Appendix III/IV.P
Soil and Materials Management Plan (SMMP)

Hudson Highlands Fjord Trail

PUTNAM & DUTCHESS COUNTIES

NEW YORK

Soil and Materials Management Plan

AKRF Project Number: 220233

Prepared for:

Hudson Highlands Fjord Trail, Inc.
85 Civic Center Plaza, Suite 300
Poughkeepsie, York, New York 12601

Prepared by:

AKRF, Inc.
34 South Broadway
White Plains, NY 10601
914-949-7336

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1.0 INTRODUCTION

AKRF, Inc. (AKRF) has prepared this Soil and Materials Management Plan (SMMP) for the proposed Hudson Highlands Fjord Trail project (the "Fjord Trail" or the "Project"), which will be a non-motorized, shared-use (pedestrian and bicycle), publicly accessible linear park, generally along the Hudson River between the City of Beacon (Dutchess County) at its northern end and the Village of Cold Spring (Putnam County) at its southern end. The Site, shown on Figures 1 and 2, is within the Hudson Highlands area of the Hudson Valley region of New York State, an area of low mountains generally between the City of Peekskill to the south and the Cities of Beacon and Newburgh to the north. The Hudson Highlands are a series of ridges and valleys divided by the Hudson River, which flows through a steep-sided fjord carved by glaciers.

The proposed Fjord Trail would include development of a Main Trail, Trail Meanders, Trail Banks, Water Trail Connections, Regional Trail connections, new and expanded parking areas, restroom buildings, and a maintenance facility. For the purposes of the Generic Environmental Impact Statement (GEIS) prepared in accordance with the New York State Environmental Quality Review Act (SEQRA), the Project is described as two sections: the Fjord Trail North Corridor and the Fjord Trail South Corridor. The proposed Fjord Trail North section would extend about 5.5 miles from Long Dock Park in Beacon to the Breakneck Connector and Bridge (BNCB). Fjord Trail North would connect a number of existing recreational resources, including Long Dock Park, the Klara Sauer Trail, Denning's Point, Madam Brett Park, The Notch, and Bannerman Island. The proposed Fjord Trail South section would extend about 2 miles from the southern end of the BNCB to Dockside Park in the Village of Cold Spring. Fjord Trail South would connect to existing recreational resources, including Breakneck Ridge and trails in the Hudson Highlands State Park Preserve (HHSPP) (within the Town of Fishkill) via the BNCB, Little Stony Point, the Washburn Trail, and the Cornish Trail, and Dockside Park.

It is anticipated that the proposed Project would require ground disturbance and excavation in areas adjacent to former industrial sites (some with documented subsurface contamination) and/or historic or current railroad operations, including the Metro-North Railroad (MNR) Hudson Line and the inactive Beacon Line railbed between Denning's Point and Madam Brett Park. The purpose of this SMMP is to present procedures for managing soil and groundwater during the subsurface disturbance associated with the proposed Project in accordance with applicable federal, state, and local requirements, including guidelines for temporary on-site stockpiling and off-site transportation and disposal of soil. The SMMP is based upon the findings of the previous investigations summarized in Section 2.2.

All work outlined within this SMMP is also subject to the *Construction Health and Safety Plan* (CHASP) developed for the Site, provided as Appendix A.

2.0 SITE BACKGROUND

2.1 Site Characterization

The Fjord Trail would be partially within HHSPP, which is owned and managed by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), and would extend through other public and private lands.

Fjord Trail North Corridor

The existing conditions of the Fjord Trail North Corridor vary along the Hudson River shoreline. Areas along the northern portion of the Fjord Trail North Corridor are bounded by marshland and densely wooded areas, existing recreational trails, and interspersed waterfront public access areas, including Long Dock Park and Denning's Point. Areas along the southern portion of the Fjord Trail North Corridor include residential uses, Dutchess Manor, and HHSPP. Additional waterfront areas (some currently with limited public access) are present between the Notch (HHSPP) and the Metro-North Railroad (MNR) Beacon train station, and trails near Fishkill Creek in the vicinity of the former Tioronda Hat Works facility and within Madam Brett Park. Railroad tracks, including the MNR Hudson Line commuter railroad tracks, are located adjacent to the Fjord Trail North Corridor in several areas, and an inactive rail line is present along the northern portion of the Fjord Trail North Corridor near Denning's Point and Madam Brett Park.

Based on U.S. Geological Survey mapping (West Point, Cornwall-on-Hudson, Wappingers Falls, Poughkeepsie and Newburgh, NY Quadrangles dated 2013), the project area elevations range between generally less than 10 to roughly 380 feet above mean sea level. Several areas of bedrock outcrops are present along the Fjord Trail North Corridor and along the waterfront, and USGS mapping indicated that bedrock beneath the Fjord Trail North Corridor consists of pyroxene-hornblende-quartz-plagioclase gneiss; hornblende granite and granite gneiss; and Austin Glen Formation. Soil beneath the Fjord Trail North Corridor includes well drained to somewhat excessively well drained soils, low water tables [except for the Hy Soil located around the Metro-North Railroad (MNR) Breakneck Ridge train station] and deep bedrock, except for the occasional outcrops. The areas of the Fjord Trail North Corridor located within parks (HHSPP and Madam Brett Park) are mostly characterized by soils of Farmland Statewide Significance. The areas of Fjord Trail North Corridor within Beacon mostly consist of urban fill. Groundwater is anticipated to be first encountered at an elevation at or near the high tide level and is likely tidally influenced in areas close to the Hudson River shoreline. For areas inland, depth to the water table is anticipated to range between zero and 6.5 feet below ground surface (bgs).

Fjord Trail South Corridor

The majority of the Fjord Trail South Corridor is situated within or adjacent to the MNR right-of-way and along the Hudson River shoreline. Wooded hiking trails with scenic riverfront viewing areas are present on Little Stony Point (HHSPP), and Dockside Park (HHSPP; owned by OPRHP and managed by the Village of Cold Spring) consists of a municipal open area park with primarily landscaped grass-covered areas along the riverfront. The Fjord Trail South Corridor also includes portions of West Street, Main Street, and Fair Street, which meets NYS Route 9D at a wide intersection. Much of the Fjord Trail South Corridor encompasses the MNR ballast and rip-rap along the Hudson River shoreline.

The project area ground surface elevations range between the water level of the Hudson River (tidal in this area) to roughly 45 feet above mean sea level on Little Stony Point. Several areas of bedrock outcrops are present along the Fjord Trail South Corridor, including at Little Stony Point and Breakneck Ridge. Information included in the initial review and analysis report and USGS mapping indicated that bedrock beneath the Fjord Trail South Corridor is composed of hard granites and

gneisses, with softer biotites and gneisses present beneath Cold Spring. Soil along the southern Trail Corridor includes loam with varying amounts of sand and gravel. Certain areas are shallow to bedrock with bedrock outcrops, exposed boulders, and gravel. In the Fjord Trail South Corridor along the shoreline and in the MNR right-of-way, these areas are almost entirely comprised of fill and at the surface are covered with rip-rap, crushed stone, and railroad ballast. Groundwater is anticipated to be first encountered at an elevation at or near the high tide level and is likely tidally influenced in areas close to the Hudson River shoreline.

2.2 Previous Environmental Investigations

To identify potential sources of subsurface hazardous materials, this assessment included: a review of historical land use maps (e.g., Sanborn maps), historical topographic maps and aerial photographs; and a review of state and federal regulatory databases relating to use, generation, storage, treatment and/or disposal of hazardous materials. The databases searched were generally in accordance with the American Society for Testing and Materials (ASTM) Designation E 1527-21 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-21). This information included records from databases maintained by the U.S. Environmental Protection Agency (USEPA) and New York State Department of Environmental Conservation (NYSDEC). A map showing the areas of concern identified for both corridors is provided on Figures 1 and 2.

2.2.1 Fjord Trail North Corridor

Historical Maps Review

Historical Sanborn® fire insurance maps (map availability was limited for the project area), topographic maps and aerial photographs indicated that the project area was historically primarily wooded, undeveloped land between the Beacon and Cold Spring waterfronts, with some interspersed sparse residential uses and limited commercial use, e.g., quarry operations.

In the Beacon area, historical industrial uses were present along the riverfront and nearby areas since at least the late 1880s, with some operations present through the mid-1990s. Such uses included a former major oil storage facility, coal and lumber yards, paint works, and a municipal landfill along the waterfront immediately west and northwest of the MNR Beacon train station, and a former manufactured gas plant (MGP) facility just northeast of the current train station parking lot. Additional landfilling operations were present south of the train station area, including a former municipal landfill just northeast of the Denning's Point railroad overpass, and a brick works facility formerly operated at Denning's Point circa 1881 to 1939 (subsequently a 'Durisol' factory according to regulatory database information). The former Tioronda Hat Works facility was present along the northern shore of Fishkill Creek, just west of the current parking lot for Madam Brett Park along South Avenue; this former textile and hat manufacturer operated circa the late 1870s, with subsequent use as rubber/chemical works and dye works.

Historical petroleum and chemical uses in prior industrial operations, wastes associated with manufactured gas plant operations and landfilling have resulted in several areas of discrete contamination at certain properties adjacent to or in close proximity to the Fjord Trail North Corridor, some with ongoing remedial oversight and management by the NYSDEC, as noted in the regulatory database information below.

Based on the nature and proximity of the historical industrial waterfront uses, some limited potential exists for residual contaminated soil and/or groundwater to be present within the Fjord Trail North Corridor.

Buried foundation elements and debris from former structures and railroad components, if present, could include underground storage tanks (USTs), PCB-containing materials, LBP, asbestos-containing materials (ACM), and/or creosote-treated wood.

Regulatory Database Review

The findings of the regulatory database review identified several AOCs including certain adjacent or nearby facilities with documented subsurface contamination, some with ongoing management and oversight by NYSDEC and/or USEPA. Pertinent facilities identified in the regulatory database search with some potential to have affected subsurface conditions beneath the Fjord Trail North Corridor (e.g., from residual contamination migration to the project area) are summarized in the following table.

Listing	Distance/ Direction	Assumed Hydraulic Gradient	Regulatory Database Program(s)	Regulatory Status/Available Data
Garret Storm, Inc. Long Dock Park Beacon, NY	West-adjacent to Fjord Trail North Corridor at MNR Beacon Train Station	Cross/ Downgradient	MOSF NY Spills VCP	This facility (Site ID No. 3-2500) is listed as a former Major Oil Storage Facility (MOSF) with several closed status NYSDEC Spills including a 1993 spill listing noting the presence of free-phase petroleum product and petroleum-stained soils encountered during subsurface investigations due to historic petroleum storage and fueling operations. The site was subsequently entered into the NYSDEC Voluntary Cleanup Program (VCP). The spill file notes indicated that remedial activities, including the excavation and off-site disposal of affected soil, was completed by 2003 for the facility and the site is being managed under the VCP with oversight from NYSDEC.
Beacon City Landfill/ Municipal Park Beacon, NY	Northwest-adjacent to Fjord Trail North Corridor at MNR Beacon Train Station	Crossgradient	HSWD SHWS SEMS-ARCHIVE	This facility (Site ID No. 58737) was the location of a former municipal landfill that received municipal, commercial, and industrial wastes (including former dye works wastes). NYSDEC file notes indicated that the former landfill area was covered with a plastic liner and approximately 4 feet of soil and vegetative cover was placed above the liner prior to the conversion of the site to a public park. NYSDEC file entries indicated that no evidence of leachate or surface water contamination or hazardous waste disposal was identified in previous subsurface investigations and the site was ineligible for addition to the Registry of Inactive Hazardous Waste Disposal Sites.
Central Hudson Gas & Electric (CHG&E) MGP River Street Beacon, NY	Northeast-adjacent to the MNR Beacon Train Station (~200 feet northeast of the Fjord Trail North Corridor)	Cross/ Upgradient	VCP EDR MGP	This facility (Site ID No. V00293-3) was the location of a former manufactured Gas Plant (MGP) between roughly 1871 to 1946. NYSDEC file information indicated that soil sampled as part of a real estate transaction in 2005 and 2006 was found to be contaminated with coal tar and other MGP related chemicals. Subsequent remedial activities included the removal of affected soil with oversight from NYSDEC.

Based on information provided in the regulatory database listings, including the nature and extent of contamination from former operations and/or inferred hydraulic gradient (e.g., groundwater flow direction) with respect to the Fjord Trail North Corridor, some limited potential exists for contaminated soil and/or groundwater to be encountered during disturbance associated with the proposed trail section. Excavation or disturbance in areas regulated by NYSDEC would require coordination with the agency prior to any disturbance.

Phase I Environmental Site Assessment (ESA) – 90-96 Dennings Avenue, Beacon, NY - Partridge Venture Engineering, PC, December 2023

A Phase I ESA was prepared for the 90-96 Dennings Avenue site in Beacon. The Phase I ESA identified the following recognized environmental conditions (RECs):

- A petroleum spill, NYSDEC Spill #8707165, was reported for the site in February 1988 associated with the removal of a 2,500-gallon underground storage tank (UST). The spill was remediated and closed the same day.
- One 1,000-gallon, No. 2 fuel-oil UST installed in 1971 was closed in-place. The closure date was reported for this tank and no tank closure or tightness tests were provided.
- A closed city landfill was present on the south-adjacent property, which may have impacted regional groundwater conditions.

Based on these findings, there is some potential for the 90-96 Dennings Avenue site to have affected subsurface conditions beneath the site of the proposed maintenance facility.

2.2.2 Fjord Trail South Corridor

Historic Map Review

Historical Sanborn® fire insurance maps (map availability was limited for the project area), topographic maps, and aerial photographs indicate that the project area was historically primarily wooded, undeveloped land along the Cold Spring and Philipstown waterfronts, with some interspersed sparse residential uses and limited commercial use, e.g., quarry operations.

Industrial uses were present along the Village of Cold Spring waterfront since at least 1887, including coal and lumber storage yards, foundries, a former furnace factory at the current location of Dockside Park with a south-adjacent railroad spur, and a lumber yard and a manufactured gas works plant on blocks east of the southern terminus of Main Street. Some of these facilities also historically contained petroleum bulk storage tanks (some with listed spills) and/or utilized chemicals, paints, and/or wood treatment products. Additionally, historical quarry operations were present north of the Village of Cold Spring, including a former quarry on Bull Hill (aka Mt. Taurus) which operated an ancillary stone storage yard at Little Stony Point and ceased operations in the late 1960s.

Historical petroleum and chemical uses in prior industrial operations, wastes associated with manufactured gas plant operations and landfilling has resulted in several areas of discrete contamination at certain properties adjacent to or in close proximity to the Fjord Trail South Corridor, some with ongoing remedial oversight and management by the NYSDEC, as noted in the regulatory database information below.

Based on the nature and proximity of the historical industrial waterfront uses, some limited potential exists for contaminated soil and/or groundwater to be present within the Fjord

Trail South Corridor. Additionally, any potential excavation in areas regulated by NYSDEC would require coordination with the agency prior to any disturbance. Buried foundation elements and debris from former structures and railroad components, if present, could include underground storage tanks (USTs), PCB-containing materials, LBP, asbestos-containing materials (ACM), and/or creosote-treated wood.

Regulatory Database Review

The findings of the regulatory database review identified several areas of concern (AOC) including certain adjacent or nearby facilities with documented subsurface contamination, some with ongoing management and oversight by the NYSDEC. Pertinent facilities identified in the regulatory database search with some potential to have affected subsurface conditions beneath the project site (e.g., from migration of residual contamination to beneath the proposed action) are summarized in the following table.

Listing	Distance/ Direction	Assumed Hydraulic Gradient	Regulatory Database Program(s)	Regulatory Status/Available Data
Cold Spring MGP 5 New Street Cold Spring, NY	~200 feet southwest of Fjord Trail South fronting the Cold Spring marina	Cross/ Downgradient	SHWS EDR MGP	This facility (Site ID No. 340026) was the location of a former manufactured Gas Plant (MGP) prior to 1887 and the current location of the Cold Spring Boat Club. Subsurface investigations indicated certain coal tar-related contaminants in soil, groundwater and sediment. NYSDEC file information indicated that remediation of the site is complete and residual contamination at the facility is being managed under a Site Management Plan (SMP) with NYSDEC oversight.
Former H.W. Smith Oil Company 35 Market Street Cold Spring, NY	West-adjacent to the Cold Spring Train Station	Cross/ Downgradient	MOSF	Former Major Oil Storage Facility (MOSF) 3-1560, listed as an inactive facility. No additional pertinent information was listed for the facility in the database search.
Former Lumber Yard 2 Main Street Cold Spring, NY	~150 feet southwest of Fjord Trail South just east of the terminus of Main Street	Cross/ Downgradient	NY Spills	Several closed spills were listed for the facility between ~1989 and 2006 due to petroleum contaminated soil discovered during excavation activities. The spills were addressed and closed by NYSDEC.

Based on information provided in the regulatory database listings, including the nature and extent of contamination from former operations and/or inferred hydraulic gradient with respect to the Fjord Trail South Corridor, some limited potential exists for contaminated soil and/or groundwater to be encountered during construction. Excavation or disturbance in areas regulated by NYSDEC would require coordination with the agency prior to any disturbance.

3.0 CONSTRUCTION MEASURES

It is anticipated that the proposed construction would require soil disturbance/excavation. Depending upon where construction activities occur (i.e., proximity to the areas of concern identified by the previous assessments/investigations), soil containing metals and organic compounds above 6 NYCRR Part 375 Soil Cleanup Objectives may be encountered during soil disturbance for the proposed project. Soil handling procedures are provided in Section 3.2.

In the event that contaminated soil (e.g., petroleum-contaminated soil) is encountered, a contingency plan is provided in Section 3.2 for appropriate handling, testing, and disposal of these materials during general excavation. A contingency plan for the removal of any unexpectedly encountered petroleum storage tanks is provided in Section 3.4.

Following completion of subsurface work and implementation of the SMMP, documentation of any environmental investigative and remedial activities will be submitted to Hudson Highland Fjord Trail, Inc., as detailed in Section 6.0. The submission should include, but not be limited to, a description of completed construction activities and any deviations from this SMMP, copies of manifests/bills of lading associated with off-site disposal of material, photographs of the work, and any laboratory results received for additional sampling during construction including waste characterization, off-site disposal purposes, and imported soil, if applicable.

3.1 Pre-Demolition Surveys

Prior to the onset of any demolition (or renovation, as applicable) activities, surveys shall be conducted in all proposed demolition areas to identify all potential ACM, LBP, and PCBs, or other hazardous materials. All suspect materials identified in the surveys shall be managed, removed, and disposed of off-site in accordance with all federal, state, and local requirements.

3.2 Soil Disposal

If sludges, soil, or sediment known to be contaminated or showing evidence of potential contamination, such as discoloration, staining, or odors are encountered during excavation activities, the following procedures will be implemented:

1. Spill reporting to the NYSDEC Spill Hotline (800-457-7362) will be conducted, as necessary.
2. The suspect soil will be sampled for laboratory analyses. Soil samples will be analyzed, at a minimum, for parameters required by the intended disposal facility. Additional analytical requirements may be required based on the nature of the contamination.
3. If the suspect soil is determined to be significantly contaminated according to analytical results, it will be excavated and removed in accordance with the stockpiling and/or direct-loading procedures presented in Section 3.2.2 and 3.2.3, respectively.
4. The excavation will continue vertically until no evidence of contamination is noted in the base of the excavation or until groundwater or bedrock is encountered. The excavation will continue horizontally until no evidence of contamination is noted in the sidewalls of the excavation. Post-excavation endpoint samples will be collected from the sides and bottom of the excavated area and analyzed in accordance with the NYSDEC CP-51 or NYSDEC Division of Environmental Remediation DER-10, based on the nature of the identified contamination. If post-excavation samples exceed action levels, then additional excavation will be performed, as warranted.
5. Soils intended for off-site disposal will be tested in accordance with the requirements of the receiving facility (as discussed further in Section 3.2.1), and disposed of in accordance with applicable federal, state and local requirements. If additional sample analyses are required by

alternative disposal facilities, additional analysis may be run on existing sample material at the laboratory as long as all holding time and preservation requirements have not been exceeded.

6. All analytical results, including endpoint sample and excavated soil characterization sampling results, must be received, reviewed, and discussed by the project team before the soil excavation can be backfilled, and before the excavated material can be disposed of off-site, as additional samples may need to be collected.
7. The excavated soil will then be disposed of in accordance with all applicable federal, state and local regulations.
8. Copies of correspondence with disposal facilities concerning classification of materials, testing results, and permits/approvals will be maintained by the project manager and will be submitted to NYSDEC in a Spill Closure Report, as necessary.

When applicable, hazardous waste manifest forms and/or non-hazardous waste records will be completed as required by the appropriate regulatory agencies for verifying the material and quantity of each load in units of volume and weight.

3.2.1 Off-Site Disposal and On-Site Soil Reuse Criteria

Existing soil intended to be excavated (if any) during the construction activities will be characterized at a rate of one representative sample for every 800 cubic yards of soil or other frequency as required by the intended disposal facility. Waste characterization sampling would likely be conducted in-situ (i.e., in advance of excavation) using a grid-based system.

Each sample will be analyzed for NYSDEC Part 375 VOCs, SVOCs, pesticides, PCBs and target analyte list (TAL) metals, and other parameters required by the intended disposal facilities. This data may also be utilized to evaluate appropriate disposal facility options and the potential suitability for reuse on-site, based on the following criteria:

- Soil that meets the Part 375 RRSCOs may be reused on-site as part of the Site cap, as defined in Section 4.1. Soil proposed for reuse (if any) will be tested in accordance with Section 4.1 and a detailed clean soil report (as noted in Section 4.1) will be submitted to and approved by Hudson Highland Fjord Trail, Inc. prior to reuse at the Site.

Off-site disposal analytical thresholds will be determined by the individual disposal facilities.

3.2.2 Stockpiling Procedures

No petroleum-contaminated soil excavated from the Site (if encountered) will be re-used on-site for any purposes. Contaminated material intended for off-site disposal may be stockpiled temporarily or loaded directly onto trucks for off-site disposal, if pre-approved by the receiving facility.

Soil with contamination established by laboratory analytical data or exhibiting field-screening evidence of contamination will be stockpiled on polyethylene sheeting following excavation. If the soil is expected to remain on-site overnight or longer, the stockpile will be covered with similar polyethylene sheeting, which will be secured with large rocks or other appropriate weights, such as sandbags, to protect against leaching or runoff of contaminants into groundwater or stormwater. Stockpiles will be managed to minimize particulate generation, and run-off and erosion using water, plastic covers, silt fences, and/or hay bales, as necessary.

Silt fencing and/or hay bales will also be used as needed near catch basins, and other discharge points to serve as a stormwater pollution prevention measure.

Soil will be segregated and stockpiled based on its known or anticipated type and/or level of contamination (based on analytical data, PID readings, odor, staining, etc.). Stockpiles will be separated by a sufficient distance or by physical barriers to ensure that mixing of dissimilar or potentially dissimilar materials does not occur. The location and classification of stockpiles will be tracked on Site drawings and updated, if necessary, at the end of each workday according to the following categories:

- Soil intended for reuse on-site (reuse criteria specified in Section 3.2.1);
- Non-petroleum-contaminated, non-hazardous soil for off-site disposal;
- Non-petroleum-contaminated, hazardous soil for off-site disposal;
- Petroleum-contaminated soil for off-site disposal; and
- Soil pending analysis, if in-situ testing is infeasible.

Copies of Site drawings will be kept in a field log book. Stockpiles intended for off-site disposal may be mixed with other compatible stockpiles on-site (compatibility will be determined by the requirements of the receiving disposal facility), but hazardous or petroleum-contaminated wastes will not be mixed with other non-hazardous wastes.

3.2.3 Alternatives to Stockpiling

Alternative procedures to stockpiling could include, but are not limited to, agreement(s) from the intended disposal or treatment facilities to accept boring data and/or analytical data previously obtained so that materials may be directly loaded into trucks for shipment to the disposal facility.

3.3 Waste Management and Transportation

Transportation of all material leaving the Site for off-site disposal will be in accordance with federal, state and local requirements (including, as applicable, 6 NYCRR Part 364 and U.S. DOT regulations) covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc.

The schedule for truck arrival will be coordinated to meet the approved project schedule. The schedule will be compatible with the availability of equipment and personnel for material handling operations at the job site. Trucks will be protected against contamination by properly covering and lining truck beds with compatible material (such as polyethylene) or by decontaminating them prior to any use other than hauling contaminated materials.

All vehicles leaving the Site will be inspected to ensure that soil adhering to the wheels or under carriage is removed prior to the vehicle leaving the Site. Any situations involving material spilled in transit or mud and dust tracked off-site will be remedied. The truck access routes will be evaluated for road conditions, overhead clearance, and weight restrictions.

Contaminated materials from other projects will not be combined with material from the construction area. The transporter will not deliver waste to any facility other than the facility(s) listed on the shipping manifest.

3.4 Petroleum Tank Closure and Removal

In the event that unknown petroleum storage tanks are identified or encountered at the Site, the tanks and any appurtenances will be cleaned, removed and disposed of in accordance with accepted industry standards and applicable federal, state, and local regulatory agency requirements. Tank

closure and any soil removal from the vicinity of any discovered USTs will be conducted in accordance with the NYSDEC Divisions of Spills and Response Memorandum on Permanent Closure of Petroleum Storage Tanks, dated July 1998, and updated in December 2003, and NYSDEC Division of Environmental Remediation (DER) Commissioner Policy (CP) 51, "Soil Cleanup Guidance," dated October 21, 2012. Laboratory testing of both characterization samples and of samples obtained from the excavation areas will include NYSDEC CP-51 VOCs and SVOCs.

Any unregistered tanks encountered at the Site will be registered with NYSDEC's PBS database. Tank closure activities and any associated petroleum-contaminated soil removal will be documented in a separate Tank/Spill Closure Report, which will be submitted to NYSDEC to document all activity related to the formerly unregistered tanks.

Typical tank removal procedures are summarized below:

1. Open fill cap or vent pipe and measure for product. If measurable product exists, collect a sample of the product. Tank contents will be sampled in accordance with applicable federal, state and local requirements and tested in accordance with the requirements of the receiving facility. Proper disposal of tank contents at an approved facility will be dictated by sample results.
2. Vacuum liquid tank contents and pumpable tank bottom residue.
3. Excavate around the tank with care to avoid release of any residual tank and piping contents. Hand excavation around the tank may be necessary. The sidewalls of all excavated areas will be properly stabilized in accordance with Occupational Safety and Health Administration (OSHA) regulations. Continuously monitor the excavated areas in the worker breathing zone for the presence of flammable, toxic, or oxygen-deficient atmosphere with a PID, a combustible gas indicator (CGI), and an oxygen meter.
4. Inert the tank of flammable vapors using dry ice and verify inertness using an oxygen meter (less than 7 percent). An access hole will be cut in the tank and the tank will be thoroughly cleaned of residual liquids and sludges.
5. Entry of the tank, if necessary, will be conducted in conformance with OSHA confined space requirements.
6. Remaining fuels, loose slurry, sludge materials and wastewater will be collected in DOT-approved drums, sampled and analyzed for disposal characterization. After disposal characterization, waste material will be removed and disposed of in accordance with applicable regulations.
7. Remove the tank and all associated piping from the ground and clean the outside of the tank. The tank and piping will be rendered "not reusable," removed from the Site and disposed of according to applicable regulations with proper documentation. If present, remove and dispose of all concrete tank support structures or vaults, as encountered.
8. After tank removal, examine for evidence of petroleum releases in accordance with the NYSDEC Memorandum on Permanent Closure of Petroleum Storage Tanks. If there is evidence of a petroleum release, follow procedures for Soil Disposal provided in Section 3.2, in addition to the procedures below.
9. If the tank cannot be physically removed due to structural concerns, it will be cleaned following the procedures described in Items 1, 2, 4, 5, and 6 above. Following cleaning, the tank will be permanently closed by filling the tank with a solid, inert material such as cement slurry or foam in accordance with NYSDEC guidance and regulations.

10. Spill reporting to the NYSDEC Spill Hotline (800-457-7362) will be conducted, if deemed necessary in consultation with the project team.
11. All excavated materials will be field-screened with a PID. If soil contamination is present, excavate and remove contaminated soil from the tank areas in accordance with the stockpiling and/or direct-loading procedures presented in Sections 3.2.2 and 3.2.3, respectively. Material will be excavated, to the extent practicable, until field screening with a PID yields concentrations of less than 20 parts per million (ppm) and until there are no remaining visible signs of contamination or odors. After contaminated soil removal, collect endpoint samples at each sidewall and at the bottom of the excavation for analytical testing as specified in NYSDEC CP-51.
12. Photo-document all procedures and record all procedures in a bound field notebook.
13. Copies of all testing results, correspondence with disposal facilities concerning classification of materials, and permits/approvals will be maintained by the project manager and will be submitted to the NYSDEC in a Tank Closure Report, as warranted.
14. A signed affidavit will be prepared by the licensed tank installation (removal) contractor and submitted to the New York City Fire Department (NYCFD) certifying proper removal of the tank(s).

3.5 Dust Control

To prevent the potential migration of dust that may contain above-background levels of contaminants, the following measures will be implemented during all earth-disturbing operations:

- Water will be available (and used) for sprinkling/wetting to suppress dust in dry weather or as necessary.
- All haul trucks will have tarp covers.
- Stabilized construction entrances (e.g., gravel pads) and wash stations will be placed at access points to prevent tracking out of or dispersion of dust.

All work that involves soil disturbance or otherwise generates dust will be performed utilizing methods to minimize dust generation to the extent practicable. Particulate air monitoring requirements will be conducted as discussed in Section 3.6 of this SMMP.

3.6 Work Zone Air Monitoring

In the event that soil contamination is encountered during construction, a PID and particulate monitor will be used to monitor the work zone during ground intrusive activities (as required for redevelopment). Measurements will be taken prior to commencement of work and continuously during the work as outlined in the following table. Measurements will be made as close to the workers as practicable. Particulate and PID measurements will be collected at the breathing height of the workers. The Site Safety Officer (SSO) shall set up the equipment and confirm that it is working properly. His/her designee may oversee the air measurements during the day. The initial measurement for the day will be performed before the start of work and will establish the back-ground level for that day. The final measurement for the day will be performed after the end of work. The action levels and required responses are listed in the following table:

Instrument	Action Level	Response Action
PID	Less than 5 ppm in breathing zone	Level D or D-Modified
	Between 5 ppm and 50 ppm	Level C
	More than 50 ppm	Stop work. Resume work when readings are less than 50 ppm.
Dust Trak	Less than 0.125 mg/m^3 above background in breathing zone	Level D or D-Modified
	Between 0.125 mg/m^3 and 0.15 mg/m^3 above background in breathing zone	Apply dust suppression measures in work zone (i.e., minimum of spraying down work areas with water, other measures to be determined based on particulate-generating activity).
	Greater than 0.15 mg/m^3 above background in breathing zone	Stop work. Apply additional dust suppression measures. Resume work when readings are less than 0.15 mg/m^3 above background.
mg/m^3 = milligrams per cubic meter ppm = parts per million		

Field personnel will be trained in the proper operation of all field instruments at the start of the field program. The equipment will be calibrated according to manufacturer specifications at the start of each day of fieldwork. If an instrument fails calibration, the project manager will be contacted immediately to obtain a replacement instrument and arrange for repairs. The PID will be calibrated each day using 100 ppm isobutylene standard gas.

3.7 Community Air Monitoring Plan (CAMP)

During any on-site soil disturbance activities conducted in areas with identified soil contamination, an air monitoring program will be implemented to avoid or minimize exposure of the field personnel and the public to potential environmental hazards. Results of this air monitoring will be used to determine appropriate response actions. The air monitoring, if necessary, will be conducted in accordance with the requirements of the New York State Department of Health Generic Community Air Monitoring Plan and Section 7.0 of the CHASP, included as Appendix A, as detailed below.

VOC Monitoring, Response Levels, and Actions

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

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

If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring

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

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

All 15-minute readings will be recorded, as required, and be available for personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will initially be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of averaging over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will 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.

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

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

4.0 PROJECT DESIGN AND REGULATORY MEASURES

4.1 Importation of Fill

Any non-virgin soil or fill materials to be imported to the Site as part of construction must be tested at the source facility for Target Compound List (TCL) VOCs, SVOCs, pesticides, PCBs, and Target Analyte List (TAL) metals (at a frequency of one composite sample per 500 cubic yards,). Pertinent clean soil/fill testing activities will be documented and submitted to the Hudson Highland Fjord Trail, Inc., including a narrative of the field/testing activities, laboratory data, and comparison of soil analytical results (i.e., to the cleanup objectives in NYSDEC 6 NYCRR Part 375 Environmental Remediation Programs).

4.2 Dewatering

If dewatering is required for construction of the proposed project, a proper discharge permit in accordance with local, county and state requirements will be obtained prior to the start of any de-watering activities at the site.

4.3 Regulatory Spill Reporting

Any oil spill that causes a sheen or visible layer of oil on a U.S. Navigable waterway will be reported to the National Response Center (NRC) 24-hour hotline at (800) 424-8802. **Spills must be reported immediately upon discovery.** Contacting the NRC satisfies the federal requirement for notifying both the USEPA and the U.S. Coast Guard. Personnel with knowledge of the spill are responsible for making this notification.

As per 40 CFR 112.7(a)(4), when reporting a spill, the following information must be supplied:

- The exact address or location and phone number of the facility;
- The date and time of the discharge;
- The type of material discharged;
- Estimates of the total quantity discharged;
- The source of the discharge;
- A description of all affected media;
- The cause of the discharge;
- Any damages or injuries caused by the discharge;
- The actions being used to stop, remove, and mitigate the effects of the discharge;
- Whether an evacuation may be needed; and
- The names of individuals and/or organizations who have also been contacted.

In addition, individual petroleum spills must be reported to the NYSDEC **within 2 hours of discovery** unless they meet all of the following criteria:

- The spill is known to be less than 5 gallons;
- The spill is contained and under the control of the spiller;
- The spill has not and will not reach the State's water or any land; and
- The spill is cleaned up within 2 hours of discovery.

To report a spill to the NYSDEC, call the NYSDEC Spill Hotline **(800) 457-7362** or **(518) 457-7362** (from outside NY State).

In the event that a dangerous condition has arisen as a result of a release, the fire and police departments should be notified as necessary by calling **911**.

4.4 Metro-North Railroad (MNR) Properties

Given that the proposed location of much of Fjord Trail South would be within the MNR right-of-way, all construction work that would be within MNR right-of-way or has the potential to affect the railroad would be performed in accordance with requirements of MNR, including but not limited to MNR's Soil and Spill Specifications. Additionally, review/approval of contractor work plans by MNR are required prior to construction. A minimum distance of 25 feet would be maintained between construction activity and the centerline of the MNR tracks, in accordance with MNR requirements.

4.5 Voluntary/Brownfield Cleanup Program (VCP/BCP) Sites

Based on the environmental review discussed in Section 2.2, the proposed development of the Site may include work in the following NYSDEC Voluntary Cleanup Program (VCP)/Brownfield Cleanup Program (BCP) remedial site:

- Garret Storm, Inc./Long Dock Park, Beacon, NY (NYSDEC Site No. C314112)

If construction of the trail involves soil disturbance within the identified or future VCP/BCP sites, such activities would be required to be conducted in consultation with NYSDEC and in accordance with DEC-approved remediation and/or site management plans. More specifically, any activities that would disturb remaining contamination at NYSDEC Site No. C314112 will be performed in accordance with the approved Site Management Plan and the Excavation Work Planfor that site.

5.0 SITE-SPECIFIC SOIL AND MATERIALS MANAGEMENT PLAN

The proposed Fjord Trail is planned to be constructed in four phases. While sections of Fjord Trail North and Fjord Trail South would be constructed simultaneously, some portions would be completed before others and the trail would open incrementally, with completion of all phases anticipated by 2031, as described further below.

Construction of Fjord Trail North is anticipated to be completed in three phases, each about 24 to 36 months, and would begin with tree clearing and grubbing along the proposed trail alignment followed by trail installation, including grading, installation of stormwater management features (as needed), paving, hardscape improvements, and landscaping.

Construction of Fjord Trail South would occur in one phase and is proposed to use three different construction methods:

- Waterside construction facilitated from barges for the northern portion that would be on an elevated structure along the Hudson River shoreline from the Lower Overlook to about midway to Little Stony Point;
- On-grade construction from that midpoint south to Little Stony Point and within Little Stony Point, as well as the proposed Lower Overlook; and
- Top-down construction, for the southern section that would be on an elevated structure along the Hudson River shoreline between Little Stony Point and Dockside Park, where construction would occur from the elevated on-structure trail itself as it is built.

Development of the Project will involve excavation/disturbance of existing fill and soil. Prior to commencement of each development phase, an addendum to this SMMP with site-specific details about the individual construction sites/areas will be submitted to Hudson Highland Fjord Trail, Inc. for review and approval. These addenda would address site-specific issues including, but not limited to:

- Plans for working in areas of concern identified by the previous investigation and environmental assessments discussed in Section 2.2;
- Site-specific construction design measures and development plans;
- The proposed soil testing and disposal plans discussed in Section 3.0;
- Site-specific stormwater management and sediment erosion and control plans;
- Emergency response contacts and procedures, including by completing the information and route map to the nearest hospital in Section 9.2 of Appendix A – *Construction Health and Safety Plan* (CHASP).

While final construction phasing would be determined during final design, the anticipated phasing plan for construction of the proposed Fjord Trail is summarized in the following table. The extent of the scope of each individual site-specific SMMP would be based on, but not necessarily be limited to, the areal extent of specific construction plans/areas, the specific contractors working in each section of construction, and the construction phasing schedule. Such plans should be devised in consultation with Hudson Highlands Fjord Trail, Inc.

Construction Phase	Components	Anticipated Timeline (approx.)
Fjord Trail North		
PHASE 1	• Main Trail from BNCB to Bannerman Island Overlook • Meander to Bannerman Island Overlook • Wade's Hill Lot • Connector from Wade's Hill Lot to existing Wilkinson Memorial Trail • Maintenance Facility	2025 to 2026
PHASE 2	• Main Trail from Bannerman Island Overlook to Notch Entry • Connector to Dutchess Manor • Connector to Notch Entry • Parking Area and Restroom Buildings at Notch	2026 to 2029
PHASE 3	• Main Trail Notch Entry to Long Dock Park, including Pedestrian/Bicycle Bridge over Fishkill Creek • Meanders at Denning's Point and Madam Brett Park • Restroom Buildings at Long Dock Park and Denning's Point	2027 to 2029
Fjord Trail South		
PHASE 4	• Main Trail (elevated on structure) from BNCB to Little Stony Point • Main Trail (on boardwalk and on-grade) in Little Stony Point • Main Trail (elevated on structure) from Little Stony Point to Dockside Park • Lower Overlook • Meanders in Little Stony Point • Restroom Buildings at Little Stony Point • Washburn Lot expansion	2026 to 2031*
*** Note:** Construction would not be continuous during this timeframe due to in-water work restrictions from March to June.		

6.0 RECORDKEEPING

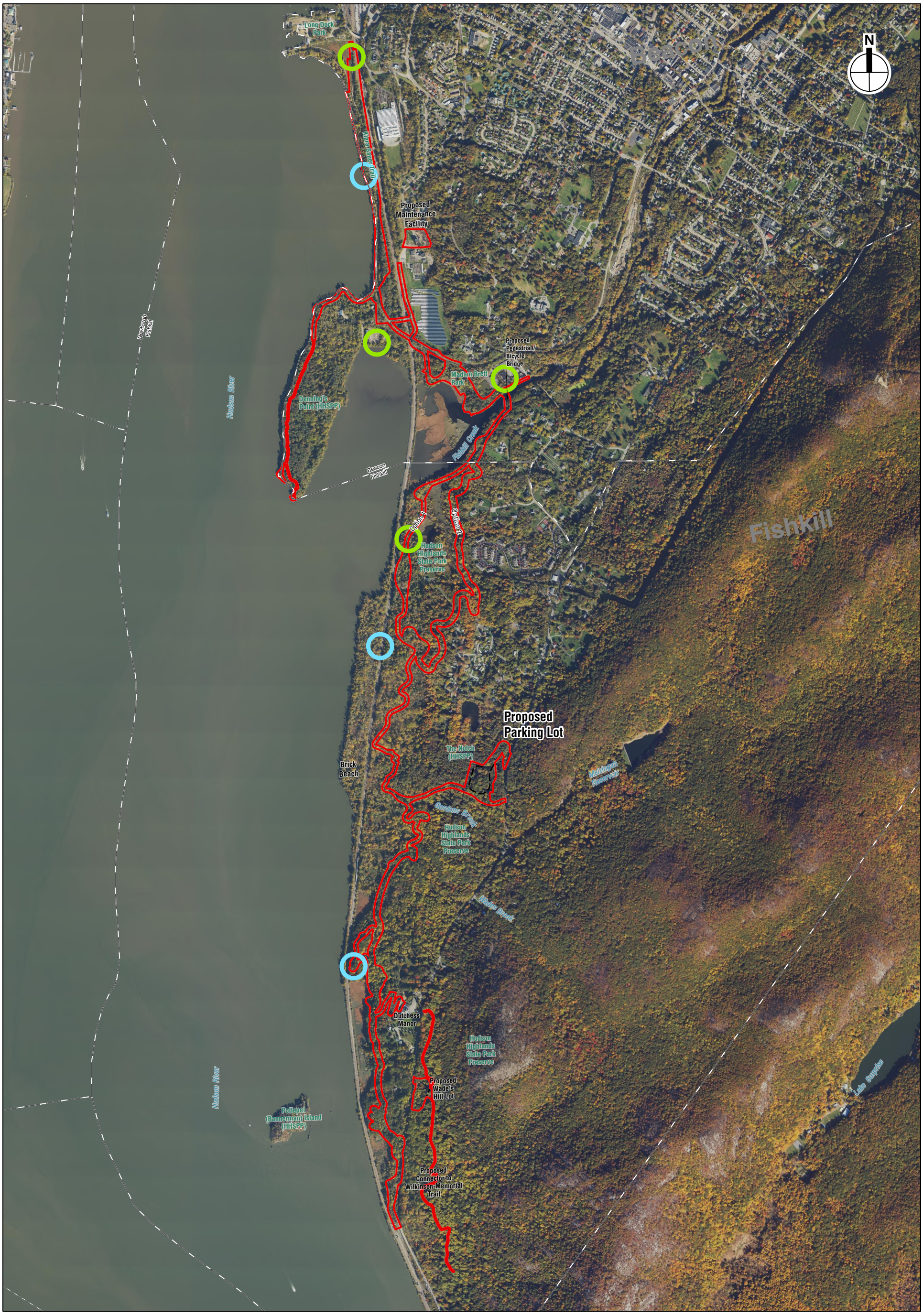
Upon completion of the excavation and subsurface disturbance activities associated with the proposed Fjord Trail project, all documentation regarding soil and materials management will be presented to Hudson Highland Fjord Trail, Inc., including, but not limited to, all transportation manifests, soil disposal/recycling certificates, proof of importing and grading certified clean fill/top soil, and any soil analytical testing results for soil disposal and the imported fill/top soil (as applicable). If applicable, copies of all pertinent NYSDEC correspondences, investigative/remedial work plans, reports, tank closure reports, No Further Action letters, etc. related to a spill or release will be provided.

The site-specific SMMP's described in Section 5.0 should include, at a minimum, a recordkeeping procedure for the following documents:

- Permits for all disposal facilities used for the project and the excavation and off-site transportation and disposal plans for each soil disposal and generation of waste, if any.
- All material shipment records/manifests/bills of lading required by the Federal Resources Conservation and Recovery Act (RCRA) (Public Law 94-580), the State of New York and the state where the disposal facility is located.
- Documentation, receipts, source information, etc. for any material imported to the Site.
- Any EPA hazardous waste generator identification numbers, if necessary.

FIGURES

9.22.24



Trail Corridor - Fjord Trail North

0 2,000 FEET

AOC #1 Historic Industrial Uses

Potential releases or buried wastes from former manufacturing, lumber yards, coal and petroleum storage, etc.

AOC #2 Railroad Operations

Potential contamination or buried wastes from track ballasts, railroad ties, track maintenance, transformers, etc.

AOC #3 Historic Fill (Site-wide)

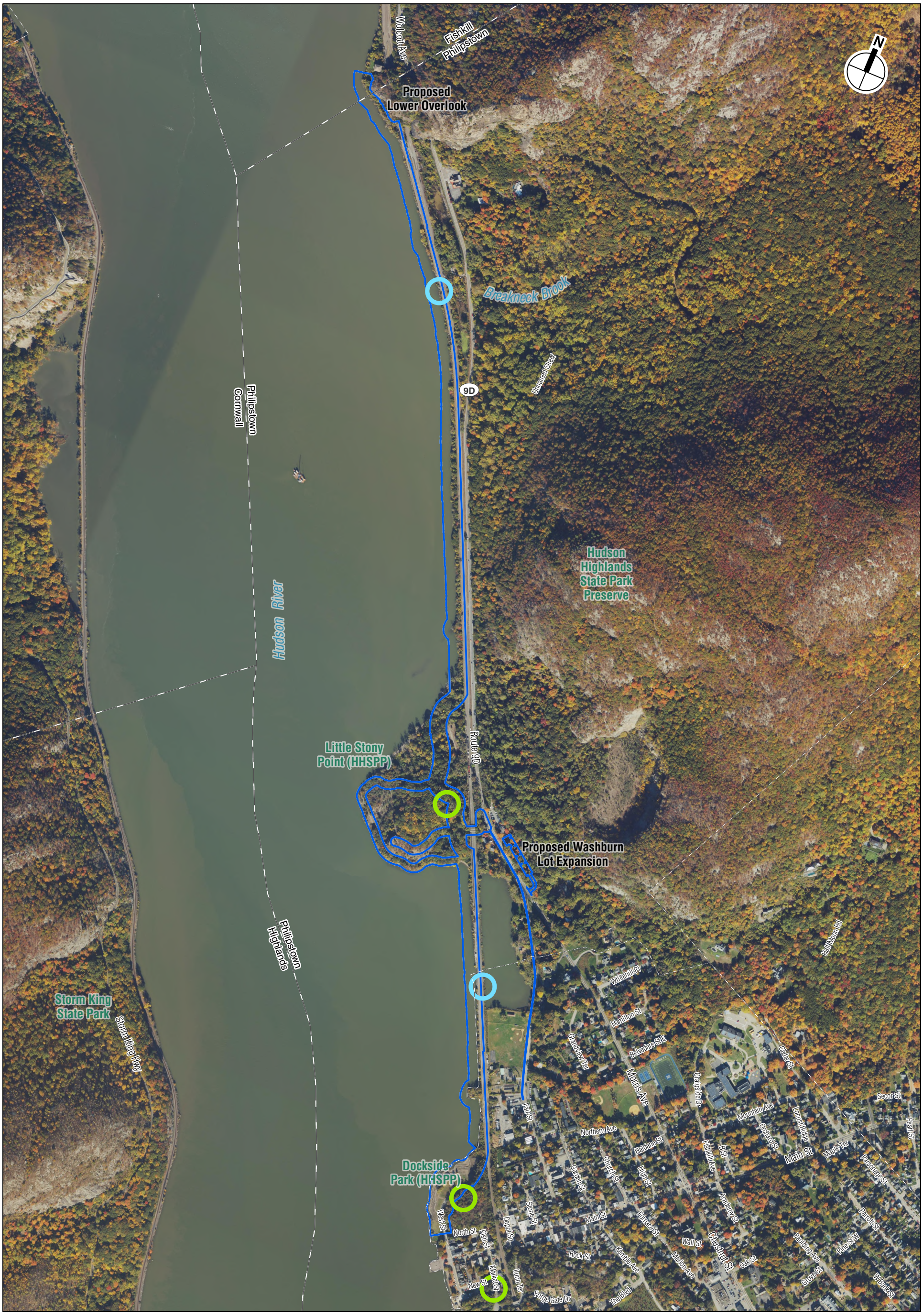
Potential historic buried material of an unknown origin associated with infilling, residential, railroad and industrial construction and operations.

HUDSON HIGHLANDS FJORD TRAIL

Hazardous Materials

Figure 1

9.22.24



Trail Corridor - Fjord Trail South

0 2,000 FEET

AOC #1 Historic Industrial Uses

Potential releases or buried wastes from former manufacturing, lumber yards, coal and petroleum storage, etc.

AOC #2 Railroad Operations

Potential contamination or buried wastes from track ballasts, railroad ties, track maintenance, transformers, etc.

AOC #3 Historic Fill (Site-wide)

Potential historic buried material of an unknown origin associated with infilling, residential, railroad and industrial construction and operations.

HUDSON HIGHLANDS FJORD TRAIL

Hazardous Materials

Figure 2

APPENDIX A

CONSTRUCTION HEALTH AND SAFETY PLAN

Hudson Highlands Fjord Trail

PUTNAM & DUTCHESS COUNTIES

NEW YORK

Construction Health and Safety Plan

AKRF Project Number: 220233

Prepared for:

Hudson Highlands Fjord Trail, Inc.
85 Civic Center Plaza, Suite 300
Poughkeepsie, York, New York 12601

Prepared by:

AKRF, Inc.
34 South Broadway
White Plains, NY 10601
914-949-7336

NOVEMBER 2024

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1.0 PURPOSE

AKRF, Inc. (AKRF) has prepared this Construction Health and Safety Plan (CHASP) for the proposed Hudson Highlands Fjord Trail project (the "Fjord Trail" or the "Project"), which will be a non-motorized, shared-use (pedestrian and bicycle), publicly accessible linear park, generally along the Hudson River between the City of Beacon (Dutchess County) at its northern end and the Village of Cold Spring (Putnam County) at its southern end. The Site, shown on Figures 1 and 2, is within the Hudson Highlands area of the Hudson Valley region of New York State, an area of low mountains generally between the City of Peekskill to the south and the Cities of Beacon and Newburgh to the north. The Hudson Highlands are a series of ridges and valleys divided by the Hudson River, which flows through a steep-sided fjord carved by glaciers.

The proposed Fjord Trail would include development of a Main Trail, Trail Meanders, Trail Banks, Water Trail Connections, Regional Trail connections, new and expanded parking areas, restroom buildings, and a maintenance facility. For the purposes of the Generic Environmental Impact Statement (GEIS) prepared to receive necessary agency approvals in accordance with the New York State Environmental Quality Review Act (SEQRA), the project is discussed as two sections: the Fjord Trail North Corridor and the Fjord Trail South Corridor. The proposed Fjord Trail North section would extend about 5.5 miles from Long Dock Park in Beacon to the Breakneck Connector and Bridge (BNCB). Fjord Trail North would connect a number of existing recreational resources, including Long Dock Park, the Klara Sauer Trail, Denning's Point, Madam Brett Park, The Notch, and Bannerman Island. The proposed Fjord Trail South section would extend about 2 miles from the southern end of the BNCB to Dockside Park in the Village of Cold Spring. Fjord Trail South would connect to existing recreational resources, including Breakneck Ridge and trails in the Hudson Highlands State Park Preserve (HHSPP) (within the Town of Fishkill) via the BNCB, Little Stony Point, the Washburn Trail, and the Cornish Trail, and Dockside Park.

It is anticipated that the proposed construction would require ground disturbance and excavation in areas adjacent to former industrial uses (some with documented subsurface contamination) and/or historic or current railroad operations, including the Metro-North Railroad (MNR) Hudson Line and the inactive Beacon Line railbed between Denning's Point and Madam Brett Park.

The purpose of this CHASP is to assign responsibilities, establish personnel protection standards and mandatory safety practices and procedures, and provide for contingencies that may arise during construction activities. The CHASP is intended to minimize health and safety risks resulting from the known or potential presence of subsurface hazardous materials. In particular, Section 9.2 and 9.3 should be updated for each site-specific Soil and Materials Management Plan (SMMP) prepared for the Project.

This plan is not designed to address geotechnical, mechanical or general construction safety concerns, nor to supersede or replace any Occupational Safety and Health Administration (OSHA) regulation and/or local and state construction codes or regulations.

2.0 APPLICABILITY

It is anticipated that the proposed construction would require excavation and soil disturbance. Work subject to this CHASP includes all activities that disturb the existing soil on-site. The contractors and their subcontractors involved in the proposed Project will provide a copy of this CHASP to their employees whose work involves any potential exposure to on-site soil and will complete all work in accordance with this CHASP.

The proposed Fjord Trail is planned to be constructed in four phases. While sections of Fjord Trail North and Fjord Trail South would be constructed simultaneously, some portions would be completed before others and the trail would open incrementally, with completion of all phases anticipated by 2031. Prior to commencement of each development phase, an addendum to this SMMP/CHASP [per Section 5.0 of the associated Soil and Materials Management Plan (SMMP)] with site-specific details about the individual construction sites/areas will be submitted to Hudson Highland Fjord Trail, Inc. for review and approval prior to conducting the investigations or commencing with development activities. These addenda would address site-specific issues including, but not limited to, areas of concern identified by any available previous investigations and environmental assessments, site-specific construction design measures, and emergency response contacts and procedures. If elements of the construction plan for a specific area of the Fjord Trail is not covered by this CHASP, it should be included in a SMMP addendum in consultation with Hudson Highlands Fjord Trail, Inc.

3.0 SITE DESCRIPTION

3.1 General Information

The Fjord Trail would be partially within the HHSPP, which is owned and managed by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), and would extend through other public and private lands.

Fjord Trail North Corridor

The existing conditions of the Fjord Trail North Corridor vary along the Hudson River shoreline. Areas along the northern portion of the Fjord Trail North Corridor are bounded by marshland and densely wooded areas, existing recreational trails, and interspersed waterfront public access areas, including Long Dock Park and Denning's Point. Areas along the southern portion of the Fjord Trail North Corridor include residential uses, Dutchess Manor, and HHSPP. Additional waterfront areas (some currently with limited public access) are present between the Notch (HHSPP) and the Metro-North Railroad (MNR) Beacon train station, and trails near Fishkill Creek in the vicinity of the former Tioronda Hat Works facility and within Madam Brett Park. Railroad tracks, including the MNR Hudson Line commuter railroad tracks, are located adjacent to the Fjord Trail North Corridor in several areas, and an inactive rail line is present along the northern portion of the Fjord Trail North Corridor near Denning's Point and Madam Brett Park.

Based on U.S. Geological Survey mapping (West Point, Cornwall-on-Hudson, Wappingers Falls, Poughkeepsie and Newburgh, NY Quadrangles dated 2013), the project area elevations range between generally less than 10 to roughly 380 feet above mean sea level.

Several areas of bedrock outcrops are present along the Fjord Trail North Corridor and along the waterfront, and USGS mapping indicated that bedrock beneath the Fjord Trail North Corridor consists of pyroxene-hornblende-quartz-plagioclase gneiss; hornblende granite and granite gneiss; and Austin Glen Formation. Soil beneath the Fjord Trail North Corridor includes well drained to somewhat excessively well drained soils, low water tables [except for the Hy Soil located around the Metro-North Railroad (MNR) Breakneck Ridge train station] and deep bedrock, except for the occasional outcrops. The areas of the Fjord Trail North Corridor located within parks (HHSPP and Madam Brett Park) are mostly characterized by soils of Farmland Statewide Significance. The areas of Fjord Trail North Corridor within Beacon mostly consist of urban fill. Groundwater is anticipated to be first encountered at an elevation at or near the high tide level and is likely tidally influenced in areas close to the Hudson River shoreline. For areas inland, depth to the water table is anticipated to range between zero and 6.5 feet below ground surface (bgs).

Fjord Trail South Corridor

The majority of the Fjord Trail South Corridor is situated within or adjacent to the MNR right-of-way and along the Hudson River shoreline. Wooded hiking trails with scenic riverfront viewing areas are present on Little Stony Point (HHSPP), and Dockside Park (HHSPP; owned by OPRHP and managed by the Village of Cold Spring) consists of a municipal open area park with primarily landscaped grass-covered areas along the riverfront. The Fjord Trail South Corridor also includes portions of West Street, Main Street, and Fair Street, which meets NYS Route 9D at a wide intersection. Much of the Fjord Trail South Corridor encompasses the MNR ballast and rip-rap along the Hudson River shoreline.

The project area ground surface elevations range between the water level of the Hudson River (tidal in this area) to roughly 45 feet above mean sea level on Little Stony Point. Several areas of bedrock outcrops are present along the Fjord Trail South Corridor, including at Little Stony Point and Breakneck Ridge. Information included in the initial review and analysis report and USGS mapping indicated that bedrock beneath the Fjord Trail South Corridor is composed of hard granites and

gneisses, with softer biotites and gneisses present beneath Cold Spring. Soil along the Trail Corridor includes loam with varying amounts of sand and gravel. Certain areas are shallow to bedrock with bedrock outcrops, exposed boulders, and gravel. In the Fjord Trail South Corridor along the shoreline and in the MNR right-of-way, these areas are almost entirely comprised of fill and at the surface are covered with rip-rap, crushed stone, and railroad ballast. Groundwater is anticipated to be first encountered at an elevation at or near the high tide level and is likely tidally influenced in areas close to the Hudson River shoreline.

3.2 Hazard Evaluation

To identify potential sources of subsurface hazardous materials, this assessment included: a review of historical land use maps (e.g., Sanborn maps), historical topographic maps and aerial photographs; and a review of state and federal regulatory databases relating to use, generation, storage, treatment and/or disposal of hazardous materials. The databases searched were generally in accordance with the American Society for Testing and Materials (ASTM) Designation E 1527-21 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-21). This information included records from databases maintained by the U.S. Environmental Protection Agency (USEPA) and New York State Department of Environmental Conservation (NYSDEC).

Based on the assessment, the most likely routes of exposure are breathing of volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, pesticides, PCBs, petroleum-related compounds, or particulate-laden air released during soil disturbing activities, dermal contact, and accidental ingestion. Such contaminants may potentially be at concentrations above the Unrestricted Use Soil Cleanup Objectives (UUSCOs) and/or Restricted Residential Soil Cleanup Objectives (RRSCOs). Appendix A includes specific health effects from chemicals present or potentially present on-site. Potential chemicals of concern listed in the following sections are included here as a precaution. The remaining sections of this CHASP address procedures (including training, air monitoring, work practices and emergency response) to reduce the potential for unnecessary and unacceptable exposure to these contaminants.

The potential adverse health effects from these detected contaminants are diverse. Many of these compounds are known or suspected to result in chronic illness from long-term exposures. However, due to the limited nature of the proposed construction, only acute effects are a potential concern. This CHASP addresses potential environmental hazards from the presence of hazardous materials. It is not intended to address the normal hazards of construction work, which are separately covered by OSHA regulations and/or local and state construction codes and regulations.

3.2.1 Hazards of Concern

Check all that apply		
(x) Organic Chemicals	(x) Inorganic Chemicals	( ) Radiological
( ) Biological	( ) Explosive/Flammable	( ) Oxygen Deficient Atm.
(x) Heat Stress	(x) Cold Stress	( ) Other
Comments: No personnel are permitted to enter permit-required confined spaces		

3.2.2 Physical Characteristics

Check all that apply		
(x) Liquid	(x) Solid	( ) Sludge
(x) Vapors	( ) Unknown	( ) Other
Comments:		

3.2.3 Hazardous Materials

Check all that apply					
Chemicals	**Solids**	**Sludges**	**Solvents**	**Oils**	**Other**
( ) Acids	( ) Ash	( ) Paints	( ) Halogens	( ) Transformer	( ) Lab
( ) Caustics	(x) Asbestos	(x) Metals	(x) Petroleum	( ) Other DF	( ) Pharm.
(x) Pesticides	( ) Tailings	( ) POTW	(x) Other - Chlorinated	(x) Motor or Hydraulic Oil	( ) Hospital
(x) Petroleum	(x) Other: Fill Material	( ) Other – Tars & Other NAPL		(x) Gasoline	( ) Rad.
( ) Inks				(x) Fuel Oil	(x) MGP
(x) PCBs					( ) Mold
(x) Metals					( ) Cyanide
(x) Other: VOCs, SVOCs					

3.2.4 Potential Chemicals of Concern

Chemical	REL/PEL/STEL	Health Hazards
Arsenic	REL= 0.002 mg/m^3 PEL= 0.010 mg/ m3	Irritation skin, possible dermatitis; respiratory distress; diarrhea; kidney damage; muscle tremor, convulsions; possible gastrointestinal tract, reproductive effects; possible liver damage
Barium	REL = 0.5 mg/m^3 PEL = 0.5 mg/m^3	Gastrointestinal disturbances and muscular weakness, vomiting, abdominal cramps, diarrhea, difficulties in breathing, increased or decreased blood pressure, numbness around the face, and muscle weakness
Benzene	REL = 0.1 ppm PEL = 1 ppm STEL = 5 ppm	Irritation eyes, skin, nose, respiratory system; dizziness; headache, nausea, staggered gait; anorexia, lassitude, dermatitis; bone marrow depression, potential occupational carcinogen.
Copper	REL: 1 mg/m^3 PEL: 1 mg/m^3	Irritation eyes, nose, pharynx; nasal septum perforation; metallic taste; dermatitis; In Animals: lung, liver, kidney damage; anemia.
DDD, DDE, & DDT (pesticides)	REL: 0.5 mg/m^3 PEL: 1 mg/m^3	Irritation eyes, skin; paresthesia tongue, lips, face; tremor; anxiety, dizziness, confusion, malaise (vague feeling of discomfort), headache, lassitude (weakness, exhaustion); convulsions; paresis hands; vomiting; [potential occupational carcinogen].
Fuel Oil	REL = 350 mg/m^3 PEL = 400 ppm	Nausea, irritation – eyes, hypertension, headache, light-headedness, loss of appetite, poor coordination; long-term exposure – kidney damage, blood clotting problems; potential carcinogen.
Lead	REL: 0.050 mg/m^3 PEL:0.050 mg/m^3	Lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypertension.

Chemical	REL/PEL/STEL	Health Hazards
Mercury	REL: 0.05 mg/m^3 REL C: 0.1 mg/m^3 PEL: 0.1 mg/m^3	Irritation eyes, skin; cough, chest pain, dyspnea (breathing difficulty), bronchitis, pneumonitis; tremor, insomnia, irritability, indecision, headache, lassitude (weakness, exhaustion); stomatitis, salivation; gastrointestinal disturbance, anorexia, weight loss; proteinuria.
Nickel	REL: 0.015 mg/m^3 PEL: 1 mg/m^3	Sensitization dermatitis, allergic asthma, pneumonitis; [potential occupational carcinogen].
PAHs	REL: 0.1 mg/m^3 PEL: 0.2 mg/m^3	Effects reported from occupational exposure to PAHs include chronic bronchitis, chronic cough irritation, bronchogenic cancer, dermatitis, cutaneous photosensitization, and pilosebaceous reactions. Reported health effects associated with chronic exposure to coal tar and its by-products (e.g., PAHs): Skin: erythema, burns, and warts on sun-exposed areas with progression to cancer. The toxic effects of coal tar are enhanced by exposure to ultraviolet light. Eyes: irritation and photosensitivity. Respiratory system: cough, bronchitis, and bronchogenic cancer. Gastrointestinal system: leukoplakia, buccal-pharyngeal cancer, and cancer of the lip. Hematopoietic system: leukemia (inconclusive) and lymphoma. Genitourinary system: hematuria and kidney and bladder cancers.
Particulate	PEL = 15 mg/m^3 (total) PEL = 5 mg/m^3 (respirable)	Irritation eyes, skin, throat, upper respiratory system
PCBs	REL = 0.001 mg/m^3 PEL = 0.5 mg/m^3 (skin)	Irritation eyes, chloracne; liver damage; reproductive effects; [potential occupational carcinogen].
Tetrachloroethylene (PCE)	PEL: 100 ppm PEL C: 200 ppm; max peak: 300 ppm	Irritation eyes, skin, nose, throat, respiratory system; nausea; flush face, neck; dizziness, incoordination; headache, drowsiness; skin erythema (skin redness); liver damage; [potential occupational carcinogen].
Trichloroethene (TCE)	PEL = 100 ppm	Irritation lung; headaches, dizziness, poor coordination and difficulty concentrating; kidney and liver damage, impaired heart function; impaired immune system function and fetal development in pregnant women [potential occupational carcinogen].
Zinc	REL: 5 mg/m^3 REL C: 15 mg/m^3 N STEL: 10 mg/m^3 PEL: 5 mg/m^3 (ZnO fume); 15 mg/m^3 (ZnO dust)	Chills, elevated body temperature, myalgia, cough, fatigue, chest pain, stomach cramps, nausea, anemia, changes in cholesterol levels, and vomiting.
Notes: REL: Recommended exposure limit (NIOSH) PEL: Permissible exposure limits (OSHA) STEL: Short-term exposure limit N: NIOSH O: OSHA C: Ceiling		

3.3 Designated Personnel

Site contractor or engineer will appoint one of its on-site personnel as the Site Safety Officer (SSO). This individual will be responsible for the implementation of the CHASP. The SSO will have a 4-year college degree in occupational safety or a related science/engineering field, and experience in implementation of air monitoring and hazardous materials sampling programs. Health and safety training required for the SSO are outlined in Section 3.4 of this CHASP.

3.4 Training

The SSO should have an applicable OSHA certificate for the type of construction work being conducted. The SSO should conduct training that allows workers and personnel to recognize and understand the potential hazards to health and safety outlined in this plan. All field personnel must attend a training program, whose purpose is to:

- Make them aware of the potential hazards they may encounter;
- Provide the knowledge and skills necessary for them to perform the work with minimal risk to health and safety; Make them aware of the purpose and limitations of safety equipment; and
- Ensure that they can safely avoid or escape from emergencies.

Each member of the field crew will be instructed in these objectives before he/she goes onto the Site. A site safety meeting will be conducted at the start of the project. Additional meetings shall be conducted, as necessary, for new personnel working at the Site.

Anyone working with hazardous materials should have an appropriate OSHA certificate for handling hazardous materials [e.g., OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER)].

3.5 Medical Surveillance Program

All personnel performing field work involving subsurface disturbance in areas of known hazardous materials at the Site as described in 29 CFR 1910.120(a)(1)(i-v) and 1926.65(a)(1)(i-v) are required to have passed a complete medical surveillance examination in accordance with 29 CFR 1910.120 (f). A physician's medical release for work will be confirmed by the SSO before an employee can begin site activities. The medical release shall consider the type of work to be performed and the required personal protective equipment (PPE). The medical examination will, at a minimum, be provided annually and upon termination of hazardous waste site work.

3.6 Site Work Zones

During any activities involving subsurface disturbance where obvious signs of contamination is discovered, the work area must be divided into various zones to prevent the spread of contamination, ensure that proper protective equipment is donned, and provide an area for decontamination.

The Exclusion Zone is defined as the area where exposure to impacted media could be encountered. The Contamination Reduction Zone (CRZ) is the area where decontamination procedures take place and is located next to the Exclusion Zone. The Support is the zone area where support facilities such as vehicles, fire extinguisher, and first aid supplies are located. The emergency staging area (part of the Support Zone) is the area where all workers on-site would assemble in the event of an emergency. A summary of these areas is provided below. These zones may changed by SSO, depending on that day's activities. All field personnel will be informed of the location of these zones before work begins.

Task	Exclusion Zone	CRZ	Support Zone
Soil Disturbance, Excavation and Digging	10 ft from excavator or drill rig	25 ft from excavator or drill rig	As Needed
Comments: Control measures such as "caution tape" and/or traffic cones will be placed around the perimeter of the work area when work is being done in a public area.			

4.0 HEALTH AND SAFETY OFFICER

The contractor or engineer will designate one of its personnel as the Site Safety Officer (SSO). The SSO will be a competent person responsible for the implementation of this plan who is familiar with the requirements outlined in this plan. The SSO should have stop-work authorization, which he/she will execute on his/her determination of an imminent safety hazard, emergency situation, or other potentially dangerous situation. If the SSO must be absent from the Site, he/she will designate a suitably qualified replacement that is familiar with the CHASP.

5.0 TRAINING

All those who enter the work area while intrusive activities are being performed must recognize and understand the potential hazards to health and safety. All construction personnel upon entering the Site must attend a brief training meeting, its purpose being to:

- Make workers aware of the potential hazards they may encounter;
- Instruct workers on how to identify potential hazards;
- Provide the knowledge and skills necessary for them to perform the work with minimal risk to health and safety;
- Make workers aware of the purpose and limitations of safety equipment; and
- Ensure that they can safely avoid or escape from emergencies.

Each member of the construction crew will be instructed in these objectives before he/she goes onto the Site. Construction personnel will be responsible for identifying potential hazards in the work zone. The SSO or other suitably trained individual will be responsible for conducting the training program. Others who enter the Site must be accompanied by a suitably trained construction worker.

6.0 GENERAL WORK PRACTICES

To protect the health and safety of the field personnel, all field personnel will adhere to the guidelines listed below during activities involving subsurface disturbance in contaminated areas.

- Eating, drinking, chewing gum or tobacco, and smoking are prohibited, except in designated areas. These areas will be designated by the SSO.
- Workers must wash their hands and face thoroughly on leaving the work area and before eating, drinking, or any other such activity. The workers should shower as soon as possible after leaving the Project area.
- Contact with contaminated or suspected surfaces should be avoided.
- The buddy system should always be used; each buddy should watch for signs of fatigue, exposure, and heat stress.

7.0 PERSONAL PROTECTIVE EQUIPMENT & AIR MONITORING

7.1 Personal Protective Equipment

The personal protection equipment required for various kinds of construction tasks conducted once contamination is discovered are based on 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response, Appendix B, "General Description and Discussion of the Levels of Protection and Protective Gear."

During the implementation of air monitoring, if deemed appropriate by the SSO, site personnel will wear, at a minimum, Level D personal protective equipment. The protection will be based on the air monitoring described in Section 7.2.

LEVEL OF PROTECTION & PPE		Excavation/ Sampling
Level D (**X**) Steel Toe Shoes (**X**) Hard Hat (within 25 ft of drill rig) (**X**) Work Gloves	(**X**) Safety Glasses ( ) Face Shield (**X**) Ear Plugs (within 25 ft of drill rig) (**X**) Nitrile Gloves (**X**) Tyvek for drill rig operator if NAPL present	Yes
Level C *(in addition to Level D)* (**X**) Half-Face Respirator OR (**X**) Full Face Respirator ( ) Full-Face PAPR	( ) Particulate Cartridge ( ) Organic Cartridge (**X**) Dual Organic/ Particulate Cartridge	If PID > 10 ppm (breathing zone)
Comments: Cartridges to be changed out at least once per shift unless warranted beforehand (e.g., more difficult to breathe or any odors detected).		

7.2 Work Zone Air Monitoring

In the event that contamination is discovered, real time air monitoring will be performed with a photoionization detector (PID) and particulate air monitor during excavation and ground disturbance activities required for the redevelopment. Measurements will be taken prior to commencement of work and continuously during the work as outlined in the following table. Measurements will be made as close to the workers as practicable and at the breathing height of the workers. The SSO will set up the equipment and confirm that it is working properly. His/her designee may oversee the air measurements during the day. The initial measurement for the day will be performed before the start of work and will establish the background level for that day. The final measurement for the day will be performed after the end of work. The action levels and required responses are listed in the following table.

Instrument	Action Level	Response Action
PID	Less than 5 ppm in breathing zone	Level D or D-Modified
	Between 5ppm and 50 ppm	Level C
	More than 50 ppm	Stop work. Resume work when readings are less than 50 ppm.

Instrument	Action Level	Response Action
Dust Trak	Less than 0.125 mg/m^3 above background in breathing zone	Level D or D-Modified
	Between 0.125 mg/m^3 and 0.15 mg/m^3 above background in breathing zone	Apply dust suppression measures in work zone (i.e., minimum of spraying down work areas with water, other measures to be determined based on particulate-generating activity).
	Greater than 0.15 mg/m^3 above background in breathing zone	Stop work. Apply additional dust suppression measures. Resume work when readings are less than 0.15 mg/m^3 above background.
mg/m^3 = milligrams per cubic meter ppm = parts per million		

Field personnel will be trained in the proper operation of all field instruments at the start of the field program. The equipment will be calibrated according to manufacturer specifications at the start of each day of fieldwork. If an instrument fails calibration, the project manager will be contacted immediately to obtain a replacement instrument and arrange for repairs. The PID will be calibrated each day using 100 parts per million (ppm) isobutylene standard gas.

7.3 Community Air Monitoring Plan

During all on site soil disturbance activities where contamination above applicable RRSCOs is discovered, an air monitoring program will be implemented to avoid or minimize exposure of the field personnel and the public to potential environmental hazards. Results of this air monitoring will be used to determine appropriate response actions. The air monitoring, if necessary, will be conducted in accordance with the requirements of the New York State Department of Health Generic Community Air Monitoring Plan and Section 7.0 of the CHASP, as detailed below.

VOC Monitoring, Response Levels, and Actions

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

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

If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or

residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

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

All 15-minute readings will be recorded, as required, and be available for DEP personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations would initially be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring would be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of averaging over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment would 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.

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

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

All readings will be recorded and provided to Hudson Highlands Fjord Trail, Inc.

8.0 DECONTAMINATION PROCEDURES

8.1 Personnel Decontamination

Personnel decontamination (decon), if deemed necessary by the SSO, will take place in a designated decontamination area. This area will be delineated during each stage of work. Personnel decontamination will consist of the following steps:

- Soap and potable water wash and potable water rinse of gloves;
- Coverall removal (if applicable);
- Glove removal;
- Disposable clothing removal; and
- Field wash of hands and face.

8.2 Sampling Equipment Decontamination

Any non-disposable sampling equipment for confirmatory sampling or other equipment that is in contact with contaminated materials will be decontaminated in accordance with the following procedure:

- Double wash with solution of Simple Green® and clean tap water;
- Double rinse with clean tap water;
- Rinse with clean distilled water; and
- Allow equipment to air dry.

8.3 Heavy Equipment Decontamination

If heavy equipment comes in contact with contaminated materials, it will be decontaminated prior to being relocated to a clean area or leaving the Site. A designated decontamination pad will be constructed, where soil, dust, or oil will be washed off the exterior, undercarriage, and wheels or tracks of the equipment.

9.0 EMERGENCY RESPONSE

9.1 Emergency Procedures

In the event that an emergency develops at the Project site, the procedures delineated herein are to be immediately followed. Emergency conditions are considered to exist if:

- Any member of the field crew is involved in an accident or experiences any adverse effects or symptoms of exposure while on-site.
- A condition is discovered that suggests the existence of a situation creating a higher health hazard than anticipated.
- A spill of oil or other hazardous materials.

General emergency procedures and specific procedures for personal injury and chemical exposure are described below. In the event of an accident or emergency, an Incident Report form should be filled out and placed in the project file. An example Incident Report form is provided in Appendix B. Information on emergency hand signals is provided in Appendix C.

9.1.1 Chemical Exposure

If a member of the field crew demonstrates symptoms of chemical exposure the procedures outlined below should be followed:

- Another team member (buddy) should remove the individual from the immediate area of contamination. The buddy should communicate to the SSO (via voice and hand signals) of the chemical exposure. The SSO should contact the appropriate emergency response agency.
- Precautions should be taken to avoid exposure of other individuals to the chemical.
- If the chemical is on the individual's clothing, the chemical should be neutralized or removed if it is safe to do so.
- If the chemical has contacted the skin, the skin should be washed with copious amounts of water.
- In case of eye contact, an emergency eye wash should be used. Eyes should be washed for at least 15 minutes.
- All chemical exposure incidents must be reported in writing to the Project Manager. The SSO is responsible for completing the Incident Report Form.

9.1.2 Personal Injury

In case of personal injury at the Site, the following procedures should be followed:

- Another team member (buddy) should signal the SSO that an injury has occurred.
- A field team member trained in first aid can administer treatment to an injured worker.
- If deemed necessary, the victim should then be transported to the nearest hospital or medical center. If necessary, an ambulance should be called to transport the victim.
- The SSO is responsible for making certain that an Incident Report Form is completed. This form is to be submitted to the designated Health and Safety Officer. Follow-up action should be taken to correct the situation that caused the accident.
- Any incident (near miss, property damage, first aid, medical treatment, etc.) must be reported.

A first-aid kit, eye-wash, and blood-borne pathogens kit will be kept on-site during the field activities and will be supplied by the contractor.

9.1.3 Evacuation Procedures

- The SSO will initiate evacuation procedures by signaling to leave the Project area or containment structure;
- All personnel in the work area should evacuate the area and meet in the common designated area;
- All personnel suspected to be in or near the contract work area should be accounted for and the whereabouts or missing persons determined immediately; and
- The SSO will then give further instruction.

9.1.4 Procedures Implemented in the Event of a Major Fire, Explosion, or Emergency

- Notify the paramedics and/or fire department, as necessary;
- Signal the evacuation procedure previously outlined and implement the entire procedure;
- Isolate the area;
- Stay upwind of any fire;
- Keep the area surrounding the problem source clear after the incident occurs; and
- Complete accident report for and distribute to appropriate personnel.

9.1.5 Spill Response

All personnel must take every precaution to minimize the potential for spills during construction of the Project. Any spill of petroleum or hazardous materials will be reported immediately to the SSO. The SSO will then determine and report any required spills to the NYCDEP and/or NYSDEC Hotlines. Spill control apparatus (sorbent materials) will be located on-site. All materials used for the cleanup of spills will be containerized and labeled separately from other wastes. The SSO, in consultation with the Project Manager, will determine if additional spill response measures are required.

9.2 Hospital Directions

The following information should be completed for each site specific SMMP.

Hospital Information and Directions

Hospital Name:	
Phone Number:	
Address/Location:	
Directions:	

9.3 CHASP Contact Information

Company	Individual Name	Title	Contact Number
Owner			
General Manager			
SSO			
Construction Company			
Ambulance, Fire Department & Police Department	-	-	911
NYSDEC Spill Hotline	-	-	800-457-7362

10.0 APPROVAL & ACKNOWLEDGMENTS OF CHASP

APPROVAL

Signed: _____ Date: _____

Project Manager

Signed: _____ Date: _____

Health and Safety Officer

Below is an affidavit that must be signed by all workers who enter the Site. A copy of the CHASP must be on-site at all times and will be kept by the SSO.

AFFIDAVIT

I,_____(name), of_____(company name), have read the Construction Health and Safety Plan (CHASP) for the Hudson Highlands Fjord Trail Site. I agree to conduct all on-site work in accordance with the requirements set forth in this CHASP and understand that failure to comply with this CHASP could lead to my removal from the Site.

Signed: _____ Company: _____ Date: _____
Signed: _____ Company: _____ Date: _____
Signed: _____ Company: _____ Date: _____
Signed: _____ Company: _____ Date: _____
Signed: _____ Company: _____ Date: _____
Signed: _____ Company: _____ Date: _____
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Signed: _____ Company: _____ Date: _____
Signed: _____ Company: _____ Date: _____
Signed: _____ Company: _____ Date: _____

FIGURES

CHASP APPENDIX A
REPORT FORMS

WEEKLY SAFETY REPORT FORM

W eek Ending: _____ Project Name/Number: _____

Report Date: _____ Project Manager Name: _____

Summary of any violations of procedures occurring that week:

_____

_____

_____

Summary of any job related injuries, illnesses, or near misses that week:

_____

_____

_____

_____

Summary of air monitoring data that week (include and sample analyses, action levels exceeded, and actions taken):

_____

_____

_____

Comments:

_____

_____

_____

Name: _____ Company: _____

Signature: _____ Title: _____

INCIDENT REPORT FORM

Date of Report: _____

Injured: _____

Employer: _____

Site: _____ Site Location: _____

Report Prepared By: _____ _____
Signature Title

ACCIDENT/INCIDENT CATEGORY (check all that applies)

___Injury	___ Illness	___ Near Miss
__ Property Damage	___ Fire	___ Chemical Exposure
__ On-site Equipment	___ Motor Vehicle	___ Electrical
__ Mechanical	___ Spill	___ Other

DATE AND TIME OF ACCIDENT/INCIDENT: Narrative report of Accident/Incident: Identify: 1) actions leading to or contributing to the accident/incident; 2) the accident/incident occurrence; and 3) actions following the accident/incident.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

WITNESS TO ACCIDENT/INCIDENT:

Name:	_____	Company:	_____
Address:	_____	Address:	_____
Phone No.:	_____	Phone No.:	_____
Name:	_____	Company:	_____
Address:	_____	Address:	_____
Phone No.:	_____	Phone No.:	_____

INJURED - ILL:

Name: _____ SSN: _____

Address: _____ Age: _____

Length of Service: _____ Time on Present Job: _____

Time/Classification: _____

SEVERITY OF INJURY OR ILLNESS:

____ Disabling ___ Non-disabling ___ Fatality

____ Medical Treatment ___ First Aid Only

ESTIMATED NUMBER OF DAYS AWAY FROM JOB: _____

NATURE OF INJURY OR ILLNESS: _____

_____

_____

_____

CLASSIFICATION OF INJURY:

__ Abrasions _____ Dislocations ____ Punctures

__ Bites _____ Faint/Dizziness ____ Radiation Burns

__ Blisters _____ Fractures ____ Respiratory Allergy

__ Bruises _____ Frostbite ____ Sprains

__ Chemical Burns _____ Heat Burns ____ Toxic Resp. Exposure

__ Cold Exposure _____ Heat Exhaustion ____ Toxic Ingestion

__ Concussion _____ Heat Stroke ____ Dermal Allergy

__ Lacerations

Part of Body Affected: _____

Degree of Disability: _____

Date Medical Care was Received: _____

Where Medical Care was Received: _____

Address (if off-site): _____

(If two or more injuries, record on separate sheets)

PROPERTY DAMAGE:

Description of Damage: _____

_____

Cost of Damage: $ _____

ACCIDENT/INCIDENT LOCATION: _____

ACCIDENT/INCIDENT ANALYSIS: Causative agent most directly related to accident/incident (Object, substance, material, machinery, equipment, conditions)

_____

_____

_____

_____

Was weather a factor?:_____

_____

Unsafe mechanical/physical/environmental condition at time of accident/incident (Be specific):

_____

_____

_____

Personal factors (Attitude, knowledge or skill, reaction time, fatigue):

_____

_____

ON-SITE ACCIDENTS/INCIDENTS:

Level of personal protection equipment required in Site Safety Plan:

_____

_____

Modifications:

_____

Was injured using required equipment?:

_____

_____

If not, how did actual equipment use differ from plan?:

_____

_____

ACTION TAKEN TO PREVENT RECURRENCE: (Be specific. What has or will be done? When will it be done? Who is the responsible party to insure that the correction is made?

ACCIDENT/INCIDENT REPORT REVIEWED BY:

SSO Name Printed _____ SSO Signature _____

OTHERS PARTICIPATING IN INVESTIGATION:

Signature _____ Title _____

Signature _____ Title _____

Signature _____ Title _____

ACCIDENT/INCIDENT FOLLOW-UP: Date: _____

Outcome of accident/incident: _____

Physician's recommendations: _____

Date injured returned to work: _____

Follow-up performed by:

Signature _____ Title _____

ATTACH ANY ADDITIONAL INFORMATION TO THIS FORM

CHASP APPENDIX B

EMERGENCY HAND SIGNALS

EMERGENCY SIGNALS

In most cases, field personnel will carry portable radios for communication. If this is the case, a transmission that indicates an emergency will take priority over all other transmissions. All other site radios will yield the frequency to the emergency transmissions.

Where radio communications is not available, the following air-horn and/or hand signals will be used:

EMERGENCY HAND SIGNALS

OUT OF AIR, CAN'T BREATHE!

Hand gripping throat

LEAVE AREA IMMEDIATELY, NO DEBATE!

(No Picture) Grip partner's wrist or place both hands around waist

NEED ASSISTANCE!

Hands on top of head

OKAY! – I'M ALL RIGHT!

- I UNDERSTAND!

Thumbs up

NO! - NEGATIVE!

Thumbs down