Meteorological Monitoring

Wind direction is meteorological information considered relevant for the RI and IRM activities and CAMP. Meteorological monitoring will be conducted periodically at the Site using a windsock, wind vane, or other appropriate equipment. Wind direction will be established at the start of each workday and may be re-established at any time during the workday if a significant shift in wind direction is noted, or Site activities are relocated on Site.

2.7 Instrument Calibration

Calibration of the VOC and PM-10 instrumentation will occur in accordance with each of the equipment manufacturer's calibration and quality assurance requirements. The VOC and PM-10 monitors will be calibrated at least daily, and calibrations will be recorded in the field activity logbook.

3.0 MONITORING SCHEDULE, DATA COLLECTION AND REPORTING

3.1 General

The proposed monitoring schedule and data collection and reporting requirements are discussed below.

3.2 Monitoring Schedule

Real-time VOC and PM-10 monitoring will be performed continuously throughout the RI and IRM ground intrusive activities identified in Section 1.3. VOC monitoring will also be performed during non-intrusive sampling and/or support-type activities. Wind direction will be determined at the start of each day and at any other appropriate time during remedial activities.

3.3 Data Collection and Reporting

Air monitoring data will be collected continuously from VOC and PM-10 monitors during intrusive Site activities by an electronic data-logging system. The data management software will be set up so that instantaneous observed readings would be recorded by the electronic data acquisition system and averaged over 15-minute time periods. The 15-minute readings and instantaneous readings taken to facilitate activity decisions will be recorded and archived for review by NYSDOH and NYSDEC personnel.

FIGURE 1

SITE LOCATION MAP

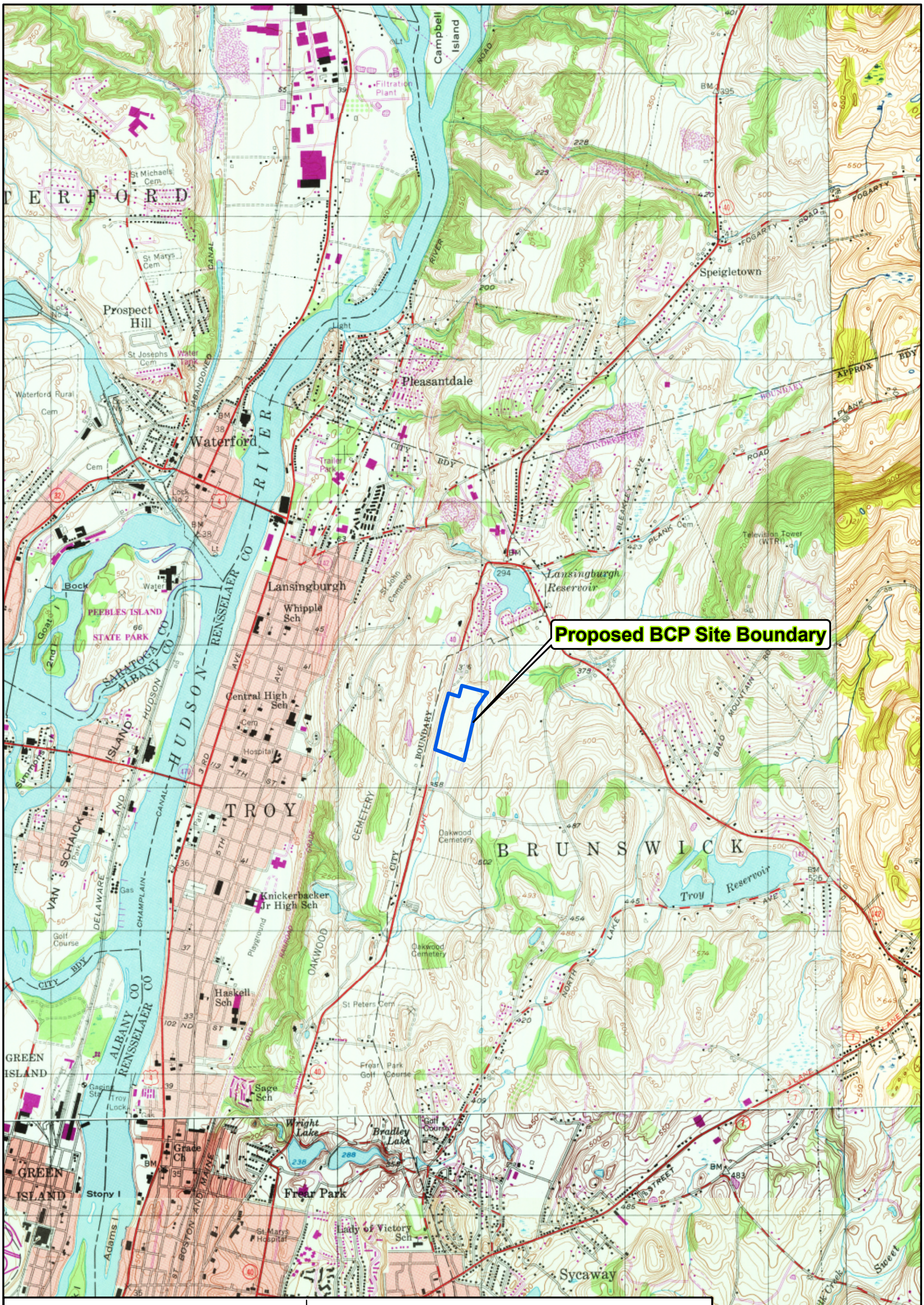

FIGURE 1
Old Troy Municipal Incinerator Site Location

Town of Brunswick — **Rensselaer County, NY**

0 1,000 2,000 4,000 FT

1 inch = 2,000 feet

Map Note: The locations and features depicted on this map are approximate and do not represent a field survey.

Project Number: 20.0611
Data Source: NYSGIS Clearinghouse
Projection: State Plane NAD83 NYE (Feet)
Date: October 29, 2020
File: OldTroyMunicipalIncineratorSite_LocationTopoMap_11x17.mxd
GIS: D Landreville

Legend
Proposed BCP Site Boundary

C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

FIGURE 1A

TAX MAP

REAL PROPERTY MAP

THE USE OF THIS MAP IS FOR REAL PROPERTY TAX ADMINISTRATION PURPOSES ONLY

PREPARED FOR	ORIGINALLY PREPARED BY	ORIGINALLY CONVERTED TO DIGITAL FORMAT BY
RENSSELAER COUNTY LEGISLATURE	COLE – LAYER – TRUMBLE CO. INC. WEILER MAPPING, INC., A SEWALL DIVISION	HORSEHEADS, NEW YORK
TROY, NEW YORK	DAYTON, OHIO	JANUARY, 2003

SPECIAL DISTRICTS

TYPE	SYMBOL	CODE	NAME
FIRE	— F —	FD004 FD006	CTR. BRUNSWICK FIRE SPEIGELTOWN FIRE
LIGHT	— LT —		
SCHOOL	— SCH —	381701	LANSINGBURG C.S.D.
SEWER	— S —	SD001 SD024	COUNTY SEWER DISTRICT NO. 1 BRUNSWICK SEWER DISTRICT NO. 10
WATER	— W —	WD072	BRUNSWICK WATER DISTRICT NO. 16

LEGEND

NAD83	PROPERTY LINE	AREA (FROM DEED) 1.50Ac	INTERSTATE HIGHWAY 90
NAD27	WATER	AREA (CALCULATED) 1.50Ac(c)	U.S. HIGHWAY 9
STATE OR COUNTY LINE	LAND HOOK	DIMENSION (FROM DEED) 16.5	NEW YORK STATE HIGHWAY 2
CITY,TOWN OR VILLAGE LINE	PATENT OR REALTY LOT LINE	DIMENSION (SCALED) 66(s)	COUNTY HIGHWAY 108
ROAD OR RAILROAD R/W	PATENT OR REALTY LOT NO. 36 OR (1)	COORDINATE–LOCATOR NO.(E800,000–N8000,000)	BLOCK LIMIT LINE
EASEMENT R/W LINE	SECTION–BLOCK–LOT–NO. 001.00– 1 –100		

DATE OF MAP: 08-24-76

DATE OF REVISION: 12-19-19

SCALE: 1"=400'

INDEX TO ADJOINING MAP SECTIONS

		071 00
	080 00	081 00
	090 00	091 00

FIGURE 1A
TOWN OF BRUNSWICK

RENSSELAER COUNTY, NEW YORK

E 709,000–N 1,433,000 MIDDLE COORDINATE LOCATOR NUMBER

NAD 83 NY STATE PLANE COORDINATE SYSTEM, EAST ZONE, US FEET

080.00 SECTION NUMBER

FIGURE 2

SITE FEATURES MAP

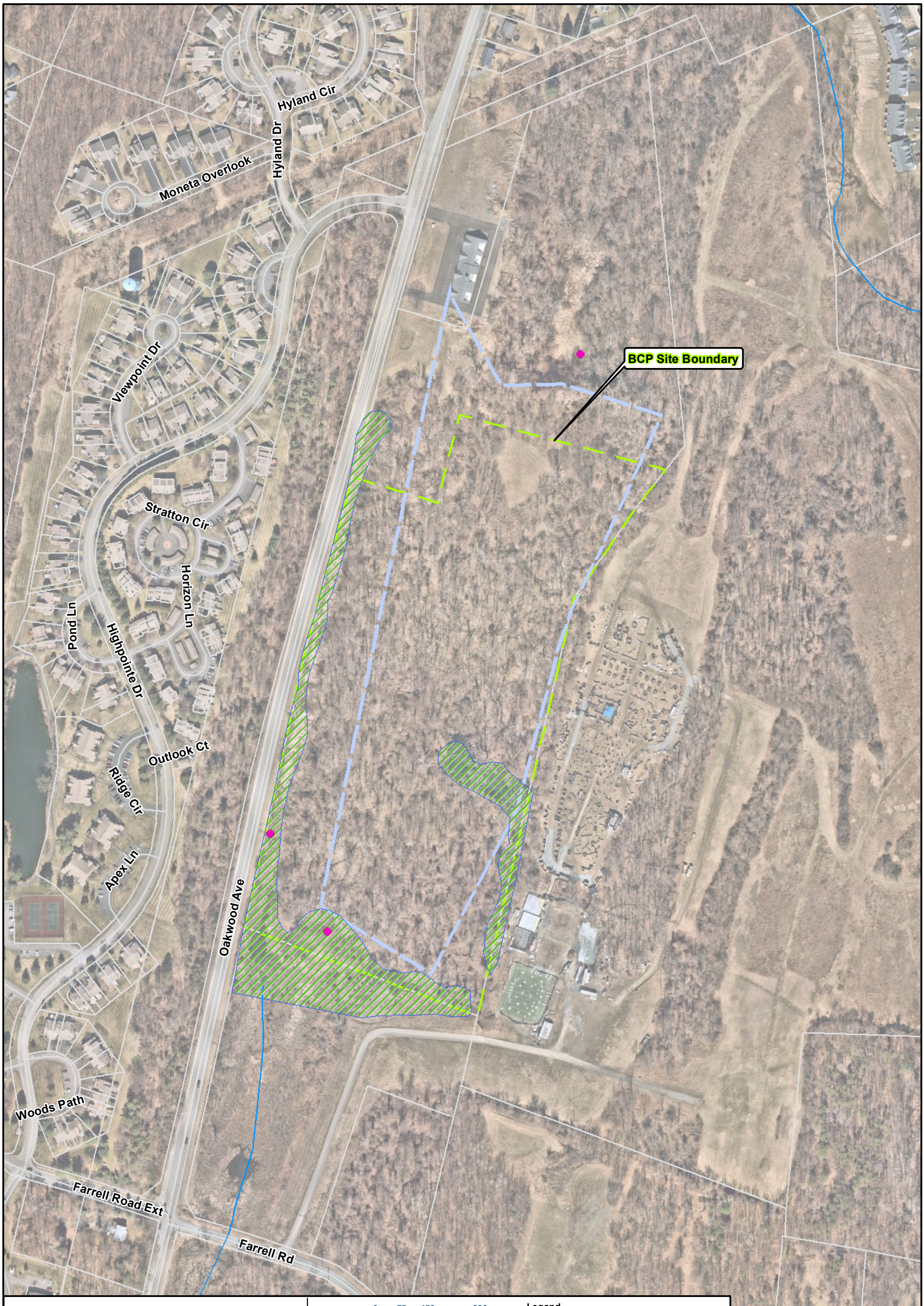

Figure 2: Site Features Map
Old Troy Municipal Incinerator Site

Town of Brunswick — **Rensselaer County, NY**

C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

N W E S

0 75 150 300 FT

1 inch = 250 feet

Map Note: The locations and features depicted on this map are approximate and do not represent a field survey.

Project Number: 20.0611
Data Source: NYSGIS Clearinghouse
Projection: State Plane NAD83 NYE (Feet)
Date: April 21, 2021
File: OTMI_SiteFeaturesMapForAchtyl_11x17.mxd
GIS: D Landreville

Legend
- Leachate Seep Locations
- Delineated Wetlands
- Streams
- Approximate Landfill Boundary
- BCP Site Boundary
- Tax Parcels
- Roads

ATTACHMENT A

NYSDOH GENERIC COMMUNITY ACTION MONITORING PLAN

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

ATTACHMENT B

NYSDEC DER-10, FUGITIVE DUST SUPRESSION and PARTICULATE MONITORING PROGRAMS at INACTIVE HAZARDOUS WASTE SITES

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.

ATTACHMENT C

MONITORING EQUIPMENT SPECIFICATIONS

MiniRAE 3000

Portable Handheld VOC Monitor

The MiniRAE 3000 is the most advanced handheld volatile organic compound (VOC) monitor on the market. Its photoionization detector's (PID) extended range of **0 to 15,000 ppm** makes it an ideal instrument for applications from industrial hygiene to leak detection and HazMat.

The **RF modem allows real-time data transmissions** with a base controller located up to 500 feet away from the MiniRAE 3000 (or two miles with optional RAELink3 portable modem). A personal computer can be used as the base station for a MiniRAE 3000 system. The standard ProRAE Remote software is capable of monitoring the input of up to 64 remotely located monitors, including MiniRAE 3000, AreaRAE, etc.

Wireless

AutoRAE Compatible

Key Features

- **Proven PID technology**
  The patented sensor provides the following unique features:
  - 3-second response time
  - Extended range up to 15,000 ppm with improved linearity
  - Humidity compensation with integral humidity and temperature sensors
- **Real-time wireless** data transmission with built-in RF modem or Bluetooth
- **Designed for simple service** Easy access to lamp and sensor in seconds without tools
- **Big graphic display** for easy overview of gas type, Correction Factor and concentration
- **Field-interchangeable battery pack** replaced in seconds without tools
- **Integrated flashlight** for better view in dark conditions
- **User-friendly screens, including dataplot chart view**
- **Integrated RAE Systems Correction Factors list for more than 200 compounds** to measure more chemicals than any other PID
- **Multi-language support** with 12 languages encoded
- **Rugged housing** withstands use in harsh environments
  - IP67 waterproof design for easy cleaning and decontamination in water
  - Strong protective removable rubber boot

Additional Advantages

- View real-time sensor data and alarm status at headquarters or command center
- Automatic lamp type recognition
- Duty-cycling™ lamp and sensor auto-cleaning technology
- Tough, flexible inlet Flexi-Probe™
- 3 large keys operable with 3 layers of gloves
- Strong, built-in sample pump draws up to 100 feet (30m) horizontally or vertically
- Loud, 95dB audible alarm
- Bright red flashing visual alarm
- Interchangeable drop-In lithium-ion and alkaline battery packs
- Charging cradle doubles as an external battery charger
- Compatible with AutoRAE™ calibration station
- ProRAE Remote software simultaneously controls and displays readings for up to 64 remote detectors
- License-free, ISM band RF transmission with communication range up to 500 feet (2 miles with optional RAELink3 modem)
- Optional RAELink3 modem provides GPS capability to track and display readings from remote detectors and provide up to 2 miles' long-distance transmission
- Datalogging with up to 6 months of data at one-minute intervals
- 3-year 10.6eV lamp warranty

ver1_05.07

MiniRAE 3000

Specifications*

Detector Specifications

Size	10" L x 3.0" W x 2.5" H (25.5 cm x 7.6 cm x 6.4 cm)
Weight	26 oz (738 g)
Sensors	Photoionization sensor with standard 10.6 eV or optional 9.8 eV or 11.7 eV lamps
Battery	• Rechargeable, external field-replaceable Lithium-Ion battery pack • Alkaline battery adapter
Operating Hours	16 hours of operation (12 hours with alkaline battery)
Display Graphic	4 lines, 28 x 43 mm, with LED backlight for enhanced display readability
Keypad	1 operation and 2 programming keys, 1 flashlight on/off
Direct Readout	Instantaneous reading • VOCs as ppm by volume • High values • STEL and TWA • Battery and shutdown voltage • Date, time, temperature
Alarms	95 dB (at 30 cm) buzzer and flashing red LED to indicate exceeded preset limits • High: 3 beeps and flashes per second • Low: 2 beeps and flashes per second • STEL and TWA: 1 beep and flash per second • Alarms latching with manual override or automatic reset • Additional diagnostic alarm and display message for low battery and pump stall
EMI/RFI	Highly resistant to EMI/RFI Compliant with EMC Directive 89/336/EEC
IP Rating	• IP67 unit off and without flexible probe • IP65 unit running
Datalogging	Standard 6 months at one-minute intervals
Calibration	Two-point or three-point calibration for zero and span. Calibration memory for 8 calibration gases, alarm limits, span values and calibration dates
Sampling Pump	• Internal, integrated flow rate at 400 cc/mn • Sample from 100' (30m) horizontally and vertically
Low Flow Alarm	• Auto pump shutoff at low-flow condition
Communication	• Download data and upload instrument set-up from PC through charging cradle or optional Bluetooth™ • Wireless data transmission through built-in RF modem
Frequency	902 to 928 MHz (license-free), 2.400 to 2.4835 GHz (license-free), 433 MHz, 869 MHz
RF Range	Up to 500' (900 MHz, 433 Mhz, 869 Mhz), extendable with RAELink3 Repeater to 2 miles
Hazard Area Approval	• **US and Canada:** UL, cUL, Classified as Intrinsically Safe for use in Class I, Division I Groups A, B, C, D • **Europe:** ATEX II 1G EEx ia IIC T4 (pending) • **IECEx:** II 1G EEx ia IIC T4 (pending)
Temperature	-4° to 113° F (-20° to 50° C)
Humidity	0% to 95% relative humidity (non-condensing)
Attachments	Durable bright yellow rubber boot with belt clip
Warranty	Lifetime on non-consumable components (per RAE Systems Standard Warranty), 3-year warranty for 10.6 eV lamp, 1 year for pump and battery

*Specifications are subject to change

Sensor Specifications

Gas Monitor	Range	Resolution	Response Time T90
VOCs	0 to 999.9 ppm 1000 to 15,000 ppm	0.1 ppm 1 ppm	< 3 s < 3 s

Monitor only includes:

- MiniRAE 3000 Monitor, Model PGM-7320
- Wireless communication module built in, as specified
- Datalogging with ProRAE Studio Package for Windows™ 95, 98, 2000, NT, ME & XP
- Charging/download adapter
- RAE UV lamp, as specified
- Flex-I-Probe™
- External filter
- Rubber boot with belt clip and straps
- Alkaline battery adapter
- Lamp-cleaning kit
- Tool kit
- Lithium-ion (Li-ion) battery with universal AC/DC charger and international plug kit
- Operation CD-ROM
- Operation & Maintenance manual
- Soft leather case

Monitor with accessories kit adds:

- Hard transport case with pre-cut foam padding
- Charging/download cradle
- 5 Porous metal filters and O-rings
- Organic vapor zeroing kit
- Gas outlet port adapter and tubing

Optional calibration kit adds:

- 100 ppm isobutylene calibration gas, 34L
- Calibration regulator and flow controller

Optional Guaranteed Cost of Ownership Program:

- 4-year repair and replacement guarantee
- Annual maintenance service

DISTRIBUTED BY:

ver1_05.07

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San Jose, CA 95134 USA
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China 8610 58858788
Asia +852 2669 0828

www.raesystems.com

DataRAM 4™ - Model DR-4000

Portable particle sizing aerosol monitor/data logger Dual Wavelength Nephelometer

Expandable to a complete characterization system

- Aerodynamic particle size separators measure specific size groups such as the thoracic, respirable, PM10, PM2.5, and PM1.0 fractions.
- An omnidirectional sampling inlet and an in-line mist and fog elimination heater are available for ambient air monitoring.
- An isokinetic sampling probe/nozzle kit enables duct / stack monitoring.

Real-time airborne particulate concentration and size measurements

The DataRAM 4™ (Model DR-4000) continuously monitors the real-time concentration and median particle size of airborne dust, smoke, mist, and fumes. In addition, air temperature and humidity are displayed. With appropriate particle discriminators, it provides measurements correlated with PM10, PM2.5, PM1.0, and respirable fractions. It's patented two-wavelength particle detection system provides the volume median particle diameter of the sampled aerosol, over a concentration range up to 400 mg/m^3. Unlike typical particle counting devices, the DR-4000 is totally immune to particle coincidence errors, even at the highest concentrations. Volume median particle sizes down to 0.05 µm can be measured by this unique spectral nephelometric technique.

Monitors mass concentrations of fine particulate (PM 2.5)

The DR-4000 monitors the concentrations of fine particulates in ambient air by a combination of aerodynamic size preselection, two-wavelength nephelometry, and concurrent sensing/ correction for relative humidity. This patented technique provides a continuous measurement of PM2.5, independent of particle size and moisture - *without heating, diffusion drying, or denuding the sample stream*.

Measure scattering, angstrom coefficients, and visual range

DR-4000 measures the scattering coefficient at two wavelengths (in units of inverse megameters) and computes the coefficient at the reference wavelength of 550 nanometers, as well as the angstrom exponent (a measure of atmospheric fine particle size). Based on the 550 nm scattering coefficient, the instrument then calculates the visual range in kilometers.

Self-calibrating, internal filter is designed for use in the field

Designed for fast, easy field calibration, a 37 mm membrane filter (provided) can be used in place of the zeroing HEPA filter cartridge for gravimetric calibration and/or chemical analysis of collected particulates. The calibration process takes only seconds to perform, and unlike similar instruments, field calibration does not require additional equipment. Only single point gravimetric calibration is needed.

Complete digital communications

The DR-4000 has both RS232 and RS485 data ports for two-way digital communications. Special Windows™ compatible software (provided with the instrument) facilitates data transfer either in real-time or from the logged memory. All operational and programming functions can be controlled from a remote location through the RS485 communications port. Sampling start and stop as well as data transfer can be controlled via modem or other digital transmission paths.

DataRAM 4™ - Model DR-4000

Portable particle sizing aerosol monitor/data logger
Dual Wavelength Nephelometer

Specifications

Concentration measurement range (auto-ranging):
Referred to gravimetric reference calibration (NIST traceable)
with SAE Fine test dust (mmd = 2 to 3 µm, σ_g = 2.5, as aerosolized)
0.0001 to 400 mg/m^3

Precision/repeatability (2-sigma):
At 25˚C
For single-wavelength concentration sensing
± 1% of reading or ± 0.001 mg/m^3, whichever is greater (1-second averaging)
± 0.3% of reading or ± 0.0003 mg/m^3, whichever is greater (10-second averaging)

Accuracy:
Referred to gravimetric reference calibration (NIST traceable)
with SAE Fine test dust (mmd = 2 to 3 µm, σ_g = 2.5, as aerosolized)
± 2% of reading ± precision

Resolution:
0.1% of reading or 0.0001 mg/m^3, whichever is greater

Scattering coefficient range:
10^{-7} to 0.4 m^{-1} (resolution: 3 significant digits, maximum)

Visual range (@λ= 550 nm):
0.001 to 337 km (resolution: 3 significant digits, maximum)

Ångström coefficient measurement range:
0.0 to 4.0

Particle sizing range (log-normal, σ_g = 2.0, m = 1.50):
0.05 to 4 µm

Particle size range of maximum response (concentration measurements):
0.08 to 10 µm

Temperature measurement range:
5˚F to 140˚F (-15˚C to 60˚C); accuracy: 0.05˚C

Relative humidity measurement range (@ 25˚F):
0 to 100% (accuracy: 2%, noncondensing)

Sampling flow rate range (user selectable):
1.0 to 3.0 liters/min.
(accuracy: 0.05 liters/min., adjustability: 0.1 liters/min.)

Measurement/display integration time range *(user selectable)*:
1 to 60 sec. (selectable in 1-sec. steps)

Measurement/display update frequency:
1 per sec.

HEPA filter cartridge replacement frequency (typical):
Less than 1 per 5 yrs (@ ‹ 1 mg/m^3)

Alarm level range *(user selectable)*:
Selectable over entire measurement range

Data logging averaging periods *(user selectable)*:
1 sec. to 24 hrs (selectable in 1-sec. increments)

Data logging memory capacity:
50,000 data points in up to 99 tags (data sets)

Programmable zeroing periods *(user selectable)*:
1 to 168 hrs (selectable in 1-hr increments; if enabled, logging period must be more than 10 min.)

Elapsed time readout range:
1 sec. to 100,000 hrs (over 11 yrs), in sec., min., and hrs

Digital communications:
RS232/RS485: full duplex, 9600 baud, software-controlled, device-filtered

Computer requirements:
IBM-compatible PC, Windows™ 95 or higher; 8 MB memory or more

Analog outputs *(user selectable)*:
0 to 5 V and 4 to 20 mA, with selectable full scale ranges between 0.1 and 400 mg/m^3

Power:
- Internal battery: rechargeable, sealed lead-acid, 6.5 Ahr, 6 V, 20-hr run time between charges (typical)
- AC line: universal voltage charger/power supply (included), 100-250 V, 50-60 Hz (CE marked)
- Optional solar power system (Model DR-SOL)

Alarm outputs:
- Alarm switch: 30 V (off, open), 2.5 A (on, closed)
- Alarm signal: 0 V (off), 5 V (on) (1 mA maximum load current)
- Audio alarm (back panel): More than 65 dB @ 1 m

Operating environment:
14˚F to 122˚F (-10˚C to 50˚C); 10 to 95% RH, noncondensing

Storage environment:
- 4˚F to 158˚F (-20˚C to 70˚C)

Dimensions:
5.28 in. (134 mm) H x 7.25 in. (184 mm) W x 13.63 in. (346 mm) D

Weight:
11.7 lbs (5.3 kg)

Safety approvals and certifications:
The DataRAM 4 complies with US FCC rules (Part 15) and has received CE certification.

Standard accessories included:
- Universal voltage battery charger/power supply
- Standard HEPA filter cartridge
- Analytical filter holder
- PC communications software disk
- Digital output cable
- Carrying case and instruction manual

500 Technology Court Smyrna, GA 30082
800-241-6898 (toll free in USA) ■ 770-319-9999 (outside USA) ■ 770-319-0336 (fax)
www.thermoandersen.com ■ sales@thermoandersen.com

Specifications

Concentration measurement range (auto-ranging):[1]
0.0001 to 400 mg/m^3

Precision/repeatability (2-sigma):[2,3]
± 1% of reading or ±0.001 mg/m^3, whichever is greater (1-second averaging)
± 0.3% of reading or ± 0.0003 mg/m^3, whichever is greater (10-second averaging)

Accuracy:[1]
± 2% of reading ± precision

Resolution:
0.1% of reading or 0.0001 mg/m^3, whichever is greater

Scattering coefficient range:
10^{-7} to 0.4 m^{-1} (resolution: 3 significant digits, maximum)

Visual range (@λ=550 nm):
0.001 to 337 km (resolution: 3 significant digits, maximum)

Ångström coefficient measurement range:
0.0 to 4.0

Particle sizing range (log-normal, σ_g = 2.0, m = 1.50):
0.05 to 10 µm

Particle size range of maximum response (concentration measurements):
0.08 to 10 µm

Temperature measurement range:
-15˚ to 60˚C (accuracy: 0.05˚C)

Relative humidity measurement range (@ 25˚C):
0 to 100% (accuracy: 2%, noncondensing)

Sampling flow rate range:[4]
1.0 to 3.0 liters/minute
(accuracy: 0.05 liters/minute, adjustability: 0.1 liters/minute)

Measurement/display integration time range:[4]
1 to 60 seconds (selectable in 1-second steps)

Measurement/display update frequency:
1 per second

HEPA filter cartridge replacement frequency (typical):
Less than 1 per 5 years (@ < 1 mg/m^3)

Alarm level range:[4]
Selectable over entire measurement range

Data logging averaging periods:[4]
1 second to 24 hours (selectable in 1-second increments)

Data logging memory capacity:
50,000 data points in up to 99 tags (data groups)

Programmable zeroing periods:[4]
1 to 168 hours (selectable in 1-hour increments;
if enabled, logging period must be more than 10 minutes)

Elapsed time readout range:
1 second to 100,000 hours (over 11 years),
in seconds, minutes, and hours

DR4 2.5M / 5M / 75M / 10M 9 / 00 Printed in USA

Digital communications:
RS232/RS485: full duplex, 4800 baud, software-controlled, device-filtered

Computer requirements:
IBM-compatible PC, 486 or higher; Windows™ 95 or higher; 8 MB memory or more

Analog outputs:[4]
0 to 5 V and 4 to 20 mA, with selectable full scale ranges between 0.1 and 400 mg/m^3

Power:
- Internal battery: rechargeable, sealed lead-acid, 6.5 Ahr, 6 V, 20-hour run time between charges (typical)
- AC line: universal voltage charger/power supply (included), 100-250 V, 50-60 Hz (CE marked)
- Optional solar power system (Model DR-SOL)

Alarm outputs:
- Alarm switch: 30 V (off, open), 2.5 A (on, closed)
- Alarm signal: 0 V (off), 5 V (on) (1 mA maximum load current)
- Audio alarm (back panel): More than 65 dB @ 1 m

Operating environment:
-10˚ to 50˚C (14˚ to 122˚F); 10 to 95% RH, noncondensing

Storage environment:
-20˚ to 70˚C (-4˚ to 158˚F)

Dimensions:
134 mm (5.28 in) H x 184 mm (7.25 in) W x 346 mm (13.63 in) D

Weight:
5.3 kg (11.7 lbs)

Safety approvals and certifications:
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Standard accessories included:
- Universal voltage battery charger/power supply
- Standard HEPA filter cartridge
- Analytical filter holder
- PC communications software disk
- Digital output cable
- Carrying case and instruction manual

[1] Referred to gravimetric reference calibration (NIST traceable) with SAE Fine test dust (mmd = 2 to 3 µm, σ_g = 2.5, as aerosolized)
[2] At 25˚C
[3] For single-wavelength concentration sensing
[4] User selectable

Monitoring Instruments for the Environment, Inc.
7 Oak Park ■ Bedford, Massachusetts 01730
Toll-Free: 1-888-643-4968 ■ TEL: (781) 275-1919
FAX: (781) 275-2121 ■ www.mieinc.com

MODEL DR-4000
Dual Wavelength Nephelometer

Ambient Air Monitoring

$PM_{2.5}$ Monitoring

Remediation Site Perimeter Monitoring/Alarming

Real-Time Fine Particle Size Determination

Indoor Air Quality Monitoring

Workplace and Plant Monitoring

Source Monitoring

Atmospheric Scattering and Visibility Monitoring

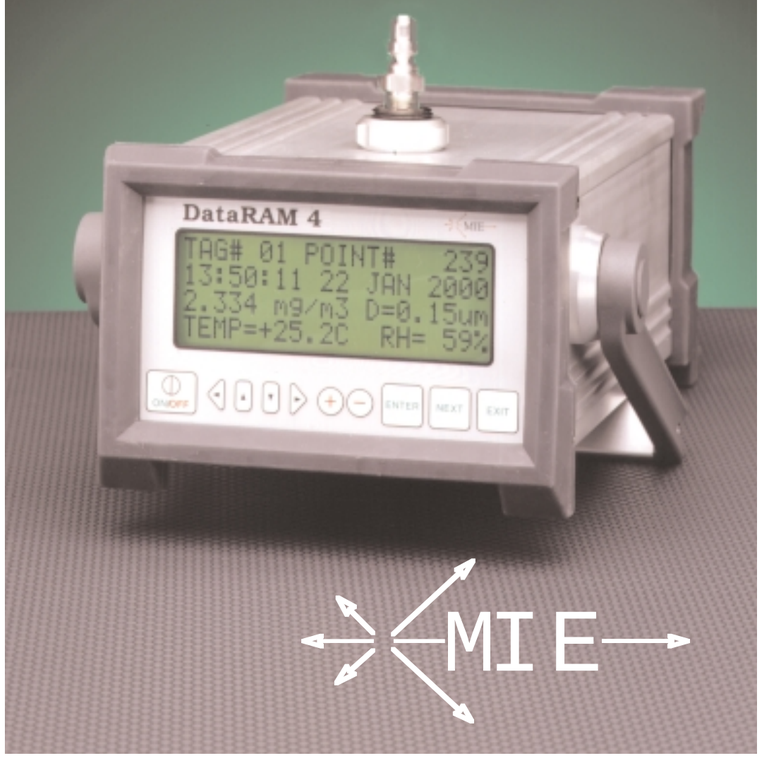
Measurement of Ångström Coefficient

Mobile Monitoring

Toxicology and Aerosol Research

DataRAM 4™

Portable Particle Sizing Aerosol Monitor/Data Logger



Real-Time Particulate Monitoring and Particle Size Selective Measurements

Measures Airborne Particulate Concentrations and Size in Real-Time

The DataRAM 4™ provides direct and continuously updated readouts of concentrations of airborne dust, smoke, mist, and fumes as well as the median particle size. In addition, both air temperature and humidity are displayed. All data can be logged in the integral, large-capacity, non-volatile memory. Up to 50,000 data blocks can be stored in up to 99 tagged groups.

An on-board audible alarm as well as switched and active alarm outputs are triggered whenever concentrations exceed a user-selected level.

With appropriate aerodynamic particle discriminators, the DataRAM 4 provides measurements correlated with PM_{10}, $PM_{2.5}$, $PM_{1.0}$, and respirable fractions.

Determines Particle Median Size Regardless of Concentration

DataRAM 4's patented two-wavelength particle detection system provides the volume median particle diameter of the sampled aerosol, over the remarkably wide concentration range of 1 microgram per cubic meter to 400 milligrams per cubic meter.

Unlike typical particle counting devices, the DataRAM 4 is totally immune to particle coincidence errors, even at the highest concentrations. Volume median particle sizes down to 0.05 µm can be measured by this unique spectral nephelometric technique.

Monitors Mass Concentrations of Fine Particulates ($PM_{2.5}$)

The DataRAM 4 monitors in real-time the concentrations of fine particulates in ambient air by a combination of aerodynamic size preselection, two-wavelength nephelometry, and concurrent sensing/correction for relative humidity. This patented technique provides a continuous measurement of $PM_{2.5}$, independent of particle size and moisture, without altering the sample stream (i.e., without heating, diffusion drying, denuding, etc.)

DataRAM 4 with Cyclone Precollector for respirable particle measurements

Special software (Windows™ compatible) provided with the instrument allows data transfer either in real-time or from the DataRAM 4's logging memory for tabular and/or graphic computer presentation. All operational and programming functions of the DataRAM 4 can be controlled from a remote location through the RS485 communications port. Sampling start and stop as well as data transfer can be controlled via modem or other digital transmission paths.

Analog Signal and Alarm Outputs

For added versatility, the DataRAM 4 provides two separate analog signal outputs, updated every second: a voltage output (0-5 V) and a current output (4-20 mA), both programmable over the instrument's full measurement range Two alarm outputs (and an audible horn) are also included: voltage step (0 to 30 VDC) and switching output (2.5 A maximum). The alarm level is also user programmable over the entire measurement range of the instrument.

Measures Scattering and Ångström Coefficients, and Visual Range

In addition to measuring the mass concentration of airborne particulates, the DataRAM 4 measures the scattering coefficient at two wavelengths (in units of inverse megameters) and computes the coefficient at the reference wavelength of 550 nanometers, as well as the Ångström exponent (a measure of atmospheric fine particle size). Based on the 550 nm scattering coefficient, the instrument then calculates the visual range (in kilometers).

Complete Digital Communications

The DataRAM 4 has both RS232 and RS485 data ports for two-way digital communications with personal computers.

Detailed Diagnostic Information

The DataRAM 4 furnishes complete diagnostic data on the functional condition of all its critical elements. Examples include: condition of each of the two sensing sources, optical background level, scattering detector condition, sampling air flow control, internal battery charge status, charging current, etc. Any deviation from normal conditions is flagged on screen.

DataRAM 4 with Metal Cyclone for particle size separation

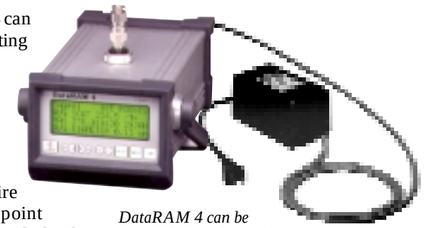
Self-Purging, Automatic Zeroing, and Clean Air Protection of Optics

The DataRAM 4's field-proven flow configuration includes a large-capacity HEPA filter cartridge directly downstream of the photometric sensing stage. Typically replaced every two years, this filter provides particle-free air that is partially recirculated over all critical optical surfaces to ensure their cleanliness.

For either manual or automatic zeroing, an electronically controlled solenoid valve diverts the entire filtered air stream through the optical sensing chamber to achieve "zero" air without the need for an external filter.

Self-Calibrating Internal Filter

A 37-mm membrane filter (for which a special holder/adapter is provided) can be used in place of the zeroing HEPA filter cartridge for gravimetric calibration and/or chemical analysis of collected particulates. The DataRAM 4 can be easily calibrated by readjusting the calibration constant to agree with gravimetric measurements obtained from the on-board filter. Because the photometric response of the instrument is exactly linear over its entire operating range, only single point gravimetric calibration is needed. The second point of the straight response line is the zero concentration obtained by self-purging.



DataRAM 4 can be powered by a rechargeable internal battery or an external power source

Large Character Screen, Menu-Driven Displays, and Scrolling of Logged Data

A large (48-cm^2 active area) LCD screen with 4 lines of alphanumeric text provides highly visible readouts. The screen has automatic backlighting whenever the DataRAM 4 is powered from the AC line current (through its power supply/charger). The instrument provides users with a variety of self-explanatory informational screens. The main measurement screen, for example, displays real-time and date, mass concentration, time-averaged concentration from the start of the run, and elapsed run time. Logged data can be displayed/scrolled during or after a measurement run, and transferred to a PC.

Several Power Options

The DataRAM 4's large-capacity rechargeable battery (long-lived, "memory"-free) provides noninterruptible power to the unit. A charger/power supply is provided for continuous long-term operation. For portable monitoring, the instrument is designed to run without external power for 20 hours. An optional solar power system is available for remote installations.

Expandable To A Complete Particulates Characterization System

Available accessories extend the capabilities of the DataRAM 4 for a wide range of monitoring/particle sizing applications. Aerodynamic particle size separators (cyclones and jet-to-plate impactors) measure specific size groups such as the thoracic, respirable, PM_{10}, $PM_{2.5}$, and $PM_{1.0}$ fractions. An omni-directional sampling inlet and an in-line heater (for mist/fog elimination) are available for ambient air monitoring. An isokinetic sampling probe/nozzle kit enables duct/stack monitoring.

Additional accessories will be available for the DataRAM 4 in the near future, providing a complete systems capability with unparalleled performance flexibility. These accessories/capabilities will include: a patented turntable aerodynamic particle size separator for aerodynamic particle size distribution analysis, and a condensation/nucleation module for ultrafine particle monitoring.

DataRAM 4 with ambient monitoring accessories

ATTACHMENT B

C.T. MALE – Safety Plan for COVID-19

Dated May 2020, revised November 2020

C.T. MALE ASSOCIATES ENGINEERING,
SURVEYING, ARCHITECTURE,
LANDSCAPE ARCHITECTURE &
GEOLOGY, D.P.C

COVID-19 SAFETY PLAN

May 26, 2020

Revisions to Safety Plan – Date / Reason	
11/19/20, update appendices, guidelines	

Contents

INTRODUCTION

Coronavirus or "COVID-19," is a respiratory disease caused by a novel coronavirus not previously seen in humans. C.T. Male has developed COVID-19 exposure prevention, preparedness, and response to be implemented, to the extent feasible and appropriate, throughout the company and at job sites. C.T. Male will continue to monitor the related guidance provided by the U.S. Center for Disease Control and Prevention ("CDC"), Occupational Safety and Health Administration ("OSHA"), New York State and other state and public agencies as it is made available.

This Plan is based on information from the CDC, OSHA, and NYS at the time of its development and is subject to change based on further information provided by the CDC, OSHA, NYS and other public officials. The Company may also amend this Plan based on operational needs.

C.T. Male has a NYS Business Reopening plan as required by NYS executive orders and guidance.

C.T. Male has appointed Nancy Garry, PE, CSP as the COVID-19 Safety Officer (CSO) to monitor and implement recommended safety practices regarding the COVID-19 virus. As Corporate Safety Manager, Ms. Garry's duties are to implement this HASP and other safety programs throughout the company. With a professional license as a Certified Safety Professional (CSP), the Corporate Safety Manager has the experience for the COVID-19 response.

RESPONSIBILITIES

Corporate Safety Manager

- Ensure the guidelines and recommendations of CDC, OSHA, NYS and other public agencies, with respect to COVID-19, are followed.
- Authorized to stop or modify activities to ensure conformance with recommendations and guidelines for safety.
- Prepare COVID-19 safety plans, with division and project managers, for project sites.

Division Managers

- Ensure project managers, supervisors, and staff abide by the plan.
- Notify PMs and supervisors of new notifications in relation to client procedures or safety plans.

Project Managers and Supervisors

- Ensure the COVID-19 Safety Plan is properly followed at project sites.
- Ensure employees are completing the C.T. Male mandatory pre-screening process, and other client/agency requirements.
- Notify employees of any client related COVID-19 procedures that will need to be followed before and at the project site.
- Authorized, through consultation with the Corporate Safety Manager or division manager, to halt all activities that do not adhere to the COVID-19 safety practices.

Employees

- Complete the daily health screenings.
- Know and follow the procedures and tasks outlined in the COVID-19 Safety Plan.
- Prior to working at a project site, review scope of work with PM or supervisor and review, if applicable, additional client safety or COVID-19 guidelines or plans for the project.
- Immediately report any injury, job related illness, spill or damage to property or vehicle to immediate supervisor or project manager, and the Corporate Safety Manager.

Subcontractor/Vendors

- To adhere to CDC, NYS, County, OSHA COVID-19 Guidelines (e.g., Social Distancing, hand washing/sanitizing, etc.).
- Shall submit a COVID-19 Safety Plan when requested. Subcontractor's COVID-19 Safety Plan shall comply with above mentioned COVID-19 Guidelines and the Contractor COVID-19 Safety Plan at a minimum. Where a Subcontractor's COVID-19 Safety Plan is not submitted, Subcontractor shall comply with the Contractor COVID-19 Safety Plan.
- Employees shall be screened for potential COVID-19 symptoms at the beginning of each day, on-site.
- To report suspected and/or confirmed cases to the C.T. Male project manager.

Designated Representative

- Responsible for compliance with the COVID-19 Safety Plan.
- Identify procedure which they will implement to screen employees for potential COVID-19 exposure.

DAILY HEALTH SCREENINGS

In response to guidance issued by NYS DOH "Interim guidance for Construction Activities during the COVID-19 Public Health Emergency", C.T. Male will conduct mandatory daily health screenings before an employee reports to the out of office jobsite. The health screenings will be conducted electronically, every morning, with all staff. At that time each employee will be asked the questions that are required by NYS DOH. If an employee has an answer other than "No" to these questions, they will have to contact, or they will be contacted by, C.T. Male Director of Human Resources to discuss next steps.

C.T. Male employees will notify C.T. Male Director of Human Resources immediately if they are experiencing illness such as fever, cough, shortness of breath or difficulty breathing, chills, repeated shaking with chills, muscle aches, sore throat, loss of taste or smell, or runny/stuffy nose. Refer to CDC guidance on "Symptoms of Coronavirus (COVID-19)" and "How to protect yourself and others" (Appendix A). After notification to their supervisor, a determination will be made as to the ability of the person to be at the Sites.

During the workday, project managers and supervisors will assess employees and may ask the same questions again if they feel it is warranted.

Job Site Visitors

Visitors to the job site, that are working for C.T. Male, including an office trailer, will be limited to only those necessary for the work.

Visitors must pre-screen in advance of arriving on the job site. Jobsites will have signage outlining the requirements of the pre-screening questions. If the visitor answers "yes" to any of the following questions, he/she should not be permitted to access the jobsite.

Pre-screening Questionnaire

Employers should ask the following questions to all employees, visitors and vendors prior to allowing access to the workplace and/or jobsite:

1. Have you knowingly been in close or proximate contact in the past 14 days with anyone who has tested positive for COVID-19 or who has or had symptoms of COVID-19? Yes or No

2. Have you tested positive for COVID-19 in the past 14 days? Yes or No

3. Do you currently have a fever (greater than 100.4 F or 38.0 C)? Yes or No

4. Have you experienced any symptoms of COVID-19 in the past 14 days. (symptoms of lower respiratory illness such as cough, shortness of breath, or difficulty breathing, loss of sense of teat or smell)? Yes or No

*NOTE: If a visitor answers 'Yes' to any of the above questions, ask them to leave the workplace or jobsite immediately and contact their company. In addition, you should strongly consider following the tips below.

FIELD PROCEDURES

For field activities, C.T. Male shall follow C.T. Male SOP – 'Procedures for field staff in relation to COVID-19 or other virus', for vehicle and equipment protocols for disinfection, and protocols for staff, dated March 19, 2020 (Appendix B). It should be noted that PPE for site conditions are maintained in the C.T. Male vehicles.

C.T. Male will also ensure that:

- Per NYS Executive Order 202.16 by Gov. Cuomo, C.T. Male staff will wear face coverings when on-site, with exception of when in C.T. Male vehicle or another enclosed space solely occupied by one (1) C.T. Male staff;
- The single occupant per vehicle policy implemented at the beginning of the crisis will remain in effect until social distancing procedures are no longer needed;
- Maintain Social Distancing: Six-foot distance with others, as is possible;
- Cease shaking hands with coworkers, contractors, subcontractors, clients, etc.
- Make effort to hold safety/tailgate meetings outdoors; maintain social distancing of six feet;
- Eat lunch separately, at least six feet apart;
- Avoid sharing tools and equipment without cleaning and disinfecting;
- Avoid touching eyes, nose and mouth with unwashed hands;
- Cover cough or sneeze with a tissue, then throw tissue in the trash
- Clean and disinfect frequently touched objects and surfaces using a bleach solution or wipe;
- Wash hands often with soap and water for 20 seconds, and use an alcohol-based hand sanitizer that is 60% alcohol when soap and water are unavailable;
- Upon return, the vehicle steering wheel and door handles are wiped down with disinfect wipe or spray disinfectant;
- All personal field gear should remain with the individual employee; it should not be left in a company vehicle, job site, or in the office; and
- C.T. Male does not anticipate receiving deliveries at a job site. Deliveries of items for a project will be delivered to the C.T. Male office prior to the job beginning.

Staff will abide by the guidelines in this section. If an employee does not maintain social distancing, where it is possible, they will be told to maintain the distance. If an employee repeatedly does not maintain social distancing, the project manager or supervisor can take action to remove the employee from the site.

COMMUNICATION

For field staff the site-specific safety officer or supervisor on-site will maintain a log of each person that enters the site. The log will be kept either with the site-specific health and safety plan or with the site daily logs maintained by the site supervisor.

As appropriate at the work site, signage will be posted throughout the site to remind personnel to adhere to proper hygiene, social distancing rules, appropriate use of PPE, and cleaning and disinfecting protocols.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Field staff have available for use, reusable face covering, gloves, safety glasses, and other appropriate PPE for the job tasks on the site. When work requires staff to be within six feet of someone a face covering must be worn. Staff should enter and exit the work site with a face covering on and face covering should be donned when exiting the vehicle. Guidelines from NYS and CDC on proper wearing of face coverings is included in Appendix C.

Note that cloth face coverings or disposable masks shall not be considered acceptable face coverings for workplace activities that impose a higher degree of protection for face covering requirements. For example, if N95 respirators are traditionally required for specific construction activities, a cloth or homemade mask would not suffice. OSHA standards for such safety equipment must be adhered to.

HYGIENE and CLEANING

Employees will adhere to hygiene and sanitation requirements from the Centers for Disease Control and Prevention (CDC) and NYS Department of Health (DOH).

Employees will also adhere to:

- C.T. Male Standard Operating Procedure – 'Procedures for field staff in relation to COVID-19 or other virus', for vehicle and equipment protocols for disinfection, and protocols for staff, dated March 19, 2020 (Appendix B);
- Provide and maintain hand hygiene stations for personnel, including handwashing with soap, water, and paper towels, or an alcohol-based hand sanitizer containing 60% or more alcohol for areas where handwashing is not feasible; and
- For field staff, each field vehicle has been provided hand washing and sanitizing products. Extra supplies are available for field staff to pick up from the safety supply room at the office.

Cleaning products used will be ones that are in accordance with CDC guidelines and EPA's list of approved products against COVID-19.

EXPOSURE AND CONTACT TRACING

If an employee exhibits COVID-19 symptom, the employee must remain at home until he or she is symptom free without the use of fever-reducing or other symptom-altering medicines (e.g., cough suppressants). The Company will similarly require an employee that reports to work with symptoms to return home until they are symptom free.

An employee that tests positive for COVID-19 will be directed to self-quarantine away from work. Employees that test positive and are symptom free may return to work when at least 14 days have passed since the date of his or her first positive test and have not had a subsequent illness. The Company will require an employee to provide documentation clearing their return to work.

If C.T. Male learns that an employee has tested positive, the Company will investigate co-workers and visitors that may have been within 6 feet, for at least 15 minutes, with the confirmed-positive employee in the prior 14 days. Employees will be notified if there is a potential that they have been exposed to COVID-19.

Employees will be notified in the following circumstances:

- If they have been in contact or potential contact with a fellow employee that tests positive for COVID-19;
- Potential exposure due to a fellow employee who has been in close or proximate contact (within six feet) with anyone that tested positive for COVID-19 or who has had symptoms of COVID-19; and
- Potential exposure at a project/work site, visit or meeting outside the office. This exposure could also be a notification from a client project /work site about COVID-19 positive results.

Notification will involve letting the employee know they have been in close contact with an exposure. Employees that have had a potential exposure to COVID-19 and have been notified will be asked about their contacts and potential exposure risks.

The local health department and State DOH must be notified immediately upon being informed of any positive COVID-19 test result by a worker in the office or at a job site.

In the case of a worker or visitor testing positive, cooperation with the local health department is required to trace all contacts in the workplace, and the local health department must be notified of all workers and visitors who entered the site dating back to 48 hours before the worker began experiencing COVID-19 symptoms or tested positive, whichever is earlier, but confidentiality must be maintained as required by federal and state law and regulations.

Local health departments may, under their legal authority, implement monitoring and movement restrictions of infected or exposed persons including home isolation or quarantine.

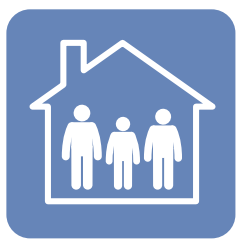
Appendix A
CDC guidance on "Symptoms of Coronavirus (COVID-19)" and "How to protect yourself and others"

Protect yourself from COVID-19 and stop the spread of germs.

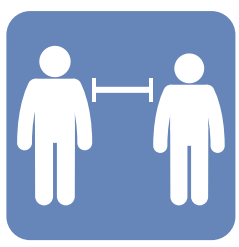
Wash your hands thoroughly with soap and water **for at least 20 seconds**, especially before eating.

Avoid close contact with people who are sick and stay home if you are sick.

Avoid touching your eyes, nose, and mouth.



Stay home as much as possible. **Everyone** – even young people and those who feel well.



If you must go out, **stay at least 6 feet away** from others.

You must wear a face mask or face covering in public when social distancing (staying 6 feet apart) is not possible, especially on public transport, in stores and on crowded sidewalks.

Cover your cough or sneeze with a tissue, then throw the tissue in the trash.

Clean and disinfect frequently touched objects and surfaces.

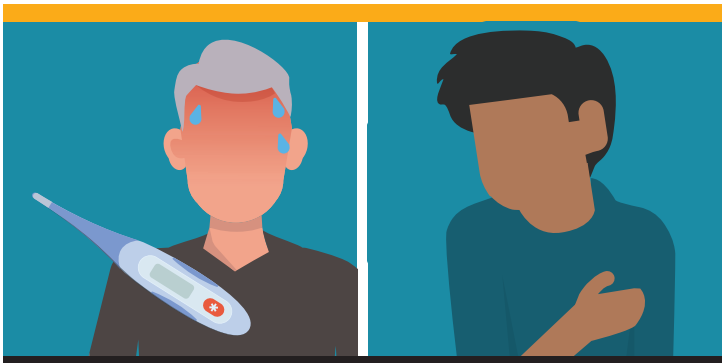
Stay Home. Stay Safe. Save Lives.
www.ny.gov/coronavirus

NEW YORK STATE | Department of Health

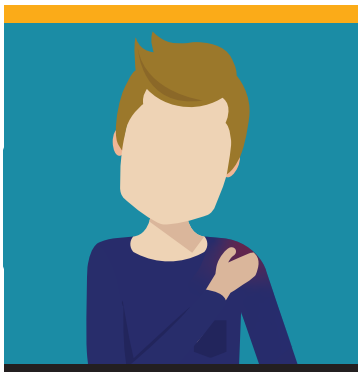
Symptoms of Coronavirus (COVID-19)

Know the symptoms of COVID-19, which can include the following:

Cough, shortness of breath or difficulty breathing



Fever or chills



Muscle or body aches

Vomiting or diarrhea

New loss of taste or smell

Symptoms can range from mild to severe illness, and appear 2-14 days after you are exposed to the virus that causes COVID-19.

Seek medical care immediately if someone has emergency warning signs of COVID-19.

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion
- Inability to wake or stay awake
- Bluish lips or face

This list is not all possible symptoms. Please call your healthcare provider for any other symptoms that are severe or concerning to you.

cdc.gov/coronavirus

316475-A 07/21/2020

How to Protect Yourself and Others

Know how it spreads

- There is currently no vaccine to prevent coronavirus disease 2019 (COVID-19).
- **The best way to prevent illness is to avoid being exposed to this virus.**
- The virus is thought to spread mainly from person-to-person.
  - » Between people who are in close contact with one another (within about 6 feet).
  - » Through respiratory droplets produced when an infected person coughs, sneezes or talks.
  - » These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.
  - » Some recent studies have suggested that COVID-19 may be spread by people who are not showing symptoms.

Everyone should

Clean your hands often

- **Wash your hands** often with soap and water for at least 20 seconds especially after you have been in a public place, or after blowing your nose, coughing, or sneezing.
- If soap and water are not readily available, **use a hand sanitizer that contains at least 60% alcohol.** Cover all surfaces of your hands and rub them together until they feel dry.
- **Avoid touching your eyes, nose, and mouth** with unwashed hands.

Avoid close contact

- **Avoid close contact** with people who are sick.
- **Stay at home as much as possible.**
- **Put distance between yourself and other people.**
  - » Remember that some people without symptoms may be able to spread virus.
  - » This is especially important for **people who are at higher risk of getting very sick.** www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html

CS 316291A 04/18/2020

Cover your mouth and nose with a cloth face cover when around others

- **You could spread COVID-19 to others** even if you do not feel sick.
- **Everyone should wear a cloth face cover when they have to go out in public,** for example to the grocery store or to pick up other necessities.
  - » Cloth face coverings should not be placed on young children under age 2, anyone who has trouble breathing, or is unconscious, incapacitated or otherwise unable to remove the mask without assistance.
- **The cloth face cover is meant to protect other people** in case you are infected.
- Do **NOT** use a facemask meant for a healthcare worker.
- Continue to **keep about 6 feet between yourself and others.** The cloth face cover is not a substitute for social distancing.

Cover coughs and sneezes

- **If you are in a private setting and do not have on your cloth face covering, remember to always cover your mouth and nose** with a tissue when you cough or sneeze or use the inside of your elbow.
- **Throw used tissues** in the trash.
- Immediately **wash your hands** with soap and water for at least 20 seconds. If soap and water are not readily available, clean your hands with a hand sanitizer that contains at least 60% alcohol.

Clean and disinfect

- **Clean AND disinfect frequently touched surfaces** daily. This includes tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, and sinks. www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/disinfecting-your-home.html
- **If surfaces are dirty, clean them:** Use detergent or soap and water prior to disinfection.

Appendix B

C.T. Male's SOP
'Procedures for field staff in relation to COVID-19 or other virus'

C.T. MALE ASSOCIATES ENGINEERING,
SURVEYING, ARCHITECTURE,
LANDSCAPE ARCHITECTURE &
GEOLOGY, D.P.C

STANDARD OPERATING PROCEDURE

Procedures for field staff in relation to COVID-19 or other viruses

March 19, 2020

Print Technical Reviewer	Signature	Date
Print QA Manager	Signature	Date

Review of the SOP has been preformed and the SOP still reflects the current practice			
Initials		**Date**	
Initials		**Date**	

SOP: Procedures for field staff in relation to COVID-19 or other viruses

Due to the COVID-19 virus, C.T. Male field staff shall take the following measures while working and performing their job functions at client sites or other remote locations.

NOTIFICATION & ACCESS PROTOCOLS

1. C.T. Male Managers and Supervisors will notify employees if there are any steps or additional items that will need to be completed before entering a site.

2. On-site access shall be limited to only those staff that are required for each task.

VEHICLES & EQUIPMENT PROTOCOLS

1. Employees shall utilize the vehicle fleet to the maximum extent in order to minimize or eliminate there being multiple employees traveling in the same vehicle. Use of personal vehicles (with mileage reimbursement) may be required.

2. Prior to entering the C.T. Male vehicle assigned to you for the day, use a disinfecting wipe (Clorox or Lysol) or bleach solution to wipe down the exterior and interior surfaces of the vehicle that you will be in contact with. This includes, but is not limited to, exterior/interior door handles, steering wheel, dashboard controls, etc. Use of latex/nitrile gloves and safety glasses/googles are required when conducting these procedures. Please also conduct this procedure at the end of your workday when the vehicle is returned to C.T. Male office location. Dispose of gloves and wipes, paper towels, etc. properly.

3. If you are assigned a vehicle for work use and you are the only driver, at the end of each workday disinfect the vehicle. Latex/nitrile gloves, safety glasses or goggles must be worn when conducting this procedure.

4. After the use of C.T. Male field equipment or rental equipment, disinfect the equipment with Clorox or Lysol wipes or by using a dilute solution of bleach and water. If it is sensitive equipment, that cannot use these types of disinfectants, please refer to the operations manual to determine how the surfaces can be cleaned. Latex/nitrile gloves, safety glasses or goggles must be worn when conducting this procedure.

5. Coolers received from laboratories to C.T. Male locations to be used during sampling activities will be wiped down by a C.T. Male employee when the cooler is received by C.T. Male either at an office or in the field. Disinfect the equipment with Clorox or Lysol wipes or by using a dilute solution of bleach and water. Latex/nitrile gloves, safety glasses or goggles must be worn when conducting this procedure.

STAFF PROTOCOLS

1. C.T. Male staff shall maintain the recommended physical distance from others, to the maximum extent practicable, as established by The Center for Disease Control (CDC), which is currently 6 feet.

2. C.T. Male staff shall utilize PPE of latex, vinyl or nitrile gloves and safety glasses or goggles when not in our office/vehicle. Select activities in isolated locations may exclude the use of latex gloves.

3. C.T. Male staff shall utilize dish soap and clean water for hand washing, for each vehicle and/or Site location. The hand washing system shall include a small (ex., 2.5 gallon) carboy or plastic bucket for soapy water and one for clean water, used with paper towels for drying.

4. C.T. Male staff shall utilize a spray bottle and bleach solution (or disinfecting wipes) and paper towels for use on surfaces.

Location of Materials for field staff

The materials listed below will be maintained in the maintenance storeroom located in the basement, right before the men's locker room. In this room there is a source of water to use for clean water.

Materials

Dish soap
Spray bottles – White, clear plastic, 32 oz. – white spray top.
Spray bottles – HDPE, blur spray top, 22 oz. – To be used at certain client specific sites
2.5 gallon carboys for clean water
Clorox bleach
Clorox bleach mixture
Plastic buckets
Disinfection wipes
Hazard Communication labels for Clorox bleach mixture
Safety Data Sheet for Clorox

The 2.5 gallon carboys and 1 gallon water jugs are not be thrown out but shall be reused to refill the clean water into them as needed.

Clorox bleach mixture will need to be prepared if there is not a mixture already prepared.

Prepare a bleach solution by mixing:

- 1/3 cup of bleach per gallon of water, or
- 4 teaspoons bleach per quart of water. A quart is 32 ounces, which is the size of the white clear plastic spray bottles, with white spray tops.

**PPE is required to be worn when making this solution, inclusive of nitrile gloves and safety glasses or goggles, and is to be performed in a ventilated area. Please do not shut the door to the room.

- If you need to prepare this solution, add the bleach to the water, then mix. For the 32-ounce spray bottles, fill the bottles ¾ of the way full of tap water and then add the 4 teaspoons of bleach. Secure top and mix. Then fill the remainder of the bottle with tap water, with approximately one inch from the top. Secure spray top ensure it is tightly screwed on. Mix the bottle, by lightly shaking. Ensure spray bottle is labeled as "Dilute Bleach Solution".
- There will be premade labels to place on the spray bottles. There will also be a guide on completing a label.
- The containers with clean water – 1-gallon jugs or 2.5-gallon carboys shall be labeled as tap water. They need to have a label so someone not familiar with the container knows what is in it.

"NOTICE: Not all Clorox products that have the traditional Clorox label and logo are appropriate for use as disinfectants. In particular, the "splash-less" formulations are specifically labeled as "not for use as disinfectant or sanitizer". Appropriate bleach solutions should specifically indicate on the label a sodium hypochlorite concentration of approximately 6.5%. Actual concentrations of sodium hypochlorite may vary by manufacturer in a range of 5.5% to 7.25%."

Any questions on procedure or items to be used in this procedure, please reach out to the Corporate Safety Manager.

Appendix C
NYS and CDC on proper wearing of face coverings

Face Masks and Coverings for COVID-19

- You must wear a face mask or face covering in public when social distancing (staying at least 6 feet apart) is not possible, unless a face covering is not medically tolerated. This includes on public transport, in stores and on crowded sidewalks.
- Children over 2 years of age should wear a face mask in public, too. Children under 2 years of age should NOT wear face coverings for safety reasons.
- Cloth face coverings should be made from fabric you can't see through when held up to the light. They must be cleaned before reusing.
- Disposable paper face masks should be used for one outing outside the home. They cannot be properly cleaned.
- The best way to prevent COVID-19 is to continue social distancing (staying at least 6 feet away from others), **even when wearing a face covering.**

Putting On Face Covering

- **DO** clean your hands with soap and water or if that's not available, alcohol-based hand sanitizer, before putting on your face covering.
  - Make sure the face covering covers both your nose and mouth.
- **DON'T** wear your mask hanging under your nose or mouth or around your neck. You won't get the protection you need.
- **DON'T** wear the face covering on top of your head, or take it off and on repeatedly. Once it is in place, leave the covering in place until you are no longer in public.

Taking Off Face Covering

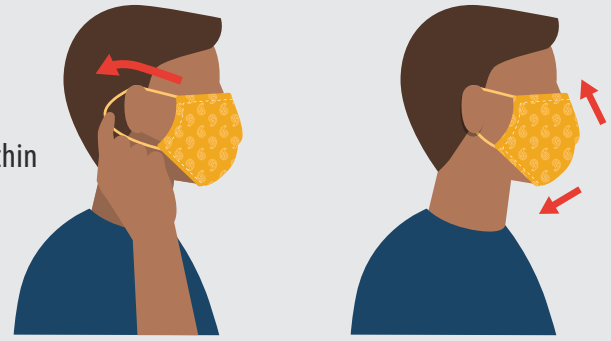
- **DO** clean your hands with soap and water or if that's not available, alcohol-based hand sanitizer, before taking off your face covering.
  - Remove your mask only touching the straps.
  - Discard the face covering if it is disposable. If you are reusing (cloth), place it in a paper bag or plastic bag for later.
- Wash your hands again.
- When cleaning a cloth face covering, **DO** put in the washer (preferably on the hot water setting).
  - Dry in dryer at high heat. When it is clean and dry, place in a clean paper or plastic bag for later use. If you live in a household with many people, you might want to label the bags with names so the face coverings are not mixed up.

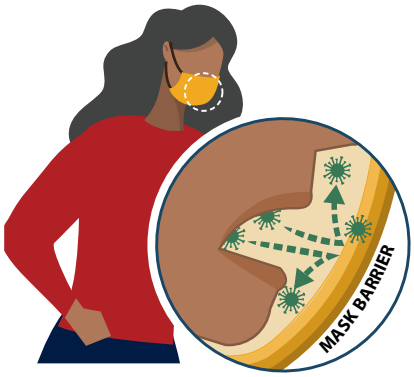
How to Safely Wear and Take Off a Mask

Accessible: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html

WEAR YOUR MASK CORRECTLY

- Wash your hands before putting on your mask
- Put it over your nose and mouth and secure it under your chin
- Try to fit it snugly against the sides of your face
- Make sure you can breathe easily
- Do not place a mask on a child younger than 2



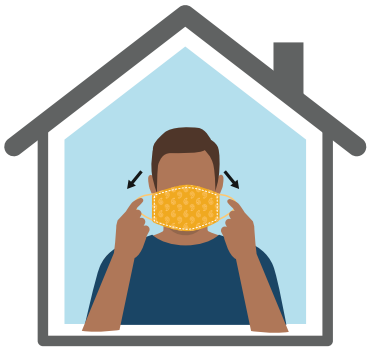


USE A MASK TO HELP PROTECT OTHERS

- Wear a mask to help protect others in case you're infected but don't have symptoms
- Keep the mask on your face the entire time you're in public
- Don't put the mask around your neck or up on your forehead
- Don't touch the mask, and, if you do, clean your hands

FOLLOW EVERYDAY HEALTH HABITS

- Stay at least 6 feet away from others
- Avoid contact with people who are sick
- Wash your hands often, with soap and water, for at least 20 seconds each time
- Use hand sanitizer if soap and water are not available



TAKE OFF YOUR MASK CAREFULLY, WHEN YOU'RE HOME

- Untie the strings behind your head or stretch the ear loops
- Handle only by the ear loops or ties
- Fold outside corners together
- Place mask in the washing machine
- Wash your hands with soap and water

Personal masks are not surgical masks or N-95 respirators, both of which should be saved for health care workers and other medical first responders.

For instructions on making a mask, see: **cdc.gov/coronavirus**

CS 316488l 08/19/2020

APPENDIX D

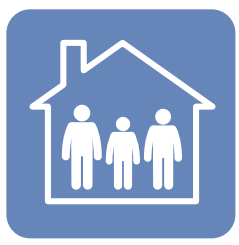
CDC, NYS and NYSDOH GUIDELINES - COVID-19

Protect yourself from COVID-19 and stop the spread of germs.

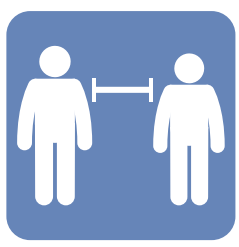
Wash your hands thoroughly with soap and water **for at least 20 seconds**, especially before eating.

Avoid close contact with people who are sick and stay home if you are sick.

Avoid touching your eyes, nose, and mouth.



Stay home as much as possible. **Everyone** – even young people and those who feel well.



If you must go out, **stay at least 6 feet away** from others.

You must wear a face mask or face covering in public when social distancing (staying 6 feet apart) is not possible, especially on public transport, in stores and on crowded sidewalks.

Cover your cough or sneeze with a tissue, then throw the tissue in the trash.

Clean and disinfect frequently touched objects and surfaces.

Stay Home. Stay Safe. Save Lives.
www.ny.gov/coronavirus

NEW YORK STATE | Department of Health

How to Safely Wear and Take Off a Mask

Accessible: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html

WEAR YOUR MASK CORRECTLY

- Wash your hands before putting on your mask
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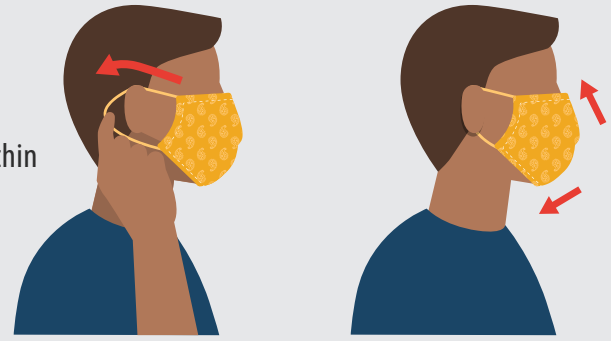

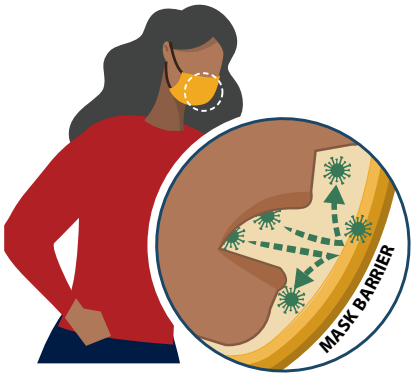

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- Keep the mask on your face the entire time you're in public
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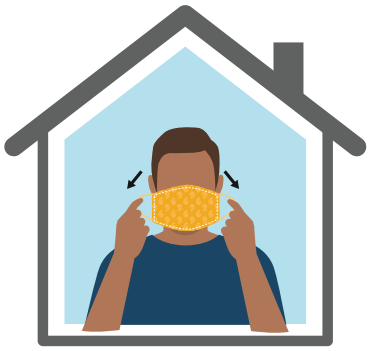
- Don't touch the mask, and, if you do, clean your hands

FOLLOW EVERYDAY HEALTH HABITS

- Stay at least 6 feet away from others
- Avoid contact with people who are sick
- Wash your hands often, with soap and water, for at least 20 seconds each time
- Use hand sanitizer if soap and water are not available



TAKE OFF YOUR MASK CAREFULLY, WHEN YOU'RE HOME

- Untie the strings behind your head or stretch the ear loops
- Handle only by the ear loops or ties
- Fold outside corners together
- Place mask in the washing machine
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CS 316488l 08/19/2020

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  - Make sure the face covering covers both your nose and mouth.
- **DON'T** wear your mask hanging under your nose or mouth or around your neck. You won't get the protection you need.
- **DON'T** wear the face covering on top of your head, or take it off and on repeatedly. Once it is in place, leave the covering in place until you are no longer in public.

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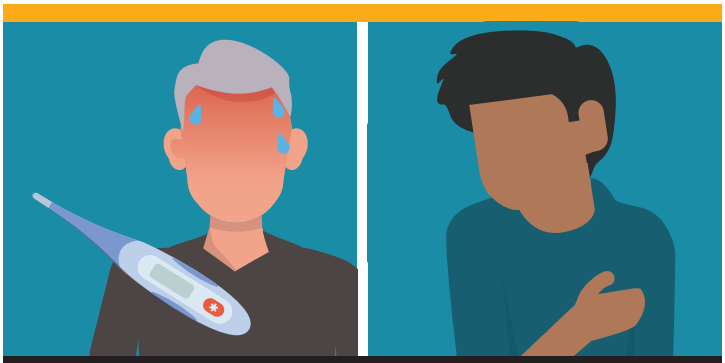
- Wash your hands again.
- When cleaning a cloth face covering, **DO** put in the washer (preferably on the hot water setting).
  - Dry in dryer at high heat. When it is clean and dry, place in a clean paper or plastic bag for later use. If you live in a household with many people, you might want to label the bags with names so the face coverings are not mixed up.

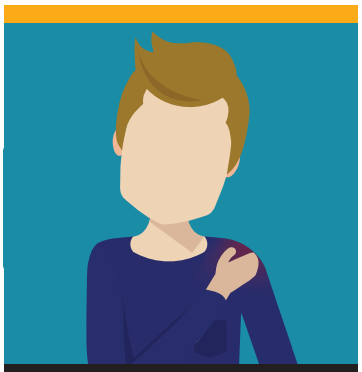
Symptoms of Coronavirus (COVID-19)

Know the symptoms of COVID-19, which can include the following:

Cough, shortness of breath or difficulty breathing



Fever or chills



Muscle or body aches

Vomiting or diarrhea

New loss of taste or smell

Symptoms can range from mild to severe illness, and appear 2-14 days after you are exposed to the virus that causes COVID-19.

Seek medical care immediately if someone has emergency warning signs of COVID-19.

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion
- Inability to wake or stay awake
- Bluish lips or face

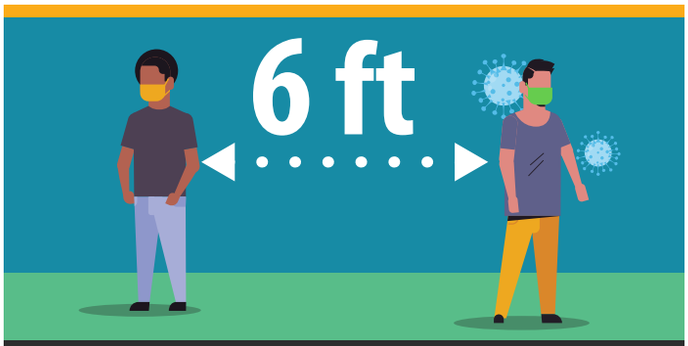
This list is not all possible symptoms. Please call your healthcare provider for any other symptoms that are severe or concerning to you.

cdc.gov/coronavirus

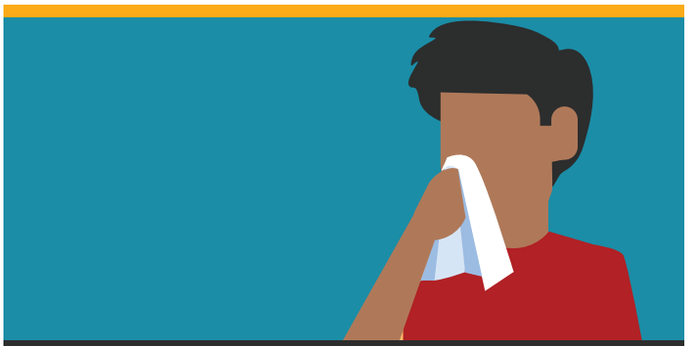
316475-A 07/21/2020

Stop the Spread of Germs

Help prevent the spread of respiratory diseases like COVID-19.

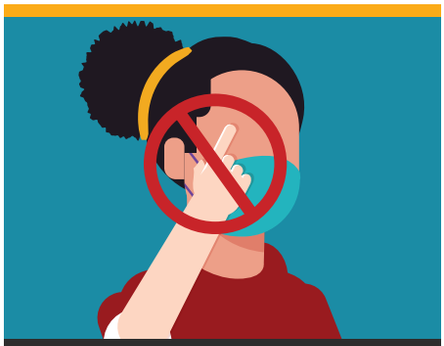


Stay at least 6 feet (about 2 arms' length) from other people.



Cover your cough or sneeze with a tissue, then throw the tissue in the trash and wash your hands.

When in public, wear a mask over your nose and mouth.



Do not touch your eyes, nose, and mouth.

Clean and disinfect frequently touched objects and surfaces.

Stay home when you are sick, except to get medical care.

Wash your hands often with soap and water for at least 20 seconds.

cdc.gov/coronavirus

316917-A August 6, 2020 7:24 PM

10 things you can do to manage your COVID-19 symptoms at home

Accessible Version: https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html

If you have possible or confirmed COVID-19:

1. **Stay home** from work and school. And stay away from other public places. If you must go out, avoid using any kind of public transportation, ridesharing, or taxis.

2. **Monitor your symptoms** carefully. If your symptoms get worse, call your healthcare provider immediately.

3. **Get rest and stay hydrated.**

4. If you have a medical appointment, **call the healthcare provider** ahead of time and tell them that you have or may have COVID-19.

5. For medical emergencies, call 911 and **notify the dispatch personnel** that you have or may have COVID-19.

6. **Cover your cough and sneezes** with a tissue or use the inside of your elbow.

7. **Wash your hands often** with soap and water for at least 20 seconds or clean your hands with an alcohol-based hand sanitizer that contains at least 60% alcohol.

8. As much as possible, **stay** in a specific room and **away from other people** in your home. Also, you should use a separate bathroom, if available. If you need to be around other people in or outside of the home, wear a mask.

9. **Avoid sharing personal items** with other people in your household, like dishes, towels, and bedding.

10. **Clean all surfaces** that are touched often, like counters, tabletops, and doorknobs. Use household cleaning sprays or wipes according to the label instructions.

cdc.gov/coronavirus

CS 315822-A 07/01/2020

EXHIBIT 1

PRELIMINARY PROJECT SCHEDULE

(AS EXCERPTED FROM THE RIWP)

DRAFT

Preliminary Project Schedule (1)
Old Troy Municipal Incinerator BCP Site
Town of Brunswick, Rensselaer County

TASK	APRIL 2021				MAY 2021					JUNE 2021				JULY 2021				AUGUST 2021					SEPTEMBER 2021				OCTOBER 2021				NOVEMBER 2021				DECEMBER 2021				JANUARY 2022					FEBRUAURY 2022				MARCH 2022			
	5	12	19	26	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	31	7	14	21	28	7	14	21	28
Execution of the Brownfield Cleanup Agreement																																																		
Submission of the Draft Remedial Investigation (RI) and Interim Remedial Measure (IRM) Work Plans to the Department for Initial Review for Completeness.																																																		
Department's Initial Review of the RI and IRM Work Plans for Completeness																																																		
Address the Department's Comments to their Initial Review of the Draft RI and IRM Work Plans																																																		
45-Day Public Comment Period for the Draft RI and IRM Work Plans																																																		
Address Department/Public Comments to the Draft RI and IRM Work Plans and Finalize Documents																																																		
Preparation of the Draft Citizen Participation (CP) Plan																																																		
Submission of the Draft (CP) Plan to the Department for Review																																																		
Department Review of the Draft CP Plan																																																		
Address Department Comments to the CP Plan and Finalize the CP Plan																																																		
Remedial Investigation Field Work and Implement IRMs:																																																		
Wetland Survey (Completed)																																																		
Fish & Wildlife Resources Impact Assessment Part 1																																																		
Existing Ground Surface Assessment																																																		
Alta Survey with Topographic Survey																																																		
Sample Shallow Soil, Surface Soil, Surface Water and Sediments																																																		
Landfill Extent Assessment via Test Pitting																																																		
Advance Soil Borings for Installation of Overburden Monitoring Wells and Soil Gas Sampling Points																																																		
Development, Purging and Sampling of Newly Installed Overburden Monitoring Wells, Previously Installed Existing Overburden and Bedrock Monitoring Wells, and Off-Site Potable Water Wells (if applicable)																																																		
Collect Soil Gas Samples																																																		
Horizontal and Vertical Survey of Sampling Points																																																		
Management of Investigation Derives Wastes																																																		
Implementation of IRMs[2]																																																		
Receipt of Laboratory Data and Data Usability Summary Reports																																																		
Submit Draft RI Report & Draft IRM Construction Completion Report (CCR) to NYSDEC for Review																																																		
NYSDEC Review of Draft RI Report and Draft IRM CCR																																																		
Address NYSDEC Comments and Finalize RI Report & Draft IRM CCR																																																		
NYSDEC Conducts Significant Threat Determination																																																		
Selection of Proposed Remedy - No Further Action (NFA)[3]																																																	
45-Day Public Comment Period for the Proposed Remedy - NFA																																																	
NYSDEC Finalization of the Proposed Remedy and Issuance of the Decision Document																																																	
NYSDEC Issuance of the Certificate of Completion (COC) to be Determined. Anticipate Spring 2022[4]																																																	
Prepare Site Management Plan (if Applicable) and Submit to the Department for Review and Ultimate Acceptance[5]																																																	

NOTES:

(1) This schedule is subject to change based on the execution date of the Brownfield Cleanup Agreement (BCA) and Department review time of the work plans and reports.

(2) The time frame for completion of the IRMs is dependent on scheduling. The IRMs are anticipated to be completed during the Remedial Investigation field work. The anticipated IRMs include Site clearing and grubbing; removal of surficial solid wastes; Site grading; installation of security fencing; installation of access roads; installation of utilities; and placement of a demarcation layer and cover material.

(3) It is assumed that the IRMs will remediate the Site to the extent that the Department will issue a NFA as the proposed remedy. However, there exists the potential that the IRMs may not sufficiently remediate the Site and that further remediation may be required by the Department.

(4) Issuance of the COC during this timeline is predicated that no further IRMs and/or remedial actions will be required by the Department. If additional IRMs and/or remedial actions are required, the COC would be delayed until the IRMs and/or remedial actions are completed.

(5) The Site Management Plan can be prepared after the COC is issued. Department approval of the Site Management Plan will not delay approval of the COC.

The dates illustrated (i.e. April 5, 2021) on the project schedule correspond to the Monday of each week. Highlights placed on these dates indicates that the deliverable will be submitted and/or completed during the referenced week

Alterations to the Project Schedule will be discussed in the monthly project progress reports. If needed, a revised Project Schedule will be submitted with the monthly progress reports.