

APPENDIX B-3D

RFP # 2025-12

BEACON ISLAND PHASE 3
Packaged Wastewater Treatment Plant
and
Fire Pump House and Marine Inlet

REFERENCE DOCUMENTS (4 of 5)

Reference Documents

Beacon Island Phase 3 Program

- NYSDEC Article 11 and 15 Permits. Dated 11/10/22 - Page 1
- State Pollutant Discharge Elimination System (SPDES) Permit. Dated 10/1/23 - Page 21
- Stormwater Pollution Protection Plan (SWPPP). Dated 6/20/22 - Page 59
- Soil Management Plan. Dated 10/23/22 - Page 564
- Landfill Closure Certification Report. Dated 10/21/24 - Page 634
- Geotechnical Engineering Report. Dated 2/2/2023 - Page 659
- Army Corps of Engineers Permit. Date 4/10/23 - Page 779
- Community Air Monitoring Plan (CAMP). Dated 10/23/22 – Page 806

INFILTRATION TEST RESULTS					
PROJECT: Proposed Marmen Manufacturing Facility			PROJECT NO. JB215020		
PROJECT LOCATION: t/o Bethlehem, NY			TEST DATE: May 12 and 13, 2022		
WEATHER: M. Sunny 70°-80° F			TESTER: J. Hutchison, et al.		
Test Location	Test Depth (feet)	Trial No.	Water Drop (ft)	Elapsed Time (min)	Infiltration Rate (inches/hour)
IT-10	11.0	1	0.28	60	3.4
		2	0.07	60	0.8
		3	0.10	60	1.2
		4	0.10	60	1.2
		NOTE: Infiltration rate during final trial run = 1.2 inches per hour			
IT-11	9.0	1	0.02	60	0.2
		2	0.01	60	0.1
		3	-	-	-
		4	-	-	-
		NOTE: Infiltration rate during final trial run = 0.1 inches per hour			
IT-12	6.0	1	0.04	60	0.5
		2	0.02	60	0.2
		3	0.04	60	0.5
		4	-	-	-
		NOTE: Infiltration rate during final trial run = 0.5 inches per hour			

Notes:

- 1) Testing was conducted in general accord with the "Infiltration Testing Requirements" outlined in Appendix D of the New York State Stormwater Management Design Manual.
- 2) Infiltration tests were located alongside companion test borings numbered correspondingly.

SOIL CLASSIFICATION AT TEST DEPTH

Test Location IT-10 – Silty clay (CL-ML)

Test Location IT-11 – Silt (ML)

Test Location IT-12 – Fill (sandy silt)

INFILTRATION TEST RESULTS					
PROJECT: Proposed Marmen Manufacturing Facility			PROJECT NO. JB215020		
PROJECT LOCATION: t/o Bethlehem, NY			TEST DATE: May 12 and 13, 2022		
WEATHER: M. Sunny 70°-80° F			TESTER: J. Hutchison, et al.		
Test Location	Test Depth (feet)	Trial No.	Water Drop (ft)	Elapsed Time (min)	Infiltration Rate (inches/hour)
IT-13	6.5	1	0.08	60	1.0
		2	0.00	60	0.0
		3	0.01	60	0.1
		4	-	-	-
		NOTE: Infiltration rate during final trial run = 0.1 inches per hour			
IT-14	1.0	1	1.93	52	> 24
		2	1.93	56	> 24
		3	1.93	64	21.8
		4	1.03	60	12.4
		NOTE: Infiltration rate during final trial run = 12.4 inches per hour			
IT-15	1.0	1	1.80	4	> 24
		2	1.80	7	> 24
		3	1.80	7	> 24
		4	1.80	8	> 24
		NOTE: Infiltration rate during final trial run > 24 inches per hour			

Notes:

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- 2) Infiltration tests were located alongside companion test borings numbered correspondingly.

SOIL CLASSIFICATION AT TEST DEPTH

Test Location IT-13 – Sandy silt (ML)

Test Location IT-14 – Sandy silt (ML)

Test Location IT-15 – Silt (ML)

INFILTRATION TEST RESULTS					
PROJECT: Proposed Marmen Manufacturing Facility			PROJECT NO. JB215020		
PROJECT LOCATION: t/o Bethlehem, NY			TEST DATE: May 18, 2022		
WEATHER: P. Sunny 68° F			TESTER: J. Lamm, et al.		
Test Location	Test Depth (feet)	Trial No.	Water Drop (ft)	Elapsed Time (min)	Infiltration Rate (inches/hour)
IT-1A	8.0	1	0.10	60	1.2
		2	0.12	60	1.4
		3	0.15	60	1.8
		4	0.14	60	1.7
		NOTE: Infiltration rate during final trial run = 1.7 inches per hour			
IT-7A	5.0	1	0.04	60	0.5
		2	0.02	60	0.2
		3	0.06	60	0.7
		4	0.04	60	0.5
		NOTE: Infiltration rate during final trial run = 0.5 inches per hour			
IT-8A	7.0	1	0.02	60	0.2
		2	0.02	60	0.2
		3	0.02	60	0.2
		4	0.03	60	0.4
		NOTE: Infiltration rate during final trial run = 0.4 inches per hour			

Notes:

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- 2) Infiltration tests were located alongside companion test borings numbered correspondingly.

SOIL CLASSIFICATION AT TEST DEPTH

Test Location IT-1A – Fill (coal ash)

Test Location IT-7A – Sandy silt (ML)

Test Location IT-8A – Silty sand (SM)

INFILTRATION TEST RESULTS					
PROJECT: Proposed Marmen Manufacturing Facility			PROJECT NO. JB215020		
PROJECT LOCATION: t/o Bethlehem, NY			TEST DATE: May 18, 2022		
WEATHER: P. Sunny 68° F			TESTER: J. Lamm, et al.		
Test Location	Test Depth (feet)	Trial No.	Water Drop (ft)	Elapsed Time (min)	Infiltration Rate (inches/hour)
IT-10A	11.0	1	0.00	60	0.0
		2	0.00	60	0.0
		3	0.00	60	0.0
		4	-	-	-
		NOTE: Infiltration rate during final trial run = 0.0 inches per hour			
IT-10B	9.5	1	0.03	60	0.4
		2	0.00	60	0.0
		3	0.00	60	0.0
		4	-	-	-
		NOTE: Infiltration rate during final trial run = 0.0 inches per hour			
IT-12A	4.0	1	0.52	60	6.2
		2	0.54	60	6.5
		3	0.56	60	6.7
		4	0.72	60	8.6
		NOTE: Infiltration rate during final trial run = 8.6 inches per hour			

Notes:

- 1) Testing was conducted in general accord with the "Infiltration Testing Requirements" outlined in Appendix D of the New York State Stormwater Management Design Manual.
- 2) Infiltration tests were located alongside companion test borings numbered correspondingly.

SOIL CLASSIFICATION AT TEST DEPTH

Test Location IT-10A – Silty clay (CL-ML)

Test Location IT-10B – Sandy silt (ML)

Test Location IT-12A – Silty sand (SM)

APPENDIX D

MAINTENANCE INSPECTION CHECKLISTS

Stormwater Pond/Wetland Operation, Maintenance and Management Inspection Checklist

Project _____
 Location: _____
 Site Status: _____

 Date: _____
 Time: _____

 Inspector: _____

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
1. Embankment and emergency spillway (Annual, After Major Storms)		
1. Vegetation and ground cover adequate		
2. Embankment erosion		
3. Animal burrows		
4. Unauthorized planting		
5. Cracking, bulging, or sliding of dam		
a. Upstream face		
b. Downstream face		
c. At or beyond toe		
downstream		
upstream		
d. Emergency spillway		
6. Pond, toe & chimney drains clear and functioning		
7. Seeps/leaks on downstream face		
8. Slope protection or riprap failure		
9. Vertical/horizontal alignment of top of dam "As-Built"		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)		
Type: Reinforced concrete _____ Corrugated pipe _____ Masonry _____		
1. Low flow orifice obstructed		
2. Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
3. Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
5. Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
8. Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (monthly)		
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1. Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual , After Major Storms)		
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4. Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
1. Encroachment on pond, wetland or easement area		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3. Aesthetics		
a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
1. Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
2. Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
4. Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		

Comments:

Actions to be Taken:

Infiltration Trench Operation, Maintenance, and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Trench surface clear of debris		
Inflow pipes clear of debris		
Overflow spillway clear of debris		
Inlet area clear of debris		
2. Sediment Traps or Forebays (Annual)		
Obviously trapping sediment		
Greater than 50% of storage volume remaining		
3. Dewatering (Monthly)		
Trench dewaterers between storms		
4. Sediment Cleanout of Trench (Annual)		
No evidence of sedimentation in trench		
Sediment accumulation doesn't yet require cleanout		
5. Inlets (Annual)		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Good condition		
No evidence of erosion		
6. Outlet/Overflow Spillway (Annual)		
Good condition, no need for repair		
No evidence of erosion		
7. Aggregate Repairs (Annual)		
Surface of aggregate clean		
Top layer of stone does not need replacement		
Trench does not need rehabilitation		

Comments:

Actions to be Taken:

Sand/Organic Filter Operation, Maintenance and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Contributing areas clean of debris		
Filtration facility clean of debris		
Inlet and outlets clear of debris		
2. Oil and Grease (Monthly)		
No evidence of filter surface clogging		
Activities in drainage area minimize oil and grease entry		
3. Vegetation (Monthly)		
Contributing drainage area stabilized		
No evidence of erosion		
Area mowed and clipping removed		
4. Water Retention Where Required (Monthly)		
Water holding chambers at normal pool		
No evidence of leakage		
5. Sediment Deposition (Annual)		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Filter chamber free of sediments		
Sedimentation chamber not more than half full of sediments		
6. Structural Components (Annual)		
No evidence of structural deterioration		
Any grates are in good condition		
No evidence of spalling or cracking of structural parts		
7. Outlet/Overflow Spillway (Annual)		
Good condition, no need for repairs		
No evidence of erosion (if draining into a natural channel)		
8. Overall Function of Facility (Annual)		
Evidence of flow bypassing facility		
No noticeable odors outside of facility		

Comments:

Actions to be Taken:

Open Channel Operation, Maintenance, and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

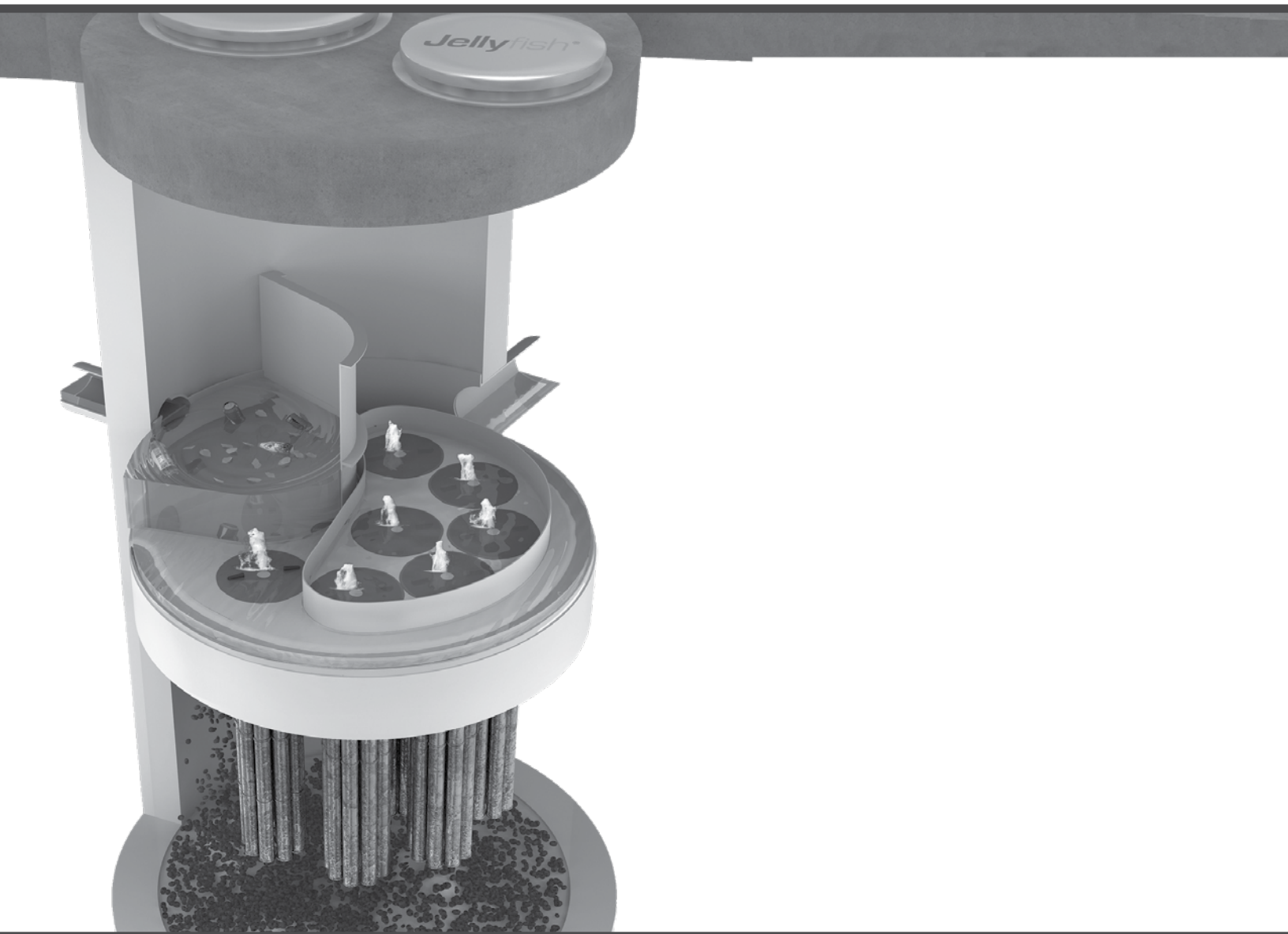
MAINTENANCE ITEM	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Contributing areas clean of debris		
2. Check Dams or Energy Dissipators (Annual, After Major Storms)		
No evidence of flow going around structures		
No evidence of erosion at downstream toe		
Soil permeability		
Groundwater / bedrock		
3. Vegetation (Monthly)		
Mowing done when needed		
Minimum mowing depth not exceeded		
No evidence of erosion		
Fertilized per specification		
4. Dewatering (Monthly)		
Dewaterers between storms		

MAINTENANCE ITEM	SATISFACTORY/ UNSATISFACTORY	COMMENTS
5. Sediment deposition (Annual)		
Clean of sediment		
6. Outlet/Overflow Spillway (Annual)		
Good condition, no need for repairs		
No evidence of erosion		

Comments:

Actions to be Taken:

Jellyfish[®] Filter Maintenance Guide



Jellyfish[®]



JELLYFISH® FILTER INSPECTION & MAINTENANCE GUIDE

Jellyfish units are often just one of many structures in a more comprehensive stormwater drainage and treatment system.

In order for maintenance of the Jellyfish filter to be successful, it is imperative that all other components be properly maintained. The maintenance and repair of upstream facilities should be carried out prior to Jellyfish maintenance activities.

In addition to considering upstream facilities, it is also important to correct any problems identified in the drainage area. Drainage area concerns may include: erosion problems, heavy oil loading, and discharges of inappropriate materials.

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1.0 Inspection and Maintenance Overview

The primary purpose of the Jellyfish® Filter is to capture and remove pollutants from stormwater runoff. As with any filtration system, these pollutants must be removed to maintain the filter's maximum treatment performance. Regular inspection and maintenance are required to insure proper functioning of the system.

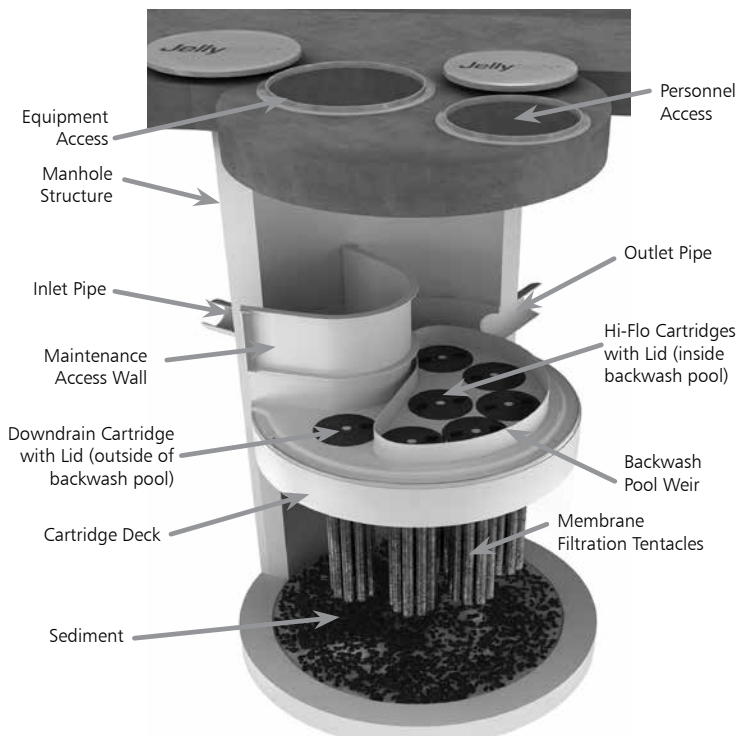
Maintenance frequencies and requirements are site specific and vary depending on pollutant loading. Additional maintenance activities may be required in the event of non-storm event runoff, such as base-flow or seasonal flow, an upstream chemical spill or due to excessive sediment loading from site erosion or extreme runoff events. It is a good practice to inspect the system after major storm events.

Inspection activities are typically conducted from surface observations and include:

- Observe if standing water is present
- Observe if there is any physical damage to the deck or cartridge lids
- Observe the amount of debris in the Maintenance Access Wall (MAW) or inlet bay for vault systems

Maintenance activities include:

- Removal of oil, floatable trash and debris
- Removal of collected sediments
- Rinsing and re-installing the filter cartridges
- Replace filter cartridge tentacles, as needed



Note: Separator Skirt not shown

2.0 Inspection Timing

Inspection of the Jellyfish Filter is key in determining the maintenance requirements for, and to develop a history of, the site's pollutant loading characteristics. In general, inspections should be performed at the times indicated below; *or per the approved project stormwater quality documents (if applicable), whichever is more frequent.*

1. A minimum of quarterly inspections during the first year of operation to assess the sediment and floatable pollutant accumulation, and to ensure proper functioning of the system.
2. Inspection frequency in subsequent years is based on the inspection and maintenance plan developed in the first year of operation. Minimum frequency should be once per year.
3. Inspection is recommended after each major storm event.
4. Inspection is required immediately after an upstream oil, fuel or other chemical spill.

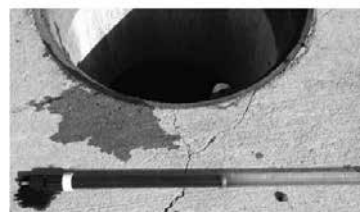
3.0 Inspection Procedure

The following procedure is recommended when performing inspections:

1. Provide traffic control measures as necessary.
2. Inspect the MAW or inlet bay for floatable pollutants such as trash, debris, and oil sheen.
3. Measure oil and sediment depth in several locations, by lowering a sediment probe until contact is made with the floor of the structure. Record sediment depth, and presences of any oil layers.
4. Inspect cartridge lids. Missing or damaged cartridge lids to be replaced.
5. Inspect the MAW (where appropriate), cartridge deck and receptacles, and backwash pool weir, for damaged or broken components.

3.1 Dry weather inspections

- Inspect the cartridge deck for standing water, and/or sediment on the deck.
- No standing water under normal operating conditions.
- Standing water inside the backwash pool, but not outside the backwash pool indicates, that the filter cartridges need to be rinsed.



Inspection Utilizing Sediment Probe

- Standing water outside the backwash pool is not anticipated and may indicate a backwater condition caused by high water elevation in the receiving water body, or possibly a blockage in downstream infrastructure.
- Any appreciable sediment ($\geq 1/16''$) accumulated on the deck surface should be removed.

3.2 Wet weather inspections

- Observe the rate and movement of water in the unit. Note the depth of water above deck elevation within the MAW or inlet bay.
- Less than 6 inches, flow should be exiting the cartridge lids of each of the draindown cartridges (i.e. cartridges located outside the backwash pool).
- Greater than 6 inches, flow should be exiting the cartridge lids of each of the draindown cartridges and each of the hi-flo cartridges (i.e. cartridges located inside the backwash pool), and water should be overflowing the backwash pool weir.
- 18 inches or greater and relatively little flow is exiting the cartridge lids and outlet pipe, this condition indicates that the filter cartridges need to be rinsed.

4.0 Maintenance Requirements

Required maintenance for the Jellyfish Filter is based upon results of the most recent inspection, historical maintenance records, or the site specific water quality management plan; whichever is more frequent. In general, maintenance requires some combination of the following:

1. Sediment removal for depths reaching 12 inches or greater, or within 3 years of the most recent sediment cleaning, whichever occurs sooner.
2. Floatable trash, debris, and oil removal.
3. Deck cleaned and free from sediment.
4. Filter cartridges rinsed and re-installed as required by the most recent inspection results, or within 12 months of the most recent filter rinsing, whichever occurs sooner.
5. Replace tentacles if rinsing does not restore adequate hydraulic capacity, remove accumulated sediment, or if damaged or missing. It is recommended that tentacles should remain in service no longer than 5 years before replacement.
6. Damaged or missing cartridge deck components must be repaired or replaced as indicated by results of the most recent inspection.
7. The unit must be cleaned out and filter cartridges inspected immediately after an upstream oil, fuel, or chemical spill. Filter cartridge tentacles should be replaced if damaged or compromised by the spill.

5.0 Maintenance Procedure

The following procedures are recommended when maintaining the Jellyfish Filter:

1. Provide traffic control measures as necessary.
2. Open all covers and hatches. Use ventilation equipment as required, according to confined space entry procedures.
Caution: Dropping objects onto the cartridge deck may cause damage.

3. Perform Inspection Procedure prior to maintenance activity.
4. To access the cartridge deck for filter cartridge service, descend into the structure and step directly onto the deck. Caution: Do not step onto the maintenance access wall (MAW) or backwash pool weir, as damage may result. Note that the cartridge deck may be slippery.
5. Maximum weight of maintenance crew and equipment on the cartridge deck not to exceed 450 lbs.

5.1 Filter Cartridge Removal

1. Remove a cartridge lid.
2. Remove cartridges from the deck using the lifting loops in the cartridge head plate. Rope or a lifting device (available from Contech) should be used. **Caution: Should a snag occur, do not force the cartridge upward as damage to the tentacles may result. Wet cartridges typically weigh between 100 and 125 lbs.**
3. Replace and secure the cartridge lid on the exposed empty receptacle as a safety precaution. Contech does not recommend exposing more than one empty cartridge receptacle at a time.

5.2 Filter Cartridge Rinsing

1. Remove all 11 tentacles from the cartridge head plate. Take care not to lose or damage the O-ring seal as well as the plastic threaded nut and connector.



Cartridge Removal & Lifting Device



2. Position tentacles in a container (or over the MAW), with the threaded connector (open end) facing down, so rinse water is flushed through the membrane and captured in the container.
3. Using the Jellyfish rinse tool (available from Contech) or a low-pressure garden hose sprayer, direct water spray onto the tentacle membrane, sweeping from top to bottom along the length of the tentacle. Rinse until all sediment is removed from the membrane. **Caution: Do not use a high pressure sprayer or focused stream of water on the membrane. Excessive water pressure may damage the membrane.**

4. Collected rinse water is typically removed by vacuum hose.
5. Reassemble cartridges as detailed later in this document. Reuse O-rings and nuts, ensuring proper placement on each tentacle.

5.3 Sediment and Floatables Extraction

1. Perform vacuum cleaning of the Jellyfish Filter only after filter cartridges have been removed from the system. Access the lower chamber for vacuum cleaning only through the maintenance access wall (MAW) opening. Be careful not to damage the flexible plastic separator skirt that is attached to the underside of the deck on manhole systems. Do not lower the vacuum wand through a cartridge receptacle, as damage to the receptacle will result.
2. Vacuum floatable trash, debris, and oil, from the MAW opening or inlet bay. Alternatively, floatable solids may be removed by a net or skimmer.



Vacuuming Sump Through MAW

3. Pressure wash cartridge deck and receptacles to remove all sediment and debris. Sediment should be rinsed into the sump area. Take care not to flush rinse water into the outlet pipe.
4. Remove water from the sump area. Vacuum or pump equipment should only be introduced through the MAW or inlet bay.
5. Remove the sediment from the bottom of the unit through the MAW or inlet bay opening.



Vacuuming Sump Through MAW

6. For larger diameter Jellyfish Filter manholes (≥ 8 -ft) and some vaults complete sediment removal may be facilitated by removing a cartridge lid from an empty receptacle and inserting a jetting wand (not a vacuum wand) through the receptacle. Use the sprayer to rinse loosened sediment toward the vacuum hose in the MAW opening, being careful not to damage the receptacle.

5.4 Filter Cartridge Reinstallation and Replacement

1. Cartridges should be installed after the deck has been cleaned. It is important that the receptacle surfaces be free from grit and debris.
2. Remove cartridge lid from deck and carefully lower the filter cartridge into the receptacle until head plate gasket is seated squarely in receptacle. **Caution: Do not force the cartridge downward; damage may occur.**
3. Replace the cartridge lid and check to see that both male threads are properly seated before rotating approximately 1/3 of a full rotation until firmly seated. Use of an approved rim gasket lubricant may facilitate installation. See next page for additional details.
4. If rinsing is ineffective in removing sediment from the tentacles, or if tentacles are damaged, provisions must be made to replace the spent or damaged tentacles with new tentacles. Contact Contech to order replacement tentacles.

5.5 Chemical Spills

Caution: If a chemical spill has been captured, do not attempt maintenance. Immediately contact the local hazard response agency and contact Contech.

5.6 Material Disposal

The accumulated sediment found in stormwater treatment and conveyance systems must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals (such as pesticides and petroleum products). Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads. Sediments and water must be disposed of in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. This typically requires coordination with a local landfill for solid waste disposal. For liquid waste disposal a number of options are available including a municipal vacuum truck decant facility, local waste water treatment plant or on-site treatment and discharge.

Jellyfish Filter Components & Filter Cartridge Assembly and Installation

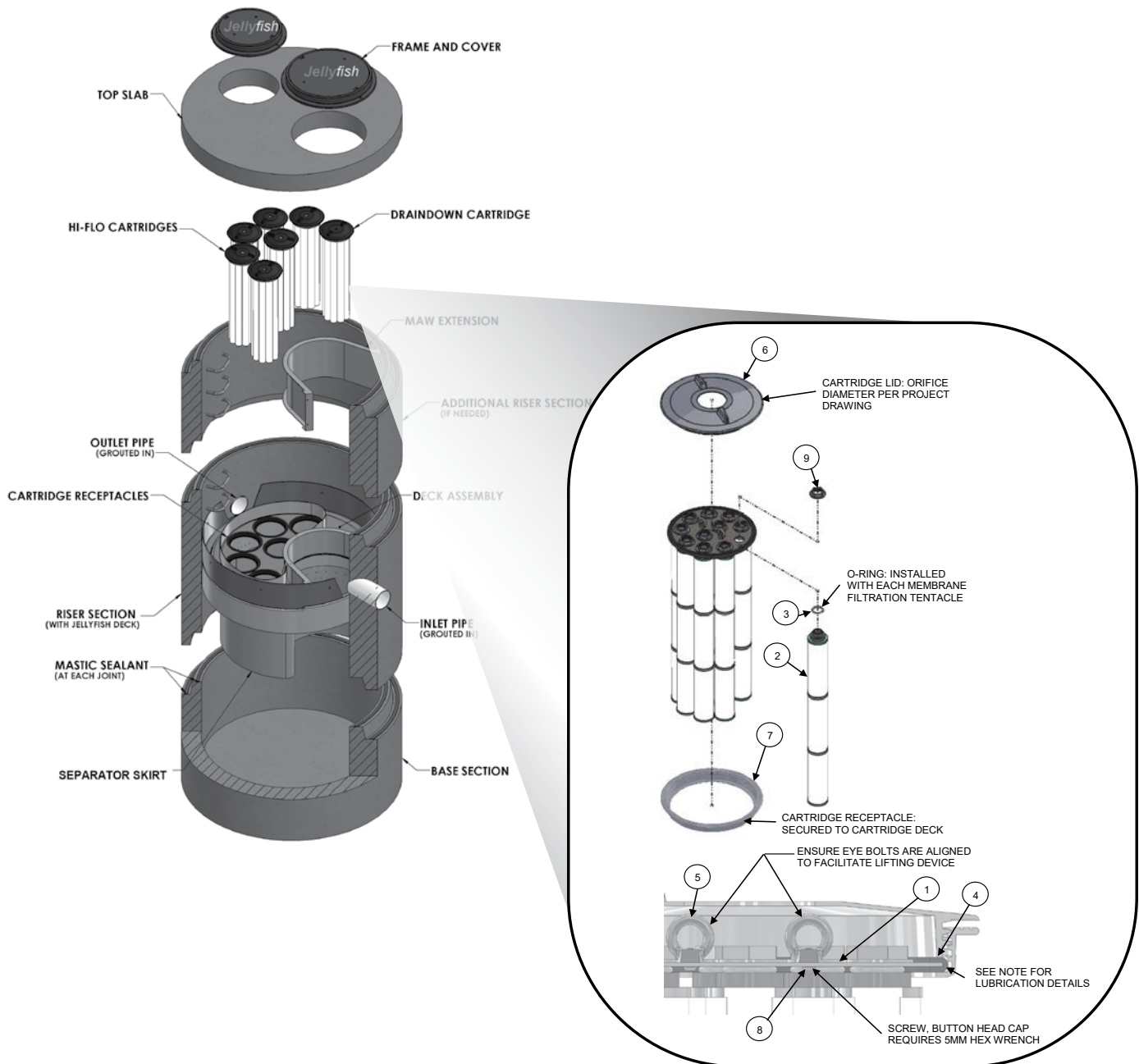


TABLE 1: BOM

ITEM NO.	DESCRIPTION
1	JF HEAD PLATE
2	JF TENTACLE
3	JF O-RING
4	JF HEAD PLATE GASKET
5	JF CARTRIDGE EYELET
6	JF 14IN COVER
7	JF RECEPTACLE
8	BUTTON HEAD CAP SCREW M6X14MM SS
9	JF CARTRIDGE NUT

TABLE 2: APPROVED GASKET LUBRICANTS

PART NO.	MFR	DESCRIPTION
78713	LA-CO	LUBRI-JOINT
40501	HERCULES	DUCK BUTTER
30600	OATEY	PIPE LUBRICANT
PSI LUBX 10	PROSECT	PIPE JOINT LUBRICANT

NOTES:

Head Plate Gasket Installation:

Install Head Plate Gasket (Item 4) onto the Head Plate (Item 1) and liberally apply a lubricant from Table 2: Approved Gasket Lubricants onto the gasket where it contacts the Receptacle (Item 7) and Cartridge Lide (Item 6). Follow Lubricant manufacturer's instructions.

Lid Assembly:

Rotate Cartridge Lid counter-clockwise until both male threads drop down and properly seat. Then rotate Cartridge Lid clockwise approximately one-third of a full rotation until Cartridge Lid is firmly secured, creating a watertight seal.

Jellyfish Filter Inspection and Maintenance Log

Owner:		Jellyfish Model No:	
Location:		GPS Coordinates:	
Land Use:	Commercial:	Industrial:	Service Station:
	Roadway/Highway:	Airport:	Residential:

Date/Time:						
Inspector:						
Maintenance Contractor:						
Visible Oil Present: (Y/N)						
Oil Quantity Removed:						
Floatable Debris Present: (Y/N)						
Floatable Debris Removed: (Y/N)						
Water Depth in Backwash Pool						
Draindown Cartridges externally rinsed and recommissioned: (Y/N)						
New tentacles put on Draindown Cartridges: (Y/N)						
Hi-Flo Cartridges externally rinsed and recommissioned: (Y/N)						
New tentacles put on Hi-Flo Cartridges: (Y/N)						
Sediment Depth Measured: (Y/N)						
Sediment Depth (inches or mm):						
Sediment Removed: (Y/N)						
Cartridge Lids intact: (Y/N)						
Observed Damage:						
Comments:						



Support

- Drawings and specifications are available at www.conteches.com/jellyfish.
- Site-specific design support is available from Contech Engineered Solutions.
- Find a Certified Maintenance Provider at www.conteches.com/ccmp

Jellyfish®

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Isolator[®] Row Plus

O&M Manual



The Isolator[®] Row Plus

Introduction

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row Plus is a technique to inexpensively enhance Total Suspended Solids (TSS) and Total Phosphorus (TP) removal with easy access for inspection and maintenance.

The Isolator Row Plus

The Isolator Row Plus is a row of StormTech chambers, either SC-160, SC-310, SC-310-3, SC-740, DC-780, MC-3500 or MC-7200 models, that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for sediment settling and filtration as stormwater rises in the Isolator Row Plus and passes through the filter fabric. The open bottom chambers and perforated sidewalls (SC-310, SC-310-3 and SC-740 models) allow stormwater to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row Plus protecting the adjacent stone and chambers storage areas from sediment accumulation.

ADS geotextile fabric is placed between the stone and the Isolator Row Plus chambers. The woven geotextile provides a media for stormwater filtration, a durable surface for maintenance, prevents scour of the underlying stone and remains intact during high pressure jetting. A non-woven fabric is placed over the chambers to provide a filter media for flows passing through the chamber's sidewall. The non-woven fabric is not required over the SC-160, DC-780, MC-3500 or MC-7200 models as these chambers do not have perforated side walls.

The Isolator Row Plus is designed to capture the "first flush" runoff and offers the versatility to be sized on a volume basis or a flow-rate basis. An upstream manhole provides access to the Isolator Row Plus and includes a high/low concept such that stormwater flow rates or volumes that exceed the capacity of the Isolator Row Plus bypass through a manifold to the other chambers. This is achieved with an elevated bypass manifold or a high-flow weir. This creates a differential between the Isolator Row Plus row of chambers and the manifold to the rest of the system, thus allowing for settlement time in the Isolator Row Plus. After Stormwater flows through the Isolator Row Plus and into the rest of the chamber system it is either exfiltrated into the soils below or passed at a controlled rate through an outlet manifold and outlet control structure.

The Isolator Row FLAMP[™] (patent pending) is a flared end ramp apparatus attached to the inlet pipe on the inside of the chamber end cap. The FLAMP provides a smooth transition from pipe invert to fabric bottom. It is configured to improve chamber function performance by enhancing outflow of solid debris that would otherwise collect at the chamber's end. It also serves to improve the fluid and solid flow into the access pipe during maintenance and cleaning and to guide cleaning and inspection equipment back into the inlet pipe when complete.

The Isolator Row Plus may be part of a treatment train system. The treatment train design and pretreatment device selection by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, StormTech recommend using the Isolator Row Plus to minimize maintenance requirements and maintenance costs.

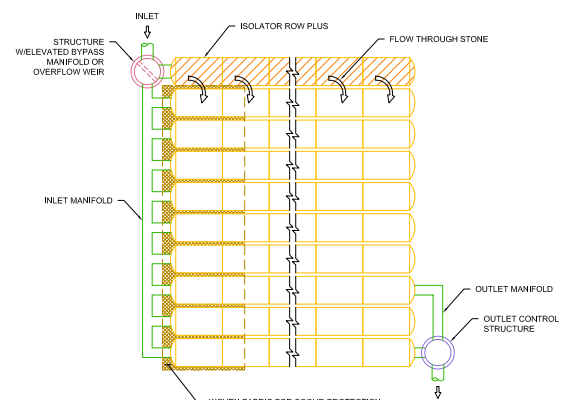
Note: See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row Plus.



Looking down the Isolator Row PLUS from the manhole opening, ADS PLUS Fabric is shown between the chamber and stone base.



StormTech Isolator Row PLUS with Overflow Spillway (not to scale)



Isolator Row Plus Inspection/Maintenance

Inspection

The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row Plus should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

The Isolator Row Plus incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

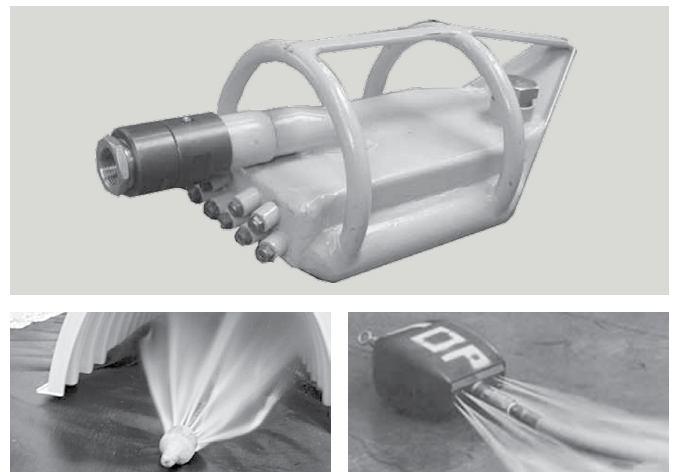
If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row Plus, clean-out should be performed.

Maintenance

The Isolator Row Plus was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided

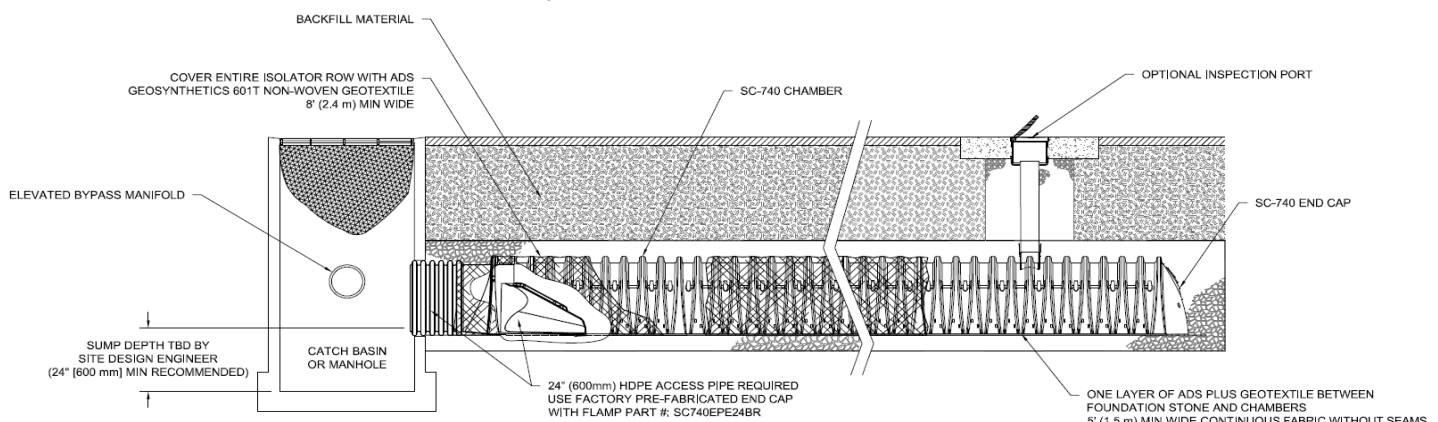
via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row Plus while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" are best. StormTech recommends a maximum nozzle pressure of 2000 psi be utilized during cleaning. JetVac reels can vary in length. For ease of maintenance, ADS recommends Isolator Row Plus lengths up to 200' (61 m). **The JetVac process shall only be performed on StormTech Isolator Row Plus that have ADS Plus Fabric (as specified by StormTech) over their angular base stone.**



StormTech Isolator Row PLUS (not to scale)

Note: Non-woven fabric is only required over the inlet pipe connection into the end cap for SC-160LP, DC-780, MC-3500 and MC-7200 chamber models and is not required over the entire Isolator Row PLUS.



Isolator Row Plus Step By Step Maintenance Procedures

Step 1

Inspect Isolator Row Plus for sediment.

- A) Inspection ports (if present)
 - i. Remove lid from floor box frame
 - ii. Remove cap from inspection riser
 - iii. Using a flashlight and stadia rod, measure depth of sediment and record results on maintenance log.
 - iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3.
- B) All Isolator Row Plus
 - i. Remove cover from manhole at upstream end of Isolator Row Plus
 - ii. Using a flashlight, inspect down Isolator Row Plus through outlet pipe
 - 1. Mirrors on poles or cameras may be used to avoid a confined space entry
 - 2. Follow OSHA regulations for confined space entry if entering manhole
 - iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2.
If not, proceed to Step 3.

Step 2

Clean out Isolator Row Plus using the JetVac process.

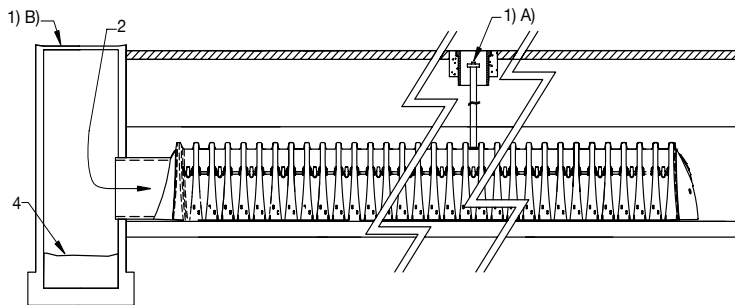
- A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
- B) Apply multiple passes of JetVac until backflush water is clean
- C) Vacuum manhole sump as required

Step 3

Replace all caps, lids and covers, record observations and actions.

Step 4

Inspect & clean catch basins and manholes upstream of the StormTech system.



Sample Maintenance Log

Date	Stadia Rod Readings		Sedi- ment Depth (1)-(2)	Observations/Actions	Inspector
	Fixed point to chamber bottom (1)	Fixed point to top of sediment (2)			
3/15/11	6.3 ft	none		New installation. Fixed point is CI frame at grade	DJM
9/24/11		6.2	0.1 ft	Some grit felt	SM
6/20/13		5.8	0.5 ft	Mucky feel, debris visible in manhole and in Isolator Row PLUS, maintenance due	NV
7/7/13	6.3 ft		0	System jetted and vacuumed	DJM

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5.1.6 Soil Restoration

Description

Soil Restoration is a required practice applied across areas of a development site where soils have been disturbed and will be vegetated in order to recover the original properties and porosity of the soil. Healthy soil is vital to a sustainable environment and landscape. A deep, well drained soil, rich in organic matter, absorbs rainwater, helps prevent flooding and soil erosion, filters out water pollutants, and promotes vigorous plant growth that requires less irrigation, pesticides, and fertilizer.

Soil Restoration is applied in the cleanup, restoration, and landscaping phase of construction followed by the permanent establishment of an appropriate, deep-rooted groundcover to help maintain the restored soil structure. Soil restoration includes mechanical decompaction, compost amendment, or both.

Many runoff reduction practices need Soil Restoration measures applied over and adjacent to the practice to achieve runoff reduction performance. (See typical compacted soil in Figure 5.15). Consult individual profile sheets for specific design criteria.

Figure 5.14 Shows typical compacted soils that nearly reach the bulk density of concrete (Schueler et al 2000)



Key Benefits

- More marketable buildings and landscapes
- Less stormwater runoff, better water quality
- Healthier, aesthetically pleasing landscapes
- Increased porosity on redevelopment sites where impervious cover is converted to pervious
- Achieves performance standards on runoff reduction practices
- Decreases runoff volume generated and lowers the demand on runoff control structures
- Enhances direct groundwater recharge
- Promotes successful long-term revegetation by restoring soil organic matter, permeability, drainage and water holding capacity for healthy root system development of trees, shrubs and deep-rooted ground covers, minimizing lawn chemical requirements, plant drowning during wet periods, and burnout during dry periods

Typical Perceived Obstacles and Realities

New York State Stormwater Management Design Manual

Chapter 5: Green Infrastructure Practices

Section 5.1 Planning for Green Infrastructure: Preservation of Natural Features and Conservation Design

- Higher cost due to soil restoration- *application of soil de-compaction and enhancement may have additional initial cost; however, they provide benefit in reducing the need for conveyance structures.*
- Space constraints and obstruction for use of equipment - *post construction space may limit the ability of some of the de-compaction equipment, however, alternative equipment and sensible planning help overcome this obstacle.*

Discussion

Tilling exposes compacted soil devoid of oxygen to air and recreates temporary air space. In addition, research has shown that the incorporation of organic compost, can greatly improve temporary water storage in the soil and subsequent runoff reduction through infiltration and evapotranspiration.

Soils that have a permanent high water table close to the surface (0-12 inches), either influenced by a clay or other highly impervious layer of material, may have bulk densities so naturally high that compaction has little added impact on infiltration (Lacey 2008). However, these soils will still benefit from the addition of compost. The water holding capacity, penetration, structural stability, and fertility of clay soils were improved with compost mixing (Avnimelech and Cohen 1988).

Table 5.3 describes various soil disturbance activities related to land development, soil types and the requirements for soil restoration for each activity. Soil Restoration or modification of curve numbers is a required practice. Restoration is applied across areas of a development site where soils have been compacted and will be vegetated according to the criteria defined in Table 5.3. If Soil Restoration is not applied according to these criteria, designers are required to:

- a) Increase the calculated WQv by factoring in the compacted areas that have not been kept as impervious cover (including areas of cut or fill, heavy traffic areas on site, or Impervious Cover reduction in redevelopment projects unless aeration or full soil restoration is applied, per Table 5.3).
- b) Change by one level the post-construction hydrologic soil group (HSG) to a less permeable group than the original condition. This is applied to all volumetric and discharge rate control computations.

New York State Stormwater Management Design Manual

Chapter 5: Green Infrastructure Practices

Section 5.1 Planning for Green Infrastructure: Preservation of Natural Features and Conservation Design

Table 5.3 Soil Restoration Requirements			
Type of Soil Disturbance	Soil Restoration Requirement		Comments/Examples
No soil disturbance	Restoration not permitted		Preservation of Natural Features
Minimal soil disturbance	Restoration not required		Clearing and grubbing
Areas where topsoil is stripped only - no change in grade	HSG A &B	HSG C&D	Protect area from any ongoing construction activities.
	apply 6 inches of topsoil	Aerate* and apply 6 inches of topsoil	
Areas of cut or fill	HSG A &B	HSG C & D	
	Aerate and apply 6 inches of topsoil	Apply full Soil Restoration **	
Heavy traffic areas on site (especially in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls)	Apply full Soil Restoration (de-compaction and compost enhancement)		
Areas where Runoff Reduction and/or Infiltration practices are applied	Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.		Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single phase operation fence area
Redevelopment projects	Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.		

*Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.

** Per “Deep Ripping and De-compaction, DEC 2008”.

Using this Practice

During periods of relatively low to moderate subsoil moisture, the disturbed subsoils are returned to rough grade and the following Soil Restoration steps applied:

- 1) Apply 3 inches of compost over subsoil

New York State Stormwater Management Design Manual

Chapter 5: Green Infrastructure Practices

Section 5.1 Planning for Green Infrastructure: Preservation of Natural Features and Conservation Design

- 2) Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils
- 3) Rock-pick until uplifted stone/rock materials of four inches and larger size are cleaned off the site
- 4) Apply topsoil to a depth of 6 inches
- 5) Vegetate as required by approved plan.

At the end of the project an inspector should be able to push a 3/8" metal bar 12 inches into the soil just with body weight. Figures 5.16 and 5.17 show two attachments used for soil decompaction. Tilling (step 2 above) should not be performed within the drip line of any existing trees or over utility installations that are within 24 inches of the surface.

COMPOST SPECIFICATIONS

Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half inch screen and have a pH suitable to grow desired plants.

Maintenance

A simple maintenance agreement should identify where Soil Restoration is applied, where newly restored areas are/cannot be cleared, who the responsible parties are to ensure that routine vegetation improvements are made (i.e., thinning, invasive plant removal, etc.). Soil compost amendments within a filter strip or grass channel should be located in public right of way, or within a dedicated stormwater or drainage easement.

First year maintenance operations includes:

- Initial inspections for the first six months (once after each storm greater than half- inch)

Figure 5.15 Soil aerator implement



Figure 5.16 Soil aerator implement



New York State Stormwater Management Design Manual

Chapter 5: Green Infrastructure Practices

Section 5.1 Planning for Green Infrastructure: Preservation of Natural Features and Conservation Design

- Reseeding to repair bare or eroding areas to assure grass stabilization
- Water once every three days for first month, and then provide a half inch of water per week during first year. Irrigation plan may be adjusted according to the rain event.
- Fertilization may be needed in the fall after the first growing season to increase plant vigor
- Ongoing Maintenance:

Two points help ensure lasting results of decompaction:

- 1) Planting the appropriate ground cover with deep roots to maintain the soil structure
- 2) Keeping the site free of vehicular and foot traffic or other weight loads. Consider pedestrian footpaths. (Sometimes it may be necessary to de-thatch the turf every few years)

References/Further Resources

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APPENDIX E

SPDES PERMIT



Department of
Environmental
Conservation

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70
of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator

A handwritten signature in black ink, appearing to be "John J. Ferguson", written over a horizontal line. The signature is stylized and cursive.

Authorized Signature

1-23-20
Date

Address: NYS DEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act (“CWA”), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System (“NPDES”)* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of “*construction activity*”, as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM
CONSTRUCTION ACTIVITIES**

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Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State*.
3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

Discharges authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize* the *discharge of pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* (“SWPPP”) the reason(s) for the

deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

- a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:
- (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharges*;
 - (ii) Control stormwater *discharges*, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;
 - (iii) *Minimize* the amount of soil exposed during *construction activity*;
 - (iv) *Minimize* the disturbance of *steep slopes*;
 - (v) *Minimize* sediment *discharges* from the site;
 - (vi) Provide and maintain *natural buffers* around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharges*, unless *infeasible*;
 - (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;
 - (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and
 - (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.
- b. **Soil Stabilization.** In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

- c. **Dewatering.** *Discharges* from *dewatering* activities, including *discharges* from *dewatering* of trenches and excavations, must be managed by appropriate control measures.
- d. **Pollution Prevention Measures.** Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:
 - (i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;
 - (ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and
 - (iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.
- e. **Prohibited Discharges.** The following *discharges* are prohibited:
 - (i) Wastewater from washout of concrete;
 - (ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

- (iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;
 - (iv) Soaps or solvents used in vehicle and equipment washing; and
 - (v) Toxic or hazardous substances from a spill or other release.
- f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-construction Stormwater Management Practice Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual (“Design Manual”), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices (“SMPs”) are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

- (i) Runoff Reduction Volume (“RRv”): Reduce the total Water Quality Volume (“WQv”) by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.
- (ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (“Cpv”): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
 - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
 - (2) The site discharges directly to tidal waters, or fifth order or larger streams.
- (iv) *Overbank* Flood Control Criteria (“Qp”): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
 - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.
- (v) Extreme Flood Control Criteria (“Qf”): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
 - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.

b. Sizing Criteria for New Development in Enhanced Phosphorus Removal Watershed

- (i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be

calculated in accordance with the criteria in Section 10.3 of the Design Manual.

- (ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
 - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
 - (2) The site *discharges* directly to tidal waters, or fifth order or larger streams.
- (iv) Overbank Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
 - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.
- (v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
 - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.

c. Sizing Criteria for Redevelopment Activity

- (i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.
 - (1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or
 - (2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRV capacity., or
 - (3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or
 - (4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

- (ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iii) Overbank Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

d. Sizing Criteria for Combination of Redevelopment Activity and New Development

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

D. Maintaining Water Quality

The Department expects that compliance with the conditions of this permit will control *discharges* necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;
2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and
3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharges* authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharges* authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharges* will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity to surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.
2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharges*; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.
3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: “Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned”; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharges* from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.
4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

F. Activities Which Are Ineligible for Coverage Under This General Permit

All of the following are **not** authorized by this permit:

1. *Discharges after construction activities* have been completed and the site has undergone *final stabilization*;
2. *Discharges* that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;
3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;
4. *Construction activities or discharges from construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

operator has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;
6. *Construction activities* for residential, commercial and institutional projects:
 - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
 - b. Which are undertaken on land with no existing *impervious cover*; and
 - c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.
7. *Construction activities* for linear transportation projects and linear utility projects:
 - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
 - b. Which are undertaken on land with no existing *impervious cover*; and
 - c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:
- a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.
 - 1-5 acres of disturbance - 20 feet
 - 5-20 acres of disturbance - 50 feet
 - 20+ acres of disturbance - 100 feet, or
 - b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
 - (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
 - (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
 - (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
 - (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or
 - c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

- (i) No Affect
- (ii) No Adverse Affect
- (iii) Executed Memorandum of Agreement, or

d. Documentation that:

- (i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.

9. *Discharges from construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.
2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the "MS4 SWPPP Acceptance" form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.
3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of Owner or Operator) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (<http://www.dec.ny.gov/>). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

**NOTICE OF INTENT
NYS DEC, Bureau of Water Permits
625 Broadway, 4th Floor
Albany, New York 12233-3505**

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.
3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.
4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.
2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:
 - a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (<http://www.dec.ny.gov/>) for more information,
 - b. where required, all necessary Department permits subject to the *Uniform Procedures Act* ("UPA") (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators of construction activities* that are required to obtain UPA permits

must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

- c. the final SWPPP has been prepared, and
 - d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.
3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:
- a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:
 - (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or
 - (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;
 - (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

- b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:
 - (i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed “MS4 SWPPP Acceptance” form, or
 - (ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed “MS4 SWPPP Acceptance” form.
4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination (“NOT”) has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.
2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor’s or subcontractor’s certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.
3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

use control MS4, the regulated, traditional land use control MS4 (provided the regulated, traditional land use control MS4 is not the owner or operator of the construction activity). At a minimum, the owner or operator must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

- a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
 - b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.
 - c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
 - d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.
 - e. The *owner or operator* shall include the requirements above in their SWPPP.
4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..
 5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.
 6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

regulated, traditional land use control MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

E. Permit Coverage for Discharges Authorized Under GP-0-15-002

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of a *construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4*, the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.
2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.
3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

operator was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.
2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.
3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.
4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:
 - a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

- b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge of pollutants*;
 - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority; and
 - d. to document the final construction conditions.
5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.
6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges* from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:
 - a. Background information about the scope of the project, including the location, type and size of project

- b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge(s)*;
- c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);
- d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;
- e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;
- f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;
- g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;
- h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;
- i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

- j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;
 - k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and
 - l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

The post-construction stormwater management practice component of the SWPPP shall include the following:

- a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

- b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;
- c. A Stormwater Modeling and Analysis Report that includes:
 - (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;
 - (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;
 - (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;
 - (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;
 - (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and
 - (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;
- d. Soil testing results and locations (test pits, borings);
- e. Infiltration test results, when required; and
- f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria*, Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

C. Required SWPPP Components by Project Type

Unless otherwise notified by the Department, *owners or operators of construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators of the construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.
2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.
3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
 - Certified Professional in Erosion and Sediment Control (CPESC),
 - New York State Erosion and Sediment Control Certificate Program holder
 - Registered Landscape Architect, or
 - someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].
1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:
 - a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

- b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;
 - c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
 - d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:
- a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.
 - b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
 - c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization*, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the “*Final Stabilization*” and “*Post-Construction Stormwater Management Practice*” certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.
 - e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization*, all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.
 4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

- a. Date and time of inspection;
- b. Name and title of person(s) performing inspection;
- c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
- d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
- e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;
- f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;
- g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;
- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);
- k. Identification and status of all corrective actions that were required by previous inspection; and

- I. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.
2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:
 - a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

- b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;
 - c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.
 - d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.
3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the “*Final Stabilization*” and “Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.
4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the “MS4 Acceptance” statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector’s* final site inspection certification(s) required in Part V.A.3. of this permit.
5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:
- a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,
- d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

B. Addresses

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

B. Continuation of the Expired General Permit

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

C. Enforcement

Failure of the *owner or operator*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

E. Duty to Mitigate

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

G. Other Information

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:
 - a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

- (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - (i) the chief executive officer of the agency, or
 - (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

- c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.
3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.
4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person.

It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

K. Requirement to Obtain Coverage Under an Alternative Permit

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge(s)*, the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner's or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.
4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions

Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.
2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

R. Other Permits

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
Cpv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DOW – Division of Water
EAF – Environmental Assessment Form
ECL - Environmental Conservation Law
EPA – U. S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review
SEQRA - State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property – means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State” prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both “sewage” and “stormwater”.

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for “*Construction Activity(ies)*” also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Construction Site – means the land area where *construction activity(ies)* will occur. See definition for “*Commence (Commencement of) Construction Activities*” and “*Larger Common Plan of Development or Sale*” also.

Dewatering – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

Embankment – means an earthen or rock slope that supports a road/highway.

Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department’s rules and regulations for definition of terms and requirements.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- (ii) Designed or used for collecting or conveying stormwater;
- (iii) Which is not a *combined sewer*; and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

Natural Buffer – means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Performance Criteria – means the design criteria listed under the “Required Elements” sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRV, Cpv, Qp and Qf) in Part I.C.2. of the permit.

Point Source - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Routine Maintenance Activity - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank Flood* (Qp), and *Extreme Flood* (Qf).

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Steep Slope – means land area designated on the current United States Department of Agriculture (“USDA”) Soil Survey as Soil Slope Phase “D”, (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint sources*. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint sources*, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1
Construction Activities that Require the Preparation of a SWPPP That Only
Includes Erosion and Sediment Controls

The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres: • Single family home <u>not</u> located in one of the watersheds listed in Appendix C or <u>not directly discharging</u> to one of the 303(d) segments listed in Appendix E • Single family residential subdivisions with 25% or less impervious cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E • Construction of a barn or other <i>agricultural building</i>, silo, stock yard or pen.
The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land: All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
The following construction activities that involve soil disturbances of one (1) or more acres of land: • Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains • Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects • Pond construction • Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover • Cross-country ski trails and walking/hiking trails • Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development; • Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path. • Slope stabilization projects • Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

**Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP
THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS**

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State”, excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES
POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development conditions*
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES
POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES**

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development conditions*
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover*, and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development conditions*, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

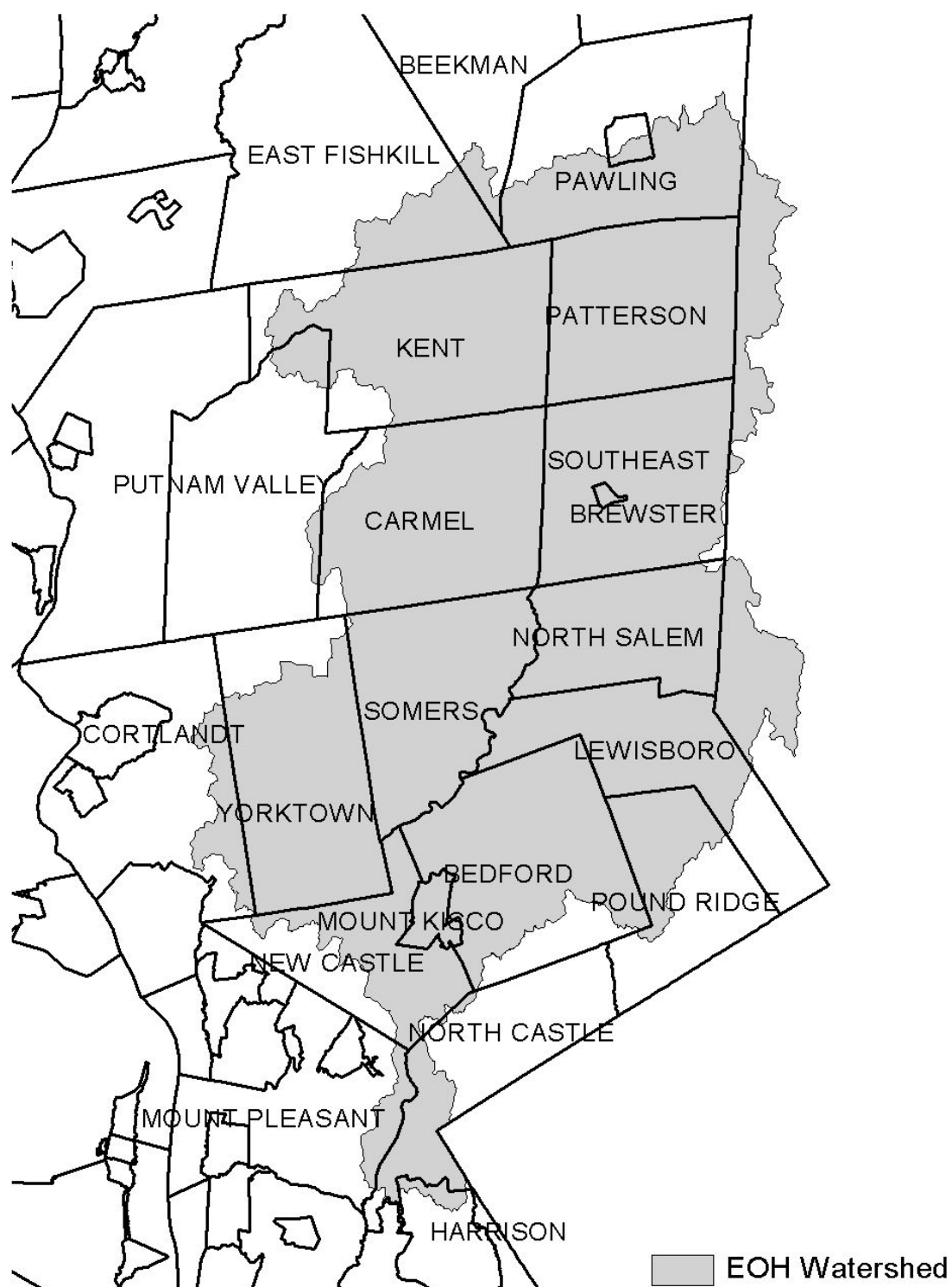
Figure 1 - New York City Watershed East of the Hudson

Figure 2 - Onondaga Lake Watershed

Figure 3 - Greenwood Lake Watershed

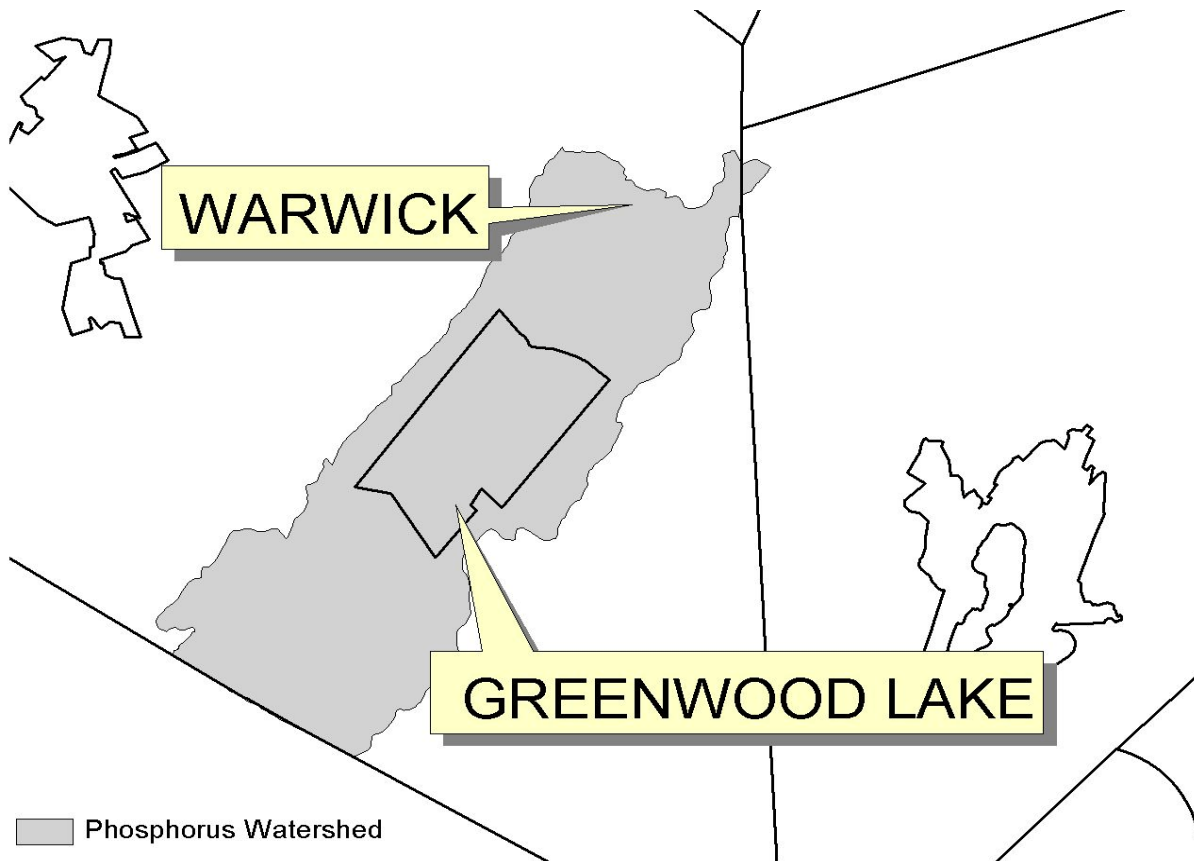


Figure 4 - Oscawana Lake Watershed

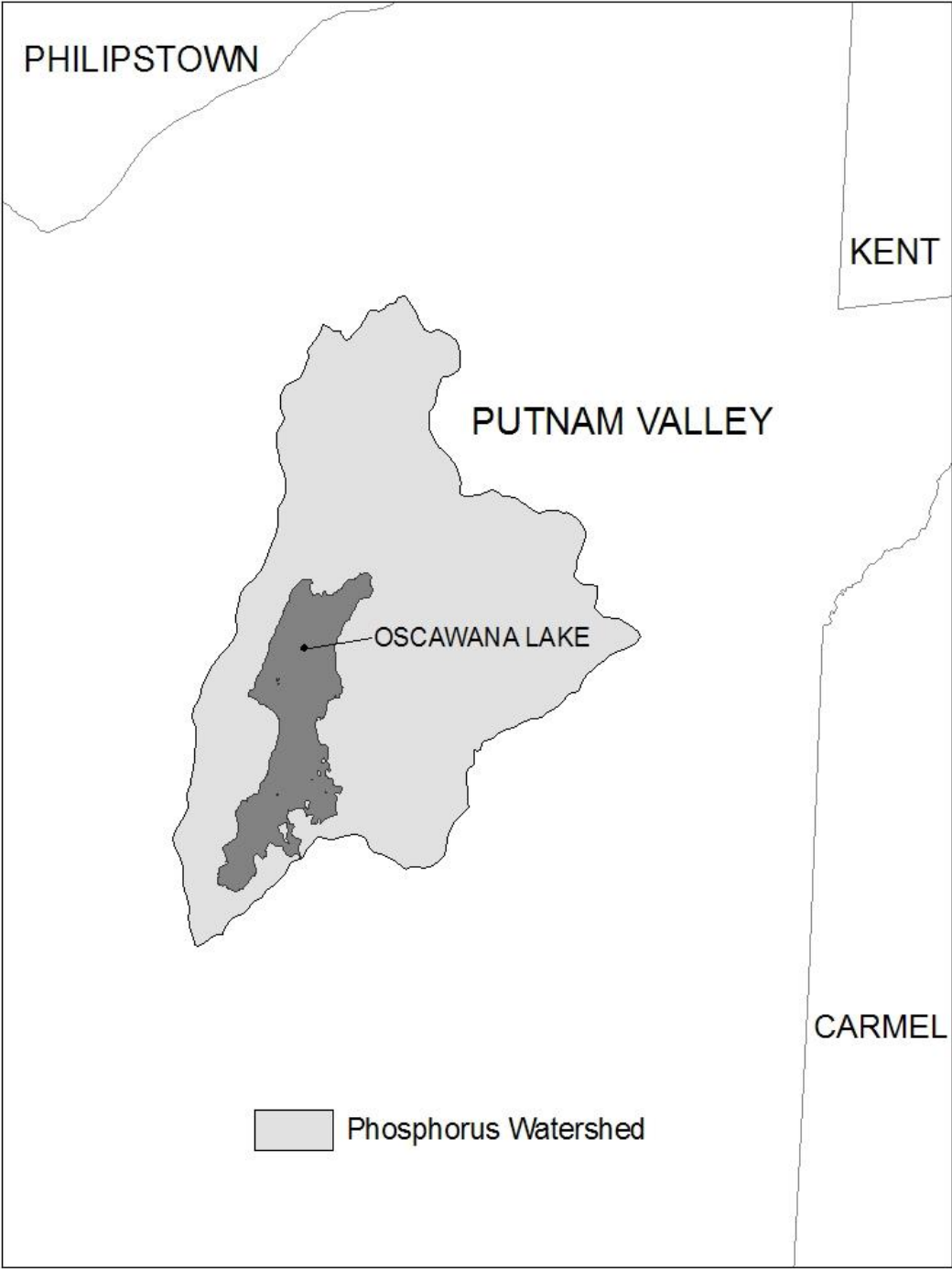
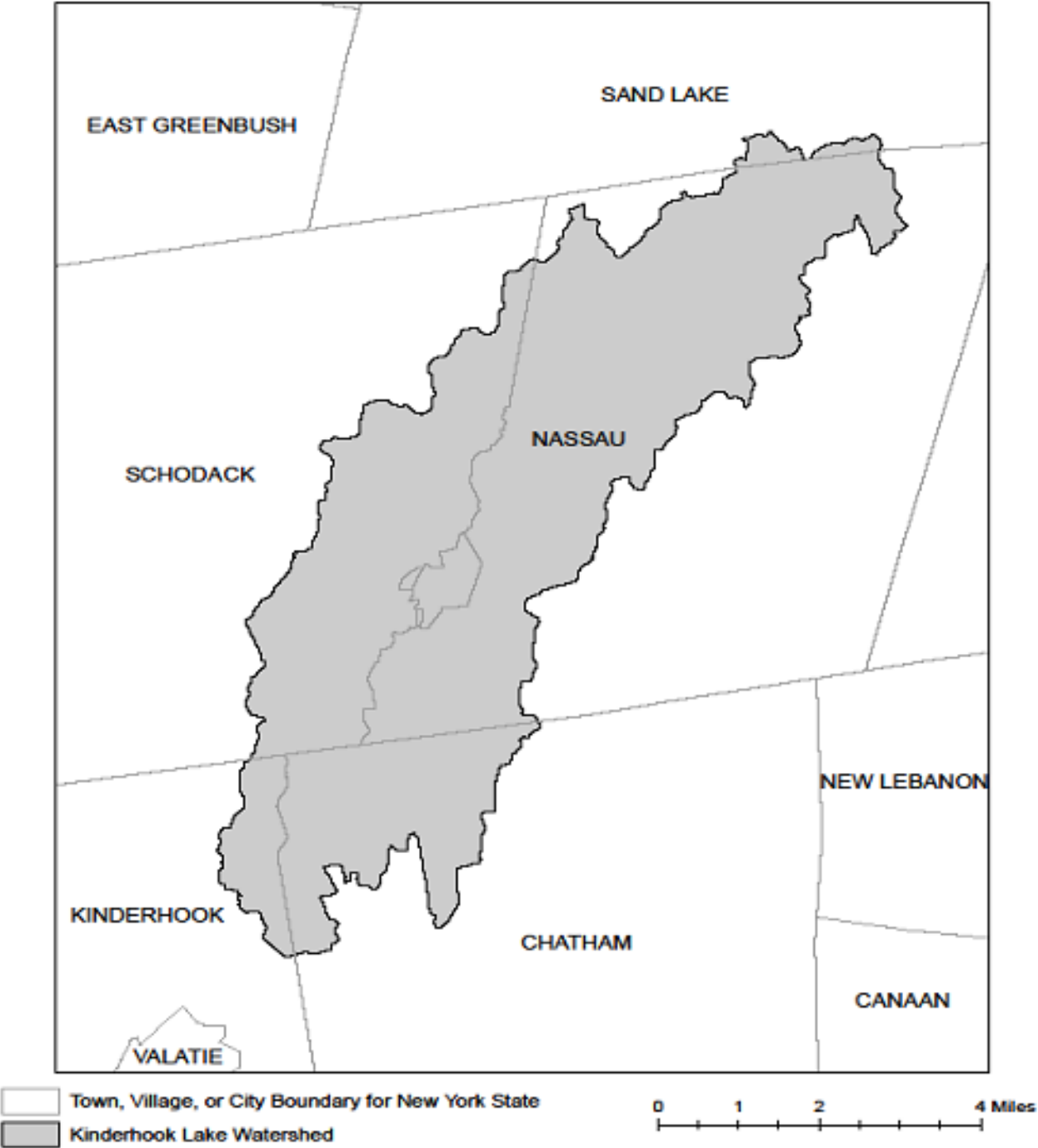


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C
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APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

APPENDIX F – List of NYS DEC Regional Offices

<u>Region</u>	<u>COVERING THE FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 TEL. (631) 444-0365	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 TEL. (631) 444-0405
2	BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4997	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PUTT CORNERS ROAD NEW PALTZ, NY 12561-1696 TEL. (845) 256-3059	100 HILLSIDE AVENUE, SUITE 1W WHITE PLAINS, NY 10603 TEL. (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1150 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, Po Box 296 RAY BROOK, NY 12977-0296 TEL. (518) 897-1234	232 GOLF COURSE ROAD WARRENSBURG, NY 12885-1172 TEL. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

APPENDIX F

NEW YORK STATE HISTORIC PRESERVATION OFFICE
(SHPO) “NO EFFECT LETTER”



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

September 13, 2019

Mr. Andrew Dangler
USACE Update Regulatory Field Office
1 Buffington Street
Building 10, 3rd Floor North
Watervliet, NY 12819

Re: USACE
Albany Port District Commission Industrial Park Project
City of Albany, Town of Bethlehem, Albany County, NY
18PR07273

Dear Mr. Dangler:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the visual simulation and the August 6, 2019 McFarland Johnson letter noting that the proposed building height has changed and could reach 85 feet in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources.

The visual simulation of the proposed building shows that the roof will be visible from the National Register eligible Papscaanee Island Historic District. As noted in our November 2009 Determination of Eligibility for Papscaanee Island, "Papscaanee Island is historically and archaeologically significant for its association with the Upper Hudson Valley's predominate native people, the Mohican..." "The rich soil along the flats and on Papscaanee Island were flooded annually and generations of Mohicans cleared and cultivated these areas."

While some buildings have been introduced into the landscape, these buildings are not directly across from one of the few remaining cultivated areas on the Island. Since only the top of the building will be visible, the SHPO continues to recommend that this undertaking will have **No Adverse Effect** on historic properties with the **condition** that non-reflective, earth toned roofing materials are utilized. Maintaining a non-reflective roof will minimize any visual intrusions and help maintain the agricultural setting of the Papscaanee Island Historic District.

If you have any questions, I can be reached at (518) 268-2179.

Sincerely,

A handwritten signature in cursive script that reads "Nancy Herter".

Nancy Herter
Archaeology Unit Program Coordinator



**Parks, Recreation,
and Historic Preservation**

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

December 9, 2021

Jordan Tate
Environmental Analyst
McFarland Johnson
60 Railroad Place
Suite 402
Saratoga Springs, NY 12866

Re: USACE
Marmen/Welcon Offshore Wind Tower Manufacturing Plant
Town of Bethlehem, Albany County, NY
21PR04693

Dear Jordan Tate:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources.

SHPO has reviewed the proposed cut/fill plan and construction depths, and the visual simulation from the Papscanee Island shoreline. We have no archaeological concerns with the proposed ground disturbing activities that will occur during this project. Based on the visual simulation, the SHPO concurs with the Stockbridge Munsee Community (SMC) THPO that the Marmen/Welcon Offshore Wind Tower Manufacturing Plant will have an adverse visual effect on the National Register eligible Papscanee Island Historic District (08303.000130).

SHPO will provide additional comments once the Acoustic Noise Assessment has been completed to measure the proposed project's noise impacts at the Papscanee Island Historic District and the SMC THPO's comments regarding noise impacts have been provided.

If you have any questions, I can be reached at Jessica.Schreyer@parks.ny.gov.

Sincerely,

A handwritten signature in cursive script that reads "Jessica E. Schreyer".

Jessica Schreyer
Scientist Archaeology

Stockbridge-Munsee Tribal Historic Preservation

Arvid E. Miller Library Museum
N8510 Mohheconnuck Road
Bowler, WI 54416

Extension Office
86 Spring Street
Williamstown, MA 01267

March 3, 2022

Andrew Dangler
Biologist/Senior Project Manager
Upstate New York Section
DEPARTMENT OF THE ARMY
US Army Corps of Engineers, ATTN: CENAN-OP-RU
1 Buffington St., Bldg. 10, 3rd Fl. North
Watervliet, NY 12189
Via email only

**Re: Port of Albany Expansion Project, Town of Bethlehem, Albany Co., NY
SHPO #18PR07273 /21PR04693**

Dear Mr. Dangler:

I am writing regarding the aforementioned project as part of our continuing Government-to-Government Section 106 consultation.

In review of the project's designs and the additional visual and audial assessments, Stockbridge-Munsee Community feels that its cultural resource concerns have now been satisfactorily addressed.

Our determination is that the Port of Albany project will have **No Adverse Effect** to Historic Properties. No further consultation is required unless the designs should change further.

If you have any questions, please feel free to contact our office.

Respectfully,



Bonney Hartley
Tribal Historic Preservation Manager
Stockbridge-Munsee Community

Cc: John Eddins, ACHP *Via email only*
Jessica Schreyer, NY SHPO *via email only*
David Witt, Charles Vandre, NY DEC, *via email only*
Robert Leslie, Town of Bethlehem, *via email only*
Megan Daly, Port of Albany, *via email only*
Steve Boisfort, David Rosa, Jordan Tate- Mc Farland Johnson, *via email only*

(413) 884-6048

Email: thpo@mohican-nsn.gov



**Parks, Recreation,
and Historic Preservation**

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

March 25, 2022

Jordan Tate
Environmental Analyst
McFarland Johnson
60 Railroad Place
Suite 402
Saratoga Springs, NY 12866

Re: USACE
Marmen/Welcon Offshore Wind Tower Manufacturing Plant
Town of Bethlehem, Albany County, NY
21PR04693

Dear Jordan Tate:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources.

SHPO has reviewed the Noise Assessment and updated Visual Simulations (provided via email, McFarland Johnson, Inc., 2/18/22) to evaluate the project's effects on the National Register eligible Papscaenee Island Historic District (08303.000130) and the Site Plan (McFarland Johnson, Inc., 3/18/22) showing the proposed 3.30-acre deed restricted area containing the vegetated area along the Hudson River shoreline. The vegetated area will provide a visual and acoustic buffer between the Papscaenee Island Historic District and the proposed manufacturing plant.

We note that the Stockbridge Munsee Community has issued their opinion (letter, dated 3/2/22) that this project will have No Adverse Effect on Historic Resources.

Based on this review, it is the opinion of the SHPO that no historic properties, including archaeological and/or historic resources, will be Adversely Affected by this undertaking with the condition that a Restrictive Deed Covenant is filed to protect and maintain the vegetated buffer along the Hudson River shoreline.

If you have any questions, I can be reached at Jessica.Schreyer@parks.ny.gov.

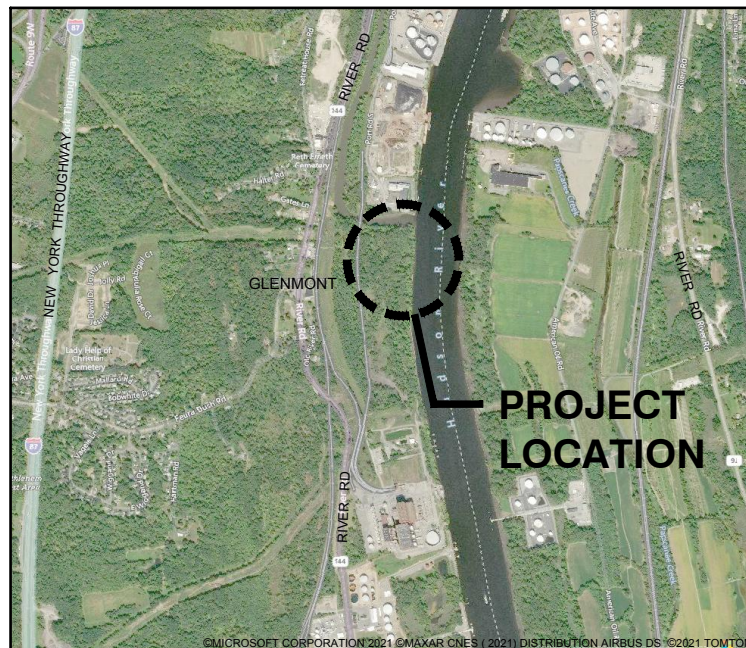
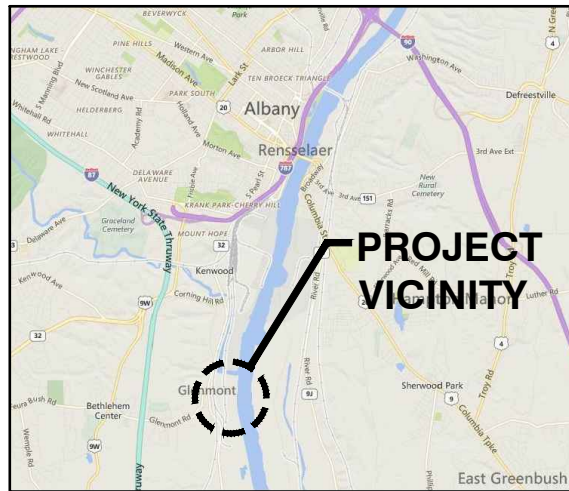
Sincerely,

Jessica Schreyer
Scientist Archaeology

APPENDIX G

DRAFT WHARF AND DREDGING E&SC PLANS

File: Q:\NY10949-01\20 CADD\ Active_Permits\1094901P-01_Plot.dwg, Plotted: 10/12/2021 3:17 PM by COKER, MAEVE; Saved: 10/12/2021 2:59 PM by MCOCKER



VICINITY AND LOCATION MAP
SCALE: N.T.S.

NOTES:

1. HORIZONTAL CONTROL REFERENCED TO NORTH AMERICAN DATUM OF 1983, STATE PLANE COORDINATE SYSTEM, NEW YORK, EAST ZONE, IN FEET.
2. WATER LEVEL DATUM IS BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AS FOLLOWS:
 - MEAN HIGHER HIGH WATER LEVEL (MHHW) = +3.78 (NAVD88)
 - MEAN HIGH WATER LEVEL (MHW) = +3.40 (NAVD88)
 - MEAN TIDE LEVEL (MTL) = +0.91 (NAVD88)
 - MEAN LOW WATER LEVEL (MLW) = -1.59 (NAVD88)
 - MEAN LOWER LOW WATER LEVEL (MLLW) = -1.81 (NAVD88)

PURPOSE: WHARF CONSTRUCTION
PERMIT SUBMITTAL-NOT TO BE USED
FOR CONSTRUCTION
DATUM: NAVD88



OWNER/APPLICANT:
ALBANY PORT DISTRICT COMMISSION
PORT OF ALBANY

IN: HUDSON RIVER
NEAR: SOUTH OF ALBANY
LOCATION: PORT OF ALBANY
106 SMITH BOULEVARD
ALBANY, NEW YORK 12202

WHARF DREDGING AND CONSTRUCTION

VICINITY AND LOCATION

SHEET 1 OF 5 DATE: (REV1) 2021-10-11

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PLAN - EXISTING CONDITIONS

150' 0' 150' 300'



SCALE: 1"=300'

PURPOSE: WHARF CONSTRUCTION
PERMIT SUBMITTAL-NOT TO BE USED
FOR CONSTRUCTION
DATUM: NAVD88



m&n engineering, p.c.

OWNER/APPLICANT:
ALBANY PORT DISTRICT COMMISSION
PORT OF ALBANY

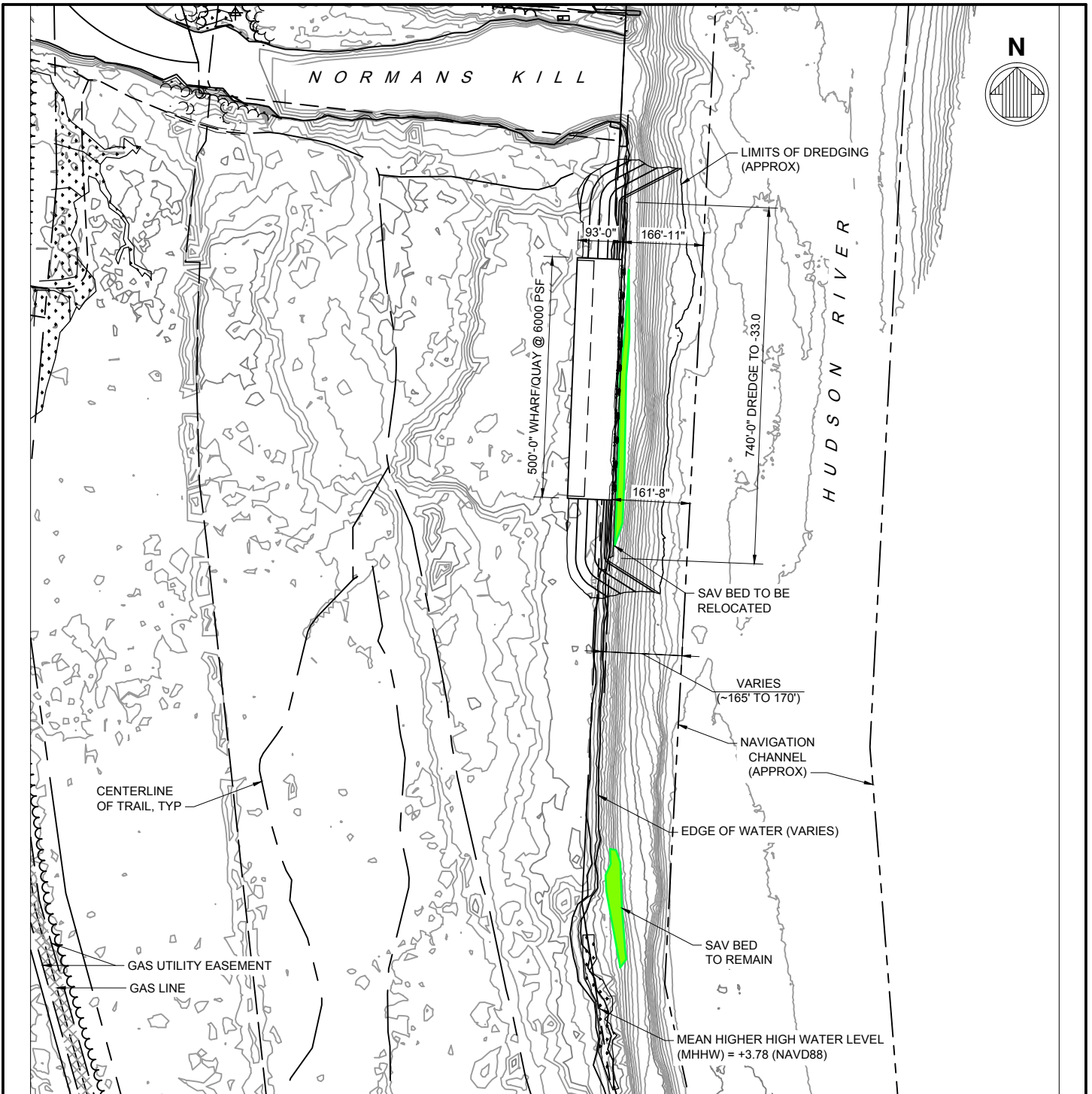
IN: HUDSON RIVER
NEAR: SOUTH OF ALBANY
LOCATION: PORT OF ALBANY
106 SMITH BOULEVARD
ALBANY, NEW YORK 12202

WHARF DREDGING AND CONSTRUCTION

PLAN - EXISTING CONDITIONS

SHEET 2 OF 5 DATE: (REV1) 2021-10-11

File: Q:\NY1\0949-01\20 CADD\ Permits\1094901P-03 - Plotted: 10/14/2021 9:47 AM by COKER, MAEVE ; Saved: 10/13/2021 2:09 PM by MCOCKER



PLAN - PROPOSED CONDITIONS

150' 0' 150' 300'



SCALE: 1"=300'

PURPOSE: WHARF CONSTRUCTION
PERMIT SUBMITTAL-NOT TO BE USED
FOR CONSTRUCTION
DATUM: NAVD88



m&n engineering, p.c.

OWNER/APPLICANT:
ALBANY PORT DISTRICT COMMISSION
PORT OF ALBANY

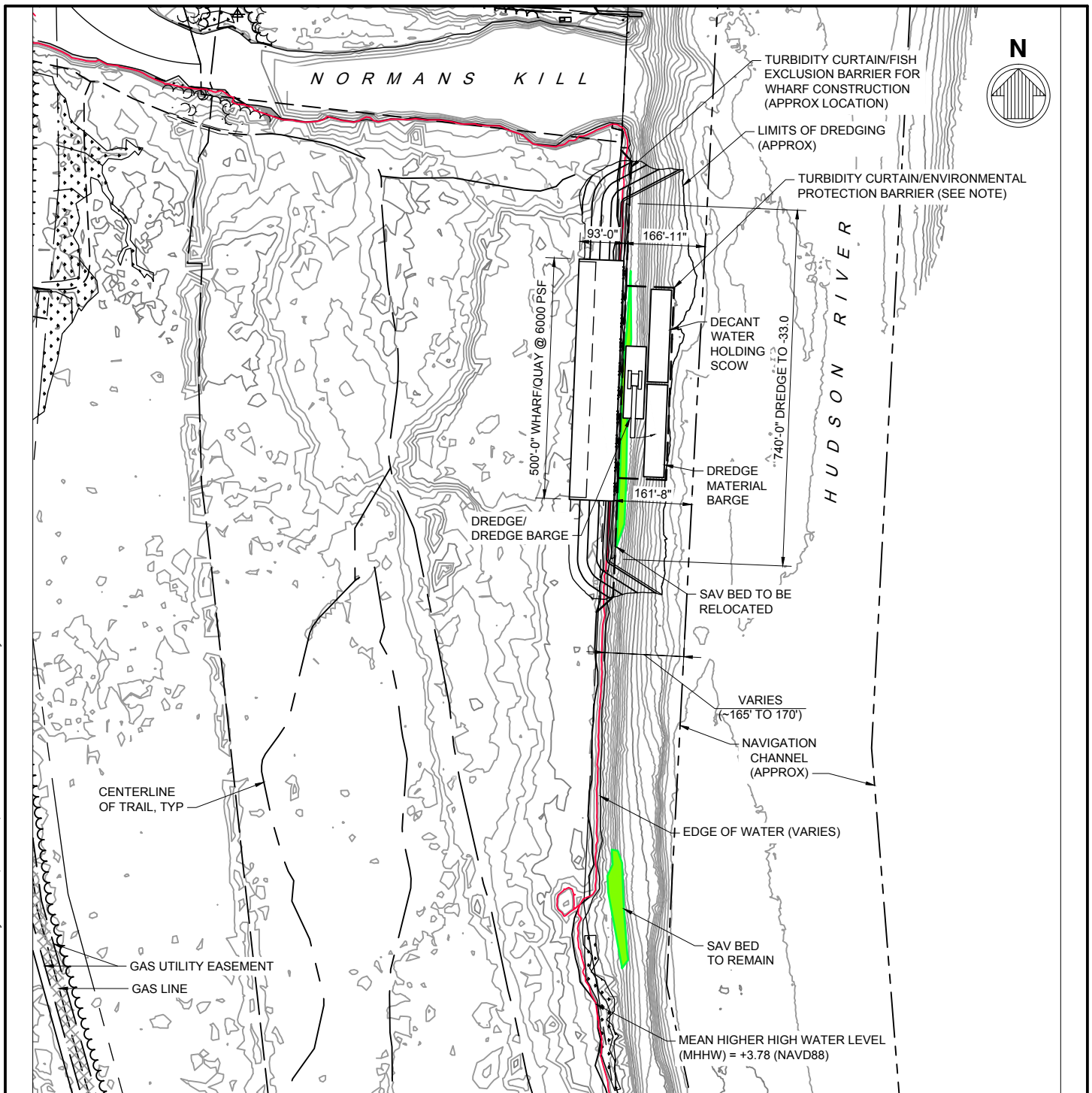
IN: HUDSON RIVER
NEAR: SOUTH OF ALBANY
LOCATION: PORT OF ALBANY
106 SMITH BOULEVARD
ALBANY, NEW YORK 12202

WHARF DREDGING AND CONSTRUCTION

PLAN - PROPOSED CONDITIONS

SHEET 3 OF 5 DATE: (REV1) 2021-10-11

File: Q:\NY1\0949-01\20 CADD\ Active\ Permits\1094901P-04 : Plotted: 10/14/2021 9:52 AM by COKER, MAEVE : Saved: 10/13/2021 2:09 PM by MCOCKER



PLAN - PROPOSED TEMPORARY ENVIRONMENTAL PROTECTION

150' 0' 150' 300'
SCALE: 1"=300'

NOTE: DREDGE EQUIPMENT AND ASSOCIATED TURBIDITY CURTAIN/ ENVIRONMENTAL PROTECTION BARRIER LOCATIONS VARY.

PURPOSE: WHARF CONSTRUCTION PERMIT SUBMITTAL-NOT TO BE USED FOR CONSTRUCTION
DATUM: NAVD88



m&n engineering, p.c.

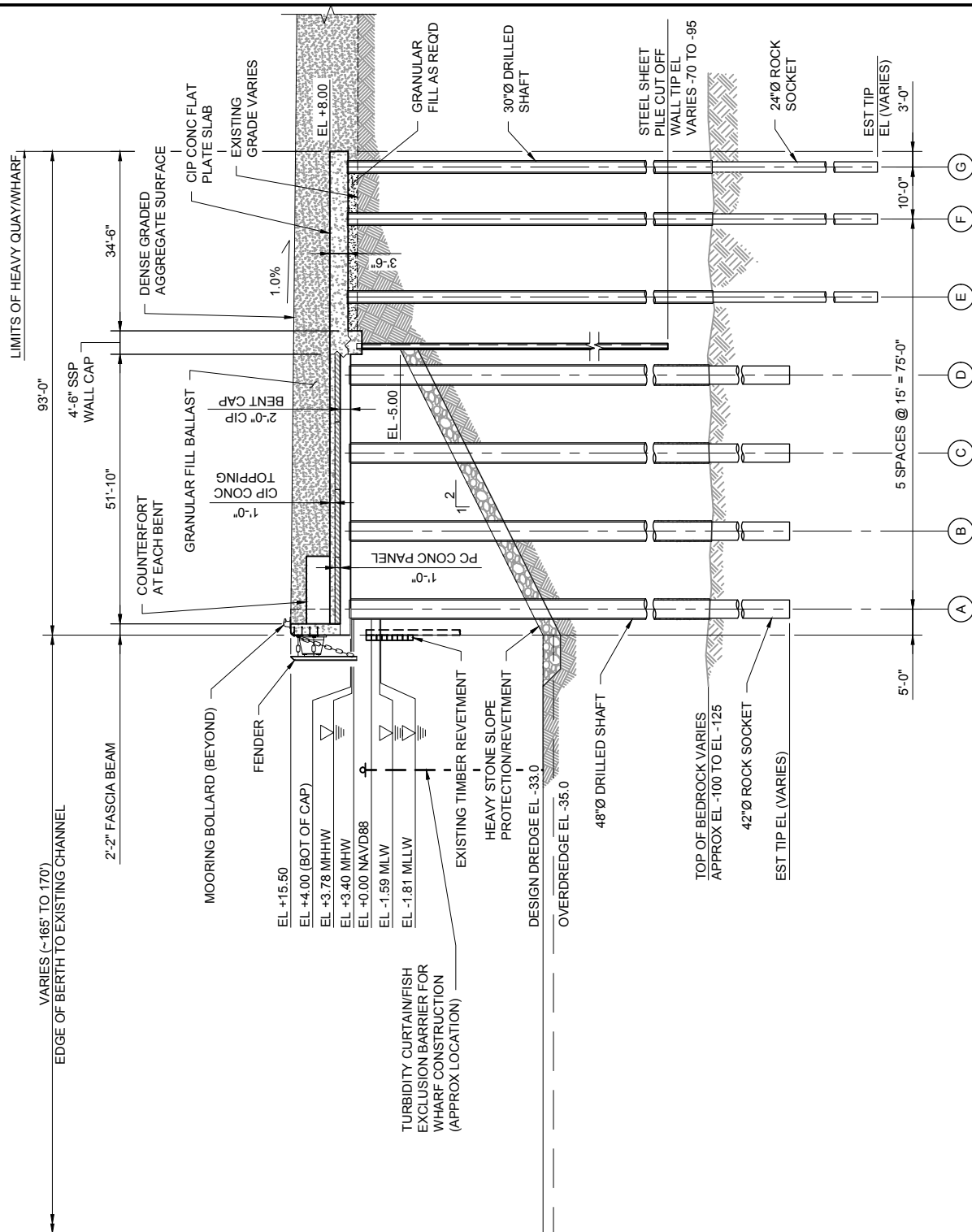
OWNER/APPLICANT:
ALBANY PORT DISTRICT COMMISSION
PORT OF ALBANY

IN: HUDSON RIVER
NEAR: SOUTH OF ALBANY
LOCATION: PORT OF ALBANY
106 SMITH BOULEVARD
ALBANY, NEW YORK 12202

WHARF DREDGING AND CONSTRUCTION

PLAN - PROPOSED TEMPORARY ENVIRONMENTAL PROTECTION

SHEET 4 OF 5 DATE: (REV1) 2021-10-11



NOTE: WATER SURFACE AND DREDGE ELEVATIONS ARE REFERENCED TO NAVD88.

PURPOSE: WHARF CONSTRUCTION
PERMIT SUBMITTAL-NOT TO BE USED
FOR CONSTRUCTION
DATUM: NAVD88



OWNER/APPLICANT:
ALBANY PORT DISTRICT COMMISSION
PORT OF ALBANY

IN: HUDSON RIVER
NEAR: SOUTH OF ALBANY
LOCATION: PORT OF ALBANY
106 SMITH BOULEVARD
ALBANY, NEW YORK 12202

WHARF DREDGING AND CONSTRUCTION

SECTION - WHARF AND DREDGING

SHEET 5 OF 5 DATE: (REV1) 2021-10-11

APPENDIX H

SOIL MANAGEMENT PLAN



ATLANTIC TESTING LABORATORIES

WBE certified company

Albany
22 Corporate Drive
Clifton Park, NY 12065
518-383-9144 (T)
atlantictesting.com

October 23, 2020

McFarland Johnson, Inc.
60 Railroad Place, Suite 402
Saratoga Springs, New York 12866

Attn: David Rosa

Re: Soil Management Plan
Port of Albany Expansion Project
Beacon Island Parcel
Bethlehem, Albany County, New York
MJ Project No. 18641.02
ATL Report No. AT5596CE-05-10-20

Ladies/Gentlemen:

Enclosed is a copy of the **Soil Management Plan** prepared for the referenced site. This report was completed in accordance with the standard form of agreement between McFarland Johnson, Inc., and Atlantic Testing Laboratories, Limited.

Please contact our office should you have any questions, or if we may be of further assistance.

Sincerely,
ATLANTIC TESTING LABORATORIES, Limited

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SOIL MANAGEMENT PLAN

**PORT OF ALBANY EXPANSION PROJECT
BEACON ISLAND PARCEL
BETHLEHEM, ALBANY COUNTY, NEW YORK**



WBE certified company

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1.0 INTRODUCTION

1.1 Purpose

Atlantic Testing Laboratories, Limited (ATL) was retained by McFarland Johnson, Inc., on behalf of the Albany Port District Commission, to prepare a Soil Management Plan that can be used to address areas at the Beacon Island parcel that are impacted with ash material and related debris. The purpose of this Soil Management Plan is to summarize procedures to implement for planned excavation activities, installation of a soil cover system in areas of ash material or other potential impacted fill, and management of waste soil and/or groundwater. This Soil Management Plan also addresses protocol for monitoring and sampling and analysis during excavation and site work, and recommendations for installation of vapor barrier systems beneath proposed buildings.

1.2 Site Description

The project site is the Beacon Island parcel located to the east of River Road (County Route 144) and along the west side of the Hudson River, in the Town of Bethlehem, Albany County, New York. The Beacon Island parcel is comprised of approximately 80 acres, and is the site of a planned expansion for the Port of Albany. A Site Location Map, showing the approximate location of the subject site, is included in Appendix A.

Information provided to ATL by McFarland Johnson, Inc., indicates that planned redevelopment for the site includes land clearing, excavation and backfill operations, dredging sediment for the area along the Hudson River, and construction of facilities to be associated with the Port of Albany.

1.3 Plan Contents and Organization

This Soil Management Plan includes an introductory section (Section 1), a summary of information obtained from prior investigations (Section 2), pertinent coordination items when work is scheduled for impacted areas (Section 4) and a description of procedures that may be warranted for various site work activities (Section 3), a description of procedures to be implemented during specific site work activities (Sections 5 through 12), and a description of reports and records that should be maintained for work completed at the subject site (Section 13). Appendices are included to provide supplemental information that is considered pertinent to the items described in the Soil Management Plan and are referenced where applicable.

This Soil Management Plan is organized in a manner to allow for site representatives to review and identify applicable measures to be implemented for different areas of work and types of work activities being performed. Section 1.4 describes different areas of work and the associated work activities that may be applicable. A Soil Management Plan Flow Chart, contained in Appendix B, is provided to outline tasks to be implemented for management of existing on-site soil and soil that may be imported for use as fill.

1.4 Applicability

1.4.1 Areas to be Developed with Buildings/Structures

Areas to be developed with buildings or other structures will require appropriate soil management procedures, in association with the excavation, backfill, and grading for the

installation of foundation systems, and with the construction of slabs-on-grade for buildings. Following is a summary of the soil management procedures to be implemented, with reference to applicable sections of this Soil Management Plan.

- Excavation for foundations in areas of known/suspect impacts from ash: Refer to **Section 5** and **Item A** of Soil Management Plan Flow Chart (Appendix B)
- Excavation for foundations in areas without known/suspect impacts from ash: Refer to **Section 6** and **Item B** of Soil Management Plan Flow Chart (Appendix B)
- Backfill in areas of construction: Refer to **Section 11** and **Items E and F** of Soil Management Plan Flow Chart (Appendix B)
- Construction of slabs-on-grade for buildings: Refer to **Section 9** and **Item E** of Soil Management Plan Flow Chart (Appendix B)

1.4.2 Areas to be Developed with Asphalt/Concrete Surfaces

Areas to be developed with asphalt or concrete surfaces (e.g., driveways, parking lots, walking paths) will require appropriate soil management procedures, in association with the excavation, backfill, and grading prior to installation of the asphalt or concrete surface cover. Following is a summary of the soil management procedures to be implemented, with reference to applicable sections of this Soil Management Plan.

- Excavation and site preparation in areas of known/suspect impacts from ash: Refer to **Section 5** and **Item A** of Soil Management Plan Flow Chart (Appendix B)
- Excavation and site preparation in areas without known/suspect impacts from ash: Refer to **Section 6** and **Item B** of Soil Management Plan Flow Chart (Appendix B)
- Backfill in areas of construction: Refer to **Section 11** and **Items E and F** of Soil Management Plan Flow Chart (Appendix B)

1.4.3 Areas to be Developed with Lawn/Landscaping

Areas to be redeveloped with lawn or landscaping will require appropriate soil management procedures, in association with the excavation, backfill, grading, and soil cover system installation. Following is a summary of the soil management procedures to be implemented, with reference to applicable sections of this Soil Management Plan.

- Excavation and site preparation in areas of known/suspect impacts from ash: Refer to **Section 5** and **Item A** of Soil Management Plan Flow Chart (Appendix B)
- Excavation and site preparation in areas without known/suspect impacts from ash: Refer to **Section 6** and **Item B** of Soil Management Plan Flow Chart (Appendix B)
- Backfill and soil cover system in areas of lawns and landscaping: Refer to **Sections 8 and 11** and **Items E and F** of Soil Management Plan Flow Chart (Appendix B)

1.4.4 Areas to Remain Wooded

Areas of the subject site that are currently wooded and are planned to remain wooded will not require implementation of specific soil management procedures at this time. In the event that these areas are scheduled for redevelopment in the future, or if there are any ground intrusive activities performed, appropriate soil management procedures should then be provided.

1.4.5 Areas to be Dredged

Management of areas where sediment is planned for dredging is described in general for this Soil Management Plan; however, additional planning and coordination with the New York State Department of Environmental Conservation (NYSDEC), United States Army Corps of Engineers (USACE), and other applicable regulatory agencies will be necessary prior to performing the dredging operations and the handling and reuse or disposal of dredged sediments. Refer to **Section 10** and **Item D** of the Soil Management Plan Flow Chart (Appendix B).

2.0 BACKGROUND INFORMATION AND AREAS OF CONCERN

2.1 Summary of Previous Investigations

ATL performed sediment sampling at the subject site in June 2019 and August 2020, and a subsurface investigation and soil sampling in September 2020. Additionally, ATL was provided with a draft Phase II Environmental Site Assessment report prepared by Bergmann Associates for the Port of Albany and dated April 6, 2017.

The sediment sampling conducted by ATL in June 2019 included the advancement of 5 cores, and the sediment sampling conducted by ATL in August 2020 included the advancement of 10 cores. The cores were advanced in the areas scheduled for dredging as part of planned redevelopment for the site. Sediment samples were collected from the core locations and submitted for subsequent laboratory analysis. Laboratory analysis parameters for the June 2019 sampling event were selected to include compounds described in NYSDEC Technical and Operational Guidance Series (TOGS) 5.1.9, whereas the samples collected in August 2020 were analyzed for parameters to evaluate potential reuse options in addition to the NYSDEC TOGS 5.1.9 parameters. A complete summary of findings for the previously completed sediment sampling and analysis are provided in ATL Report No. CD4644CE-01-07-19, dated July 15, 2019, ATL Report No. CD4644CE-01-07-19 Addendum 1, dated August 2, 2019, and ATL Report No. AT5596CE-03-09-20 dated September 24, 2020.

The subsurface investigation and soil sampling conducted by ATL in September 2020 included the advancement of 45 probes. The probes were advanced in accessible areas throughout the site, to assess the presence or absence of ash material. Additionally, soil samples were collected from locations without ash material to evaluate potential reuse options for consideration during site redevelopment. The subsurface investigation identified multiple locations where ash material is present, but did not identify obvious visual or olfactive evidence of petroleum or chemical-related contamination. Soil samples were collected from areas without ash material, including 22 samples for analysis of volatile organic compounds (VOC), and 11 samples for analysis of semi-VOC, polychlorinated biphenyls (PCB), pesticides, metals, and cyanide. With a few exceptions, laboratory analysis results for the soil samples collected from areas without ash material were below 6 NYCRR Part 360 fill material pre-determined beneficial use criteria and below NYSDEC Unrestricted Use Soil Cleanup Objectives (SCO) listed in 6 NYCRR Part 375 and/or NYSDEC CP-51 document. A general summary of the findings for the subsurface investigation previously completed by ATL is provided as Table C-1 in Appendix C. A complete summary of findings is provided in ATL Report No. AT5596CE-04-10-20, dated October 22, 2020.

The Phase II ESA conducted by Bergmann Associates in February 2017 included the advancement of 12 test pits and 8 borings, and the installation of temporary monitor wells at 3 of the boring locations. Information in the draft Phase II ESA report indicates that coal ash was observed throughout the depths for 3 of the test pits and a fourth test pit exhibited the presence of railroad ties covered in a black tar-like substance at depths of 8 to 12 feet below ground surface. Of the 8 borings advanced during this investigation, 7 exhibited evidence of coal ash. A surface soil sample was collected from the initial 2 inches for each boring. Subsurface soil samples were also collected from the borings at varying depths. There were 3 temporary monitor wells installed for collection of groundwater samples. The soil and groundwater samples were laboratory analyzed for VOC, semi-VOC, cyanide, pesticides, PCB, and target compound list (TCL) metals. With the exception of metals, target compounds for the referenced analytical parameters were non-detect for each of the soil and groundwater samples. A general summary of the findings for the subsurface investigation previously completed by Bergmann Associates is provided as Tables C-2 and C-3 in Appendix C. The report prepared by Bergmann Associates and dated April 6, 2017, should be referenced for additional details pertaining to the findings of the subsurface investigation.

2.2 Known Locations of Impacted Soil

Data and information from the previous subsurface investigation activities indicates that ash material is present at the site in a widespread condition. The ash material has been predominantly observed on the west side of the subject site. No obvious visual or olfactive evidence of petroleum or chemical-related contamination was observed at the locations investigated.

The Aerial Overview of Affected Locations, contained in Appendix D, shows approximate locations for the borings, test pits, and probes previously advanced at the subject site, along with an indication of which exhibited the presence of ash material. The referenced drawing also shows an approximate delineation of areas where ash material is expected to be present, areas where ash material is not expected, and areas that are considered to potentially contain ash material. The areas shown on the drawing are based on existing available data and not intended to represent an exact delineation for the locations of ash material.

3.0 COORDINATION OF WORK

3.1 Roles and Responsibilities

The soil management procedures described herein should be coordinated and conducted by firms and individuals who are familiar with the conditions of the Soil Management Plan, have an understanding of the known or suspected conditions in different areas of the subject site, and have related experience and capabilities to implement the applicable work activities. While the Owner of the property has responsibility for the implementation of the Soil Management Plan, it is anticipated that performance of work activities associated with the Soil Management Plan would be coordinated and completed by design professionals, contractors, and environmental consultants who are retained by the Owner. The following table provides a summary of the primary roles and responsibilities for implementation of the Soil Management Plan.

Role	Responsibilities
Owner	• Retain and coordinate with Design Professionals, Contractors, and Environmental Consultants for performance of site work pursuant to conditions of the Soil Management Plan • Maintain site records and documentation for work completed pursuant to Soil Management Plan
Design Professionals	• Incorporate applicable provisions of the Soil Management Plan into design plans and specifications for planned site redevelopment • Coordinate with Owner, Contractors, and Environmental Consultants during design and construction phases to confirm work is completed as planned
Contractors	• Correspond with NYSDEC (and other regulatory agencies, as applicable) for notifications of work activities • Perform site work activities, including, but not limited to, excavation, grading, placement and compaction of backfill, dust control, groundwater management, soil cover system installation, vapor barrier system installation, construction, and waste transport and disposal
Environmental Consultants	• Provide guidance and assistance with implementation of the Soil Management Plan • Correspond with NYSDEC (and other regulatory agencies, as applicable) to discuss clarifications or modifications to conditions of the Soil Management Plan • Conduct monitoring and soil screening during performance of work activities that affect impacted or contaminated soil • Conduct air monitoring during ground intrusive activities that affect impacted or contaminated soil • Perform soil sampling and laboratory analysis for waste materials, fill materials, and excavation areas

3.2 Project Notifications

Within 14 days, and no less than 3 days, prior to commencing work activities that may affect areas of the subject site that are impacted with ash, the NYSDEC should be notified of the planned work. This notification should be performed by the Owner and/or Contractor performing the site work. The Design Professional and Environmental Consultant should also be similarly notified.

3.3 Spill Reporting/Administration

The subject site is known to have areas impacted with ash and related debris. Other types of contamination (i.e., petroleum, chemical) have not been encountered at locations of past investigations. The NYSDEC must be notified in the event that petroleum- or chemical-related contaminated soil is discovered on the project site. This notification will need to be provided directly to the NYSDEC Spill Hotline (telephone number 1-800-457-7362).

4.0 GENERAL SITE WORK AND SOIL MANAGEMENT PLAN CONDITIONS

4.1 Health and Safety

In addition to construction site health and safety, site personnel should be aware of the contaminants of concern associated with the ash material (metals) and utilize appropriate control methods, personal protective clothing, and personal protective equipment during the handling and management of impacted materials. Contractors working at the subject site should perform work pursuant to a health and safety plan that is specific to their scope of work and associated hazards or potential hazards.

4.2 Groundwater Removal and Management (If Applicable)

In the event that there is significant groundwater inflow in a zone of contaminated soil, a vacuum truck should be provided to remove the infiltrated groundwater as the excavation progresses or at the completion of excavation activities. Alternatively, groundwater can be pumped into a frac tank(s) or other appropriate receptacles and temporarily stored on-site prior to on-site treatment and discharge or transfer and disposal off-site.

4.3 Dust Control and Air Monitoring

Fugitive dust and vapors should be minimized or mitigated during the excavation and handling of contaminated soil, if encountered. In the event that particulates and/or vapors represent a potential concern for the work area and/or surrounding areas, particulates and/or vapors should be monitored during ground intrusive activities associated with contaminated soil by setting up real-time instrumentation at locations upwind and downwind of the project area. Assessment for airborne dust would be performed using particulate monitors capable of measuring particulate matter less than 10 microns (PM₁₀). Assessment for vapors (applicable to areas where petroleum- or chemical-related contamination is encountered) would be performed using a photoionization detector (PID) to screen the ambient air for the measurable presence of VOC.

If air monitoring for particulates is conducted, an action level of 0.15 milligrams per cubic meter (mg/m³) should be used for PM₁₀ concentrations associated with the project work area. If screening is performed for ambient airborne VOC concentrations, an action level of 5 parts per million (ppm) should be used for the project work area. These action levels are consistent with the NYSDEC DER-10 "Technical Guidance for Site Investigation and Remediation" and the New York State Department of Health (NYSDOH) "Generic Community Air Monitoring Plan."

In the event that the PM₁₀ action level is exceeded for the work site (downwind monitoring station), the upwind background level should be immediately confirmed and it should be determined whether the work site (downwind) level exceeds the upwind background by greater than 0.1 mg/m³. For any such exceedance, work activities should temporarily cease and dust suppression techniques should be implemented. Dust suppression techniques may include some or all of the following (as cited from Appendix 1B of the NYSDEC DER-10):

- Applying water on haul roads
- Wetting equipment and excavation faces
- Spraying water on buckets during excavation and dumping
- Hauling materials in properly tarped or watertight containers

- Restricting vehicle speeds to 10 mph
- Covering excavated areas and material after excavation activity ceases
- Reducing the excavation size and/or number of excavations

In the event that the VOC action level is exceeded for the work site (downwind monitoring station), the upwind background level should be immediately confirmed and it should be determined whether the work site (downwind) level exceeds the upwind background by greater than 5 ppm. For any such exceedance, work activities should temporarily cease while monitoring continues. If the concentrations readily decrease below 5 ppm over background, work activities can resume. If the concentrations do not readily decrease and a definitive source can not be eliminated, the work site and on-site work activities would require further evaluation to determine an appropriate course of action.

4.4 Personnel and Equipment Decontamination

Equipment that is in contact with contaminated soil should be decontaminated, as necessary to prevent cross-contamination to other areas. Equipment and tools can be decontaminated by initially scrubbing the bulk material from the item, cleaning with a phosphate-free detergent and tap water wash, rinsing with tap water, and rinsing with distilled water. In order to contain decontamination liquids, a decontamination pad, of sufficient size to accommodate the affected portions of equipment, can be constructed using double layers of polyethylene sheeting as a base and a suitable material (i.e., lumber, clean soil, hay bales) for a perimeter berm. A more durable setup would be necessary if larger, heavier items need to be decontaminated. The polyethylene sheeting should be wrapped around the perimeter berm. Wastewater generated from decontamination activities shall be disposed of pursuant to applicable local, state and federal requirements.

5.0 EXCAVATION IN AREAS IMPACTED WITH ASH AND DEBRIS

5.1 Soil Removal and Stockpile

Soil that is impacted with ash and requires excavation for planned site redevelopment activities will need to be transported off-site for disposal. In consideration of the ash materials being widespread at various locations of the subject site, and the soil cover system that will be implemented as described in other sections of this Soil Management Plan, the areal extent of excavation for ash and debris wastes will be only as necessary to complete the scheduled site redevelopment. It is intended that the depths of removal be similarly limited to scheduled depths of excavations; however, if existing available information suggests that waste ash/debris exists at only a limited distance below scheduled depths of excavations, removal of the additional material should be conducted to limit the amount of material that would remain below permanent structures or site features to be constructed.

Excavated soil should be field examined for the visual and/or olfactive indicators of the presence of ash and debris materials or the potential presence of petroleum- or chemical-related impacts. In the event that petroleum- or chemical-related impacts are identified, procedures described in Section 7 should be implemented.

Excavated soil should be segregated between soil that is impacted with ash and overburden soil that does not exhibit visual evidence of these wastes. The impacted soil should be stockpiled or directly loaded for subsequent transport and disposal. The

overburden soil can be processed for reuse on-site, provided applicable conditions are satisfied (reference Section 11).

For impacted soil that is stockpiled on-site, the selected location(s) should be an area not susceptible to flooding or inundation of water during precipitation events, readily accessible to equipment that will be utilized for loading and hauling the material, and located away from stormwater or site drainage components. Any contaminated soil stockpile would need to be placed on and covered with 6-mil polyethylene sheeting or other comparable impervious material that can be readily removed and disposed of. The following items should be applicable to stockpiles for contaminated soil materials.

- Polyethylene sheeting or other impervious membrane used for the base of the soil stockpile should be placed with sheets overlapping a minimum of 1 foot.
- The base of the soil stockpile should be bermed at the perimeter to contain the soil stockpile and potential runoff during precipitation events. The berm materials, which can be comprised of mounds of clean soil material, hay bales, lumber, or other readily available suitable materials, should be placed along the perimeter and wrapped with the polyethylene sheeting or other impervious membrane that is used for the base of the soil stockpile. To minimize extraneous handling of materials and the size of the completed soil stockpile area, the berm perimeter can initially be constructed along 2 sides, and the remaining 2 sides can be constructed after all soil material is placed in the stockpile or temporarily bermed at the end of each workday.
- The height and slopes of the soil stockpile should be limited such that slope stability is not compromised during storage or the loading process.
- The soil stockpile should be covered with the polyethylene sheeting upon placement of all impacted soil material or at the end of each workday. Seams should be overlapped a minimum of 1 foot. The stockpile cover should be sufficiently weighted to contain the stored soil and resist damage from wind. Materials used to weigh down and stabilize the stockpile cover should consist of readily available materials that will not tend to damage the cover upon placement (e.g., clean soil material, sand bags, tires).
- Any temporary on-site soil stockpiles should be periodically inspected to ensure that material continues to be contained and is not released to the surrounding environment. The temporary on-site soil stockpiles will need to be properly protected and maintained until removal and off-site disposal. Polyethylene sheeting should be repaired or replaced as needed.
- Water from precipitation events that ponds on the surface of the stockpile cover should be removed upon discovery. The ponded water can be discharged on-site provided there is no contact with the petroleum-contaminated soil, and provided such activities are compliant with any stormwater discharge permits that may be applicable for the site or active construction work. Water that contacts the petroleum-impacted soil shall be properly containerized and managed as impacted waste water.
- Stockpiles with impacted soil should not remain on-site in excess of 60 days.

5.2 Excavation Monitoring and Soil Sampling

A representative of the Environmental Consultant should be on-site during excavation activities in the known or suspect areas of ash materials, to examine exposed soil for the presence of ash. The on-site representative should assist with determinations for the segregation of soil material that is considered relatively clean overburden to be reused

and soil material that would be classified as contaminated for off-site disposal. The on-site representative would also be available to provide guidance relative to the management of the contaminated subsurface materials.

Since it is planned to manage ash materials in-place for various locations at the subject site, soil samples are not proposed for excavation area(s) where waste ash/debris is removed, unless other potential contaminants of concern are encountered or suspected. If soil samples are to be collected from these excavation areas, the Environmental Consultant should coordinate with the NYSDEC to confirm analytical parameters, sampling locations, and quantity of samples.

5.3 Soil Reuse or Disposal

Overburden soil scheduled for reuse should be managed pursuant to procedures described in Section 11. Waste soil materials scheduled for disposal should be managed pursuant to procedures described in Section 12.

6.0 EXCAVATION IN NON-IMPACTED AREAS

6.1 Soil Removal and Stockpile

Soil that is excavated from areas without known or suspect impacts from ash can be removed and handled pursuant to routine construction and site work methods. Contractors performing the excavation work should be cognizant of the potential for impacted soil and should visually monitor the soil as removed to determine if it may be potentially affected. If ash material is identified, the excavation and soil management procedures should transition to the methods described in Section 5. In the event that petroleum- or chemical-related impacts are identified, procedures described in Section 7 should be implemented.

6.2 Excavation Monitoring

As indicated in Section 6.1, a representative of the Contractor should examine exposed soil for visual and/or olfactive indicators of potential contamination. If suspect impacted materials are encountered, a representative of the Environmental Consultant should be on-site for further assessment and monitoring in the affected area.

Unless suspect contamination is encountered, soil samples are not proposed for the excavations. If soil samples are to be collected from these excavation areas, the Environmental Consultant should coordinate with the NYSDEC to confirm analytical parameters, sampling locations, and quantity of samples.

6.3 Soil Reuse or Disposal

The excavated soil that is scheduled for reuse should be managed pursuant to procedures described in Section 11. In the event that the soil materials need to be disposed of, transport and disposal should be performed pursuant to procedures described in Section 12.

7.0 EXCAVATION IN AREAS OF PETROLEUM/CHEMICAL SPILLS

7.1 Soil Removal and Stockpile

If petroleum- or chemical-related contamination is encountered during site work, a spill will need to be reported (reference Section 3.3) and contaminated soil will need to be removed for disposal. The areal extent and depths of excavation for material affected by a spill should be inclusive of the entirety of the contaminated material, if feasible and practical. If the affected materials cannot be completely removed, an alternate approach to site remediation should be coordinated through the NYSDEC.

Excavated soil should be field examined for the visual and/or olfactive indicators of the petroleum- or chemical-related impacts, and field screened for the measurable presence of VOC with a photoionization detector (PID), equipped with the 10.6 eV lamp. In general, soil exhibiting obvious visual or olfactive evidence of contamination and/or greater than 10 ppm via ambient PID screening should be removed from the excavation, and processed for subsequent disposal. Overburden soil that does not exhibit these characteristics should be stockpiled on-site for subsequent sampling and evaluation of reuse options.

For petroleum-contaminated soil that is stockpiled on-site, the selected location(s) should be an area not susceptible to flooding or inundation of water during precipitation events, readily accessible to equipment that will be utilized for loading and hauling the material, and located away from stormwater or site drainage components. Any contaminated soil stockpile would need to be placed on and covered with 6-mil polyethylene sheeting or other comparable impervious material that can be readily removed and disposed of. The following items should be applicable to stockpiles for contaminated soil materials.

- Polyethylene sheeting or other impervious membrane used for the base of the soil stockpile should be placed with sheets overlapping a minimum of 1 foot.
- The base of the soil stockpile should be bermed at the perimeter to contain the soil stockpile and potential runoff during precipitation events. The berm materials, which can be comprised of mounds of clean soil material, hay bales, lumber, or other readily available suitable materials, should be placed along the perimeter and wrapped with the polyethylene sheeting or other impervious membrane that is used for the base of the soil stockpile. To minimize extraneous handling of materials and the size of the completed soil stockpile area, the berm perimeter can initially be constructed along 2 sides, and the remaining 2 sides can be constructed after all soil material is placed in the stockpile or temporarily bermed at the end of each workday.
- The height and slopes of the soil stockpile should be limited such that slope stability is not compromised during storage or the loading process.
- The soil stockpile should be covered with the polyethylene sheeting upon placement of all impacted soil material or at the end of each workday. Seams should be overlapped a minimum of 1 foot. The stockpile cover should be sufficiently weighted to contain the stored soil and resist damage from wind. Materials used to weigh down and stabilize the stockpile cover should consist of readily available materials that will not tend to damage the cover upon placement (e.g., clean soil material, sand bags, tires).
- Any temporary on-site soil stockpiles should be periodically inspected to ensure that material continues to be contained and is not released to the surrounding environment. The temporary on-site soil stockpiles will need to be properly

protected and maintained until removal and off-site disposal. Polyethylene sheeting should be repaired or replaced as needed.

- Water from precipitation events that ponds on the surface of the stockpile cover should be removed upon discovery. The ponded water can be discharged on-site provided there is no contact with the petroleum-contaminated soil, and provided such activities are compliant with any stormwater discharge permits that may be applicable for the site or active construction work. Water that contacts the petroleum-impacted soil shall be properly containerized and managed as impacted waste water.
- Stockpiles with impacted soil should not remain on-site in excess of 60 days.

7.2 Excavation Monitoring and Sampling

A representative of the Environmental Consultant should be on-site during excavation activities in the areas affected by a petroleum- or chemical-related spill, to examine exposed soil for visual and/or olfactive indicators of petroleum- or chemical-related impacts. Additionally, field screening for the measurable presence of VOC should be performed at the time of the excavation activities, using a portable PID, equipped with a 10.6 eV lamp.

The on-site representative should assist with determinations for the segregation of soil material that is considered relatively clean overburden to be reused and soil material that would be classified as contaminated for off-site disposal. The on-site representative would also be available to provide guidance relative to the management of the contaminated subsurface materials.

Post-excavation soil samples should be collected from the walls and floor of the excavation area(s) where petroleum- or chemical-contaminated soil is removed. The quantities of soil samples to be collected from these excavation areas should be selected pursuant to the following criteria:

- For excavations with a perimeter of less than 20 feet, 1 bottom and 1 sidewall sample should be collected.
- For excavations with a perimeter between 20 and 300 feet, samples from sidewalls should be collected at a frequency of 1 per 30 linear feet and samples from the bottom should be collected at a frequency of 1 per 900 square feet.
- For excavations with a perimeter of greater than 300 linear feet, the quantity of samples to be collected should be coordinated through the NYSDEC, or selected pursuant to the same criteria specified for an excavation perimeter between 20 and 300 feet.

The post-excavation soil samples should be laboratory analyzed for VOC, in accordance with EPA Method 8260; and semi-VOC, in accordance with EPA Method 8270 (base/neutral extractables).

7.3 Soil Reuse or Disposal

Overburden soil scheduled for reuse should be managed pursuant to procedures described in Section 11. Waste soil materials scheduled for disposal should be managed pursuant to procedures described in Section 12.

8.0 SOIL COVER SYSTEM INSTALLATION

A soil cover should be installed in areas of the site that are impacted with ash material and will be utilized as lawn or landscaped areas. The following criteria should be applicable to the soil cover system.

- The upper 6 inches of the soil cover should be suitable to sustain growth of appropriate vegetation at the ground surface.
- A minimum of 1 foot of soil cover should be placed above the ash material.
- The upper 1 foot of the soil cover should not have concentrations of contaminants that exceed the Restricted Residential Soil Cleanup Objectives (SCO) set forth in 6 NYCRR Part 375-6.
- Fill that is placed at a depth below the upper 1 foot of soil cover should not have concentrations of contaminants that exceed the Commercial SCO set forth in 6 NYCRR Part 375-6.
- A demarcation layer should be provided between the soil cover layer and underlying impacted soil, unless approval is obtained from the NYSDEC to forego installation of a demarcation layer.
- In the event that the soil cover system is breached, penetrated, or temporarily removed, restoration to original conditions (or equivalent) should be performed.
- Areas with a soil cover should be inspected at least annually, to assess existing conditions and determine if any restoration or repairs are necessary. Inspections should also be performed after severe weather events or significant site operations that may have adversely affected the soil cover system.

9.0 VAPOR BARRIER SYSTEM INSTALLATION

A vapor barrier system could be considered as an option for buildings that are constructed at the subject site, especially for buildings that would be occupied on a routine basis. While risks with vapor migration from contaminants associated with ash material is relatively low, installation of a vapor barrier system is generally an inexpensive addition to the construction of a new building. A vapor barrier system could consist of a gas permeable layer (i.e., crushed stone) and a soil gas retarder membrane (i.e., polyethylene or polyolefin sheeting) between the gas permeable layer and concrete slab. Soil gas collector pipes could also be installed in the gas permeable layer, and established as a passive system, active system, or passive with capability to be transitioned to an active system. If the Owner opts for installation of a vapor barrier system for buildings, the vapor barrier system should be incorporated into design plans and specifications for the specific building(s) being constructed.

10.0 DREDGING OF SEDIMENT

10.1 Sediment Removal and Management

Dredging of sediment would need to be conducted pursuant to conditions of applicable permits, as determined through the joint application for permits process with state agencies and the USACE. A dredging plan should also be developed to identify the dredging methods and management options. Direct coordination with the NYSDEC and reference to NYSDEC TOGS 5.1.9 would be necessary to ensure that necessary criteria for the dredging operations are addressed.

10.2 Sediment Reuse or Disposal

6 NYCRR Part 360.12(c)(1)(iv) describes conditions for pre-determined beneficial use of navigational dredged material; however, laboratory analysis data for previously collected samples at the site are not indicative of the sediment material meeting the requisite criteria. For navigational dredged material that does not meet the pre-determined beneficial use criteria, a petition for a case-specific beneficial use determination (BUD) could be considered.

Laboratory analysis results from previously collected sediment samples have identified elevated concentrations for metals and PCB, and as such, dredged sediment (or affected portions thereof) should be disposed of at a permitted solid waste management facility. If reuse is desired for portions that may exhibit lesser contaminant concentrations, a plan would need to be developed for segregation and sampling and analysis, along with submitting the petition for a case-specific BUD.

11.0 BACKFILL AND SOIL REUSE

11.1 Suitable On-Site Soil

Laboratory analysis results for samples previously collected from locations on the subject site not impacted with ash indicate that concentrations of contaminants generally do not exceed the 6 NYCRR Part 375 Commercial SCO and the 6 NYCRR Part 360 fill material pre-determined beneficial use criteria. This material should be suitable for on-site reuse below the upper 1 foot of soil cover. Additional sampling and analysis may be needed for areas not previously investigated and for previously sampled areas where exceedances were identified relative to the 6 NYCRR Part 375 Commercial SCO and/or the 6 NYCRR Part 360 fill material pre-determined beneficial use criteria. If additional sampling and analysis is performed, the quantity of samples and analytical parameters should be selected pursuant to the Sampling and Analysis Schedule for Fill in Appendix E.

11.2 Imported Fill

Fill material may need to be imported to the site, for use as the upper 1 foot of soil cover system or for other areas specific types of fill material. Imported fill material should be sampled and analyzed prior to delivery to the site, to confirm the material satisfies criteria established for use as a soil cover (reference Section 8) or criteria for use as general fill, restricted use fill, or limited use fill per 6 NYCRR Part 360.13. The quantity of samples and analytical parameters for imported fill should be selected pursuant to the Sampling and Analysis Schedule for Fill in Appendix E.

12.0 WASTE TRANSPORT AND DISPOSAL

The Contractor should provide for loading and transporting contaminated soil to a permitted solid waste management facility. Transport of waste materials will require use of trucks with applicable permits pursuant to 6 NYCRR Part 364 criteria. The disposal of waste soil materials should be documented via waste manifests and/or copies of waste disposal receipts.

Waste characterization soil samples should be collected and laboratory analyzed from the impacted material, pursuant to requirements of the selected disposal facility. The selected disposal facility should be contacted prior to excavation work to identify applicable

laboratory analysis parameters and quantity of samples, and to process waste profile documentation.

13.0 REPORTING AND RECORDKEEPING

Reports and records of site work should be maintained, as needed to document site conditions and soil management procedures that are completed. Reports and records to be maintained in association with this Soil Management Plan include, but may not be limited to, the following:

- As-built plans
- Waste manifests and/or disposal receipts for ash, soil, and groundwater
- Air monitoring data
- Excavation monitoring data
- Soil sampling and laboratory analysis data
- Site observation reports

APPENDIX A
Site Location Map



Site Location Map

Drawn by:
TSP

Scale:
Not to scale

Project No.:
AT5596

Date:
May 2020

Beacon Island Parcel
Bethlehem, Albany County, New York

ATLANTIC TESTING LABORATORIES, Limited

Albany, NY
Poughkeepsie,

Binghamton, NY
Syracuse, NY
Page 583 of 831

Canton, NY
Rochester, NY

Elmira, NY
Utica, NY

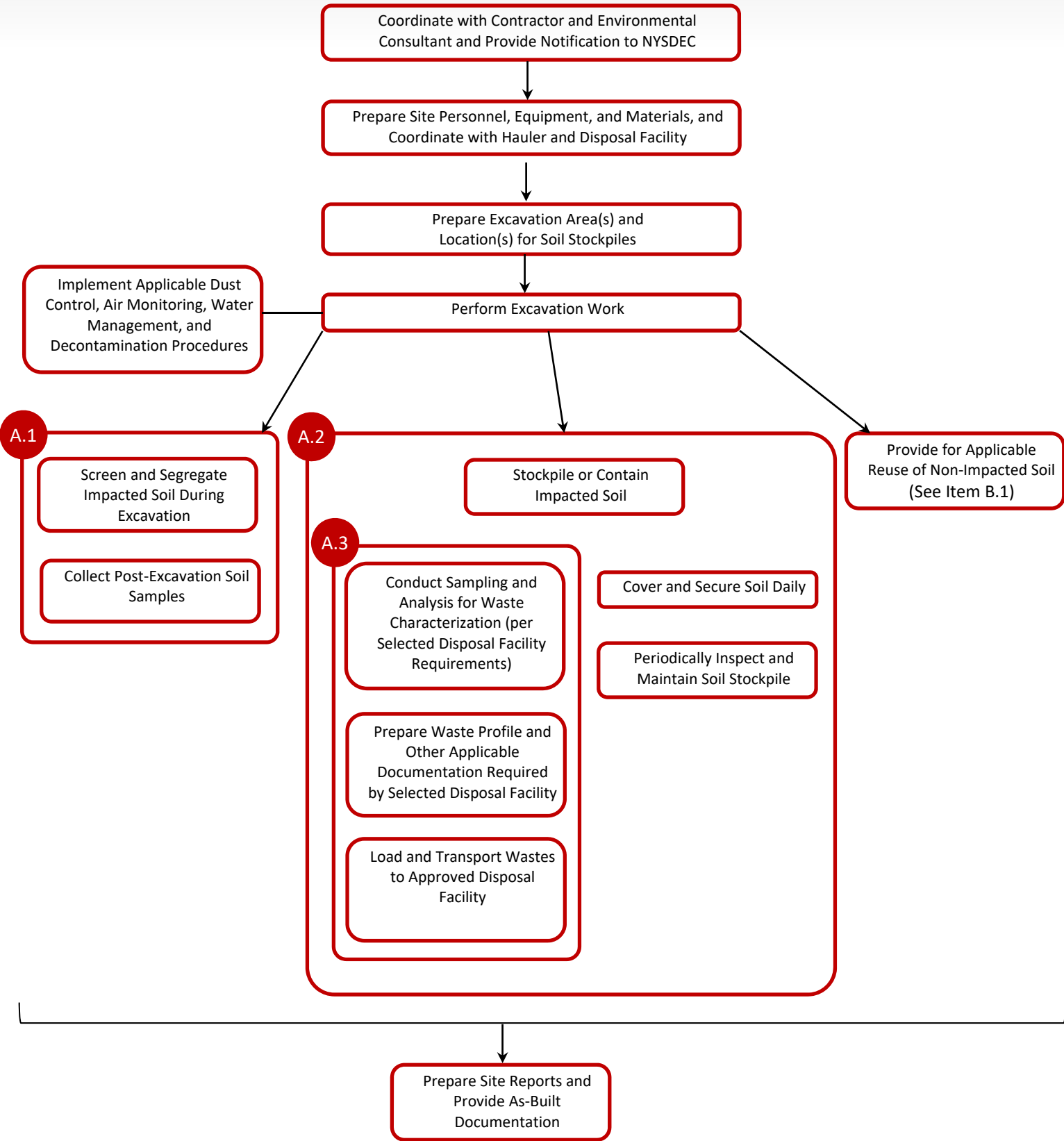
Plattsburgh, NY
Watertown, NY

APPENDIX B

Soil Management Plan Flow Chart

A

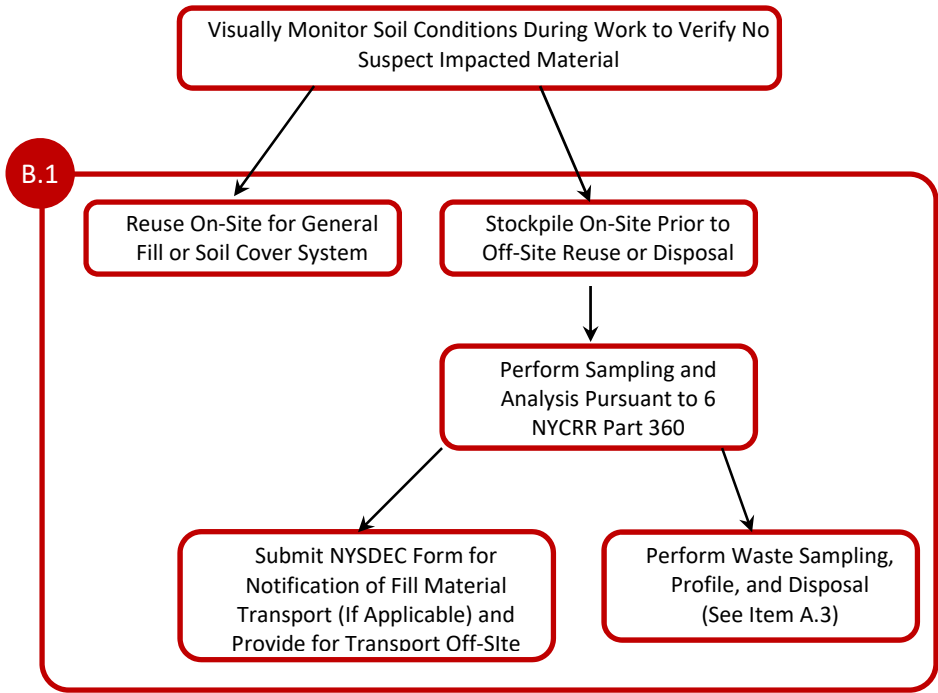
Soil Excavation/Ground Disturbance Activities –
Areas of Known/Suspect Impacts from Ash/Debris



1. If petroleum/chemical spill or contamination is encountered, implement soil management procedures described in Item C.
2. Reference Items D and E for procedures pertaining to site backfill/soil cover system and assessment for imported fill.

B

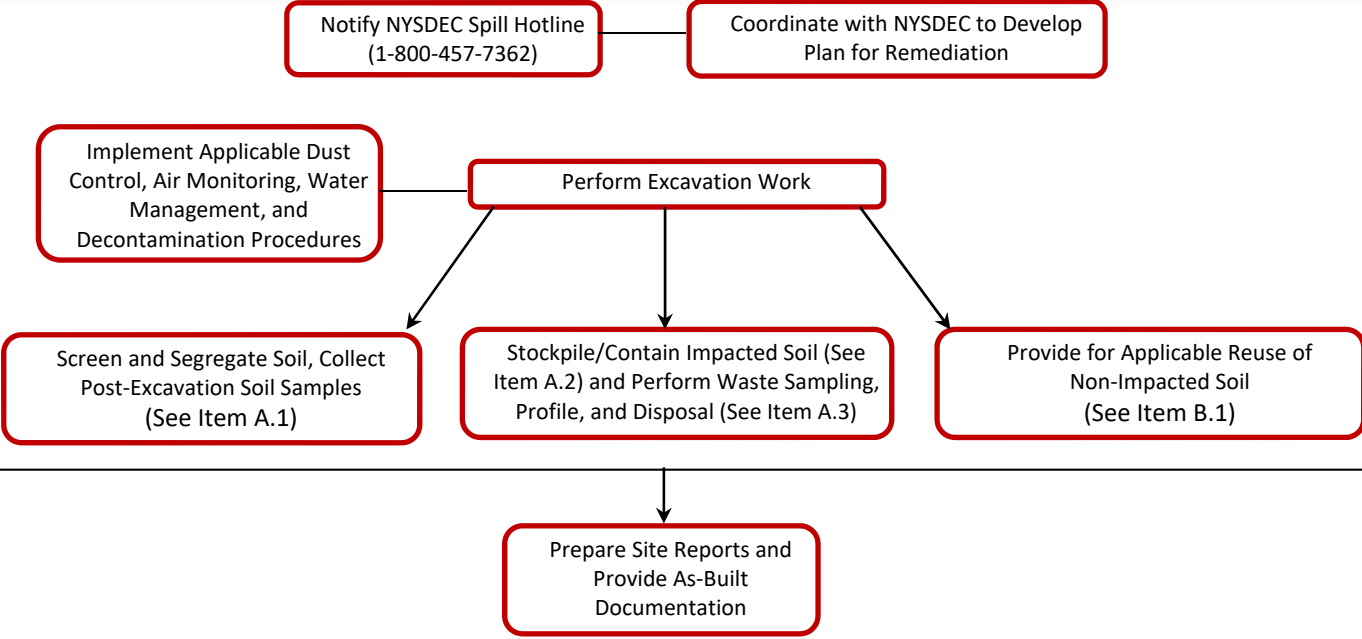
Soil Excavation/Ground Disturbance Activities –
Areas without Known/Suspect Impacts from Ash/Debris



1. If ash/debris material is encountered, implement soil management procedures described in Item A.
2. If petroleum/chemical spill or contamination is encountered, implement soil management procedures described in Item C.
3. Reference Items D and E for procedures pertaining to site backfill/soil cover system and assessment for imported fill.

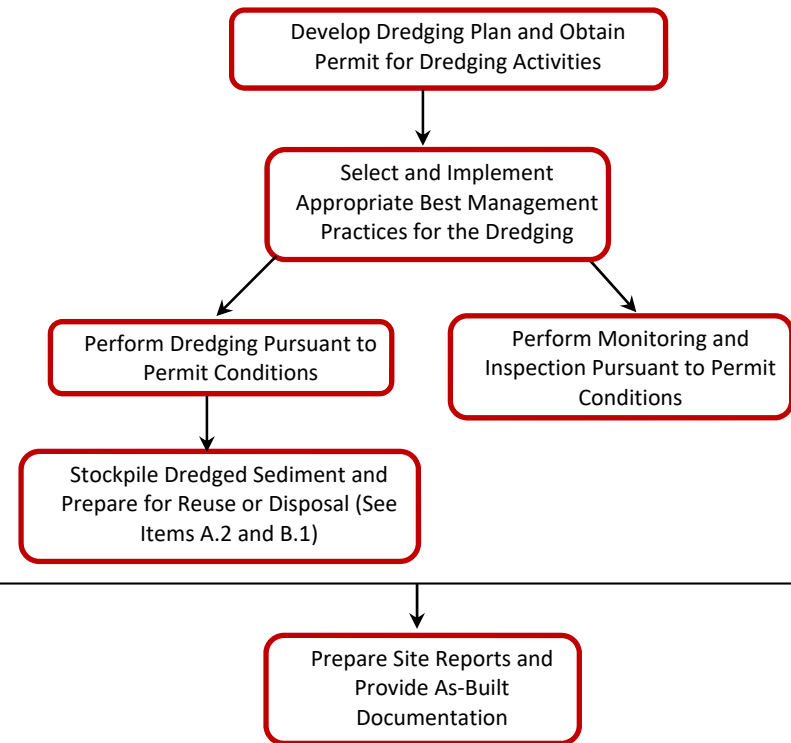
C

Soil Excavation/Ground Disturbance Activities –
Petroleum/Chemical Spill or Contamination Encountered



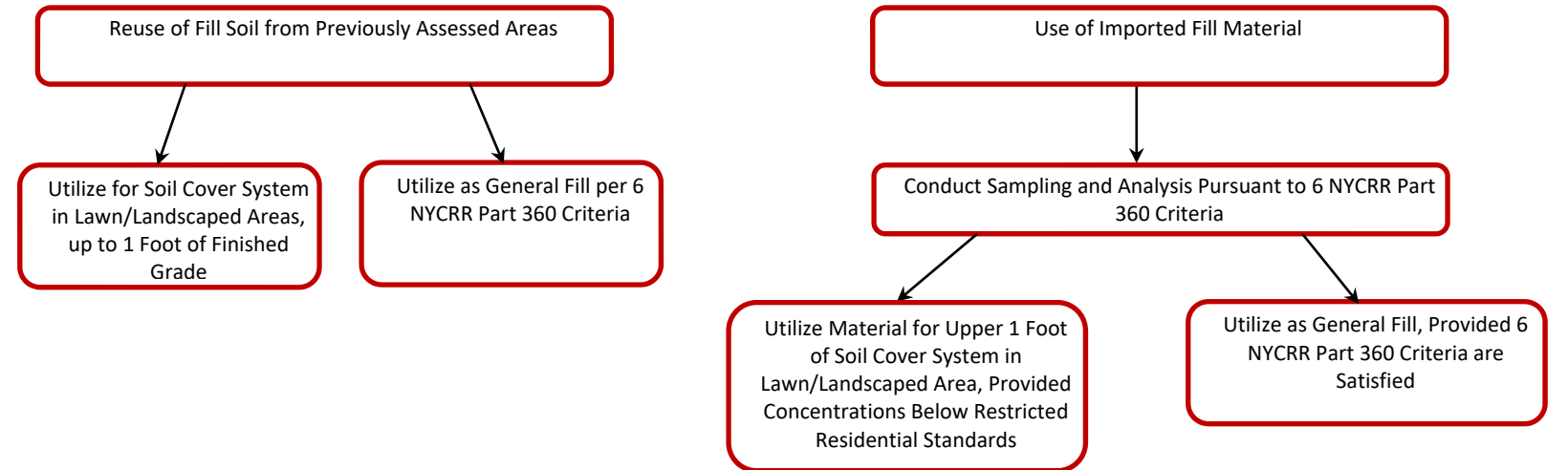
D

Sediment Dredging



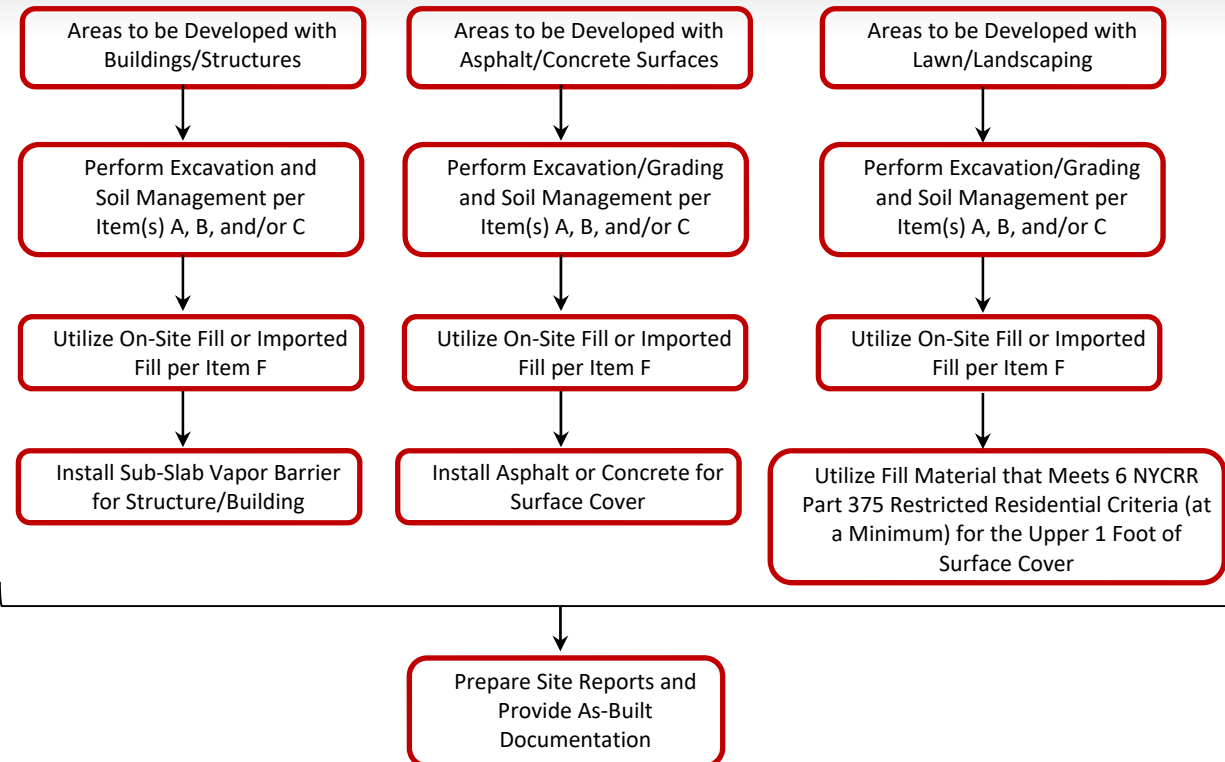
F

Reuse of Previously Assessed On-Site Fill and Assessment and Use of Imported Fill



E

Installation of Soil Cover System/ Ground Surface Cover Conditions



APPENDIX C

Summary of Data from Previous Investigations

Table C-1
Summary of Information from September 2020 Investigation – Probes
(Information Available from Environmental Subsurface Investigation and Soil Sampling Report prepared by ATL and dated October 22, 2020)

Probe ID**	Depth Advanced	Coal Ash/Debris Observations	VOC Field Screening (ppm)	Samples Collected for Analysis of VOC	Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO	Samples Collected for Analysis of Semi-VOC, PCB, Metals, Pesticides, and Cyanide	Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO
B-1	20'	Coal Ash @ 0.5 – 2'	ND				
B-2	20'	Coal Ash @ 0' – 20'	ND				
B-3	20'	Coal Ash @ 0' – 20'	ND				
B-4	20'	Coal Ash @ 0' – 18'	ND				
B-5	20'		ND	Soil @ 0' – 5'		Soil @ 0' – 20' (Composite with B-6 and B-8)	Iron
B-6	20'		ND	Soil @ 10' – 15'		Soil @ 0' – 20' (Composite with B-5 and B-8)	See B-5
B-7	20'	Coal Ash @ 0' – 11'	ND				
B-8	20'		ND	Soil @ 5' – 10'		Soil @ 0' – 20' (Composite with B-5 and B-6)	See B-5
B-9	20'	Coal Ash @ 0.5' – 2.5'	ND – 18.2				
B-10	20'		ND			Soil @ 0' – 20' (Composite with B-11 and B-12)	4,4'-DDD, Arsenic, Iron, Vanadium
B-11	20'	Coal Ash @ 8' – 11.5'	ND	Soil @ 15' – 20'		Soil @ 0' – 20' (Composite with B-10 and B-12)	See B-10

Table C-1 (continued)
Summary of Information from September 2020 Investigation – Probes
(Information Available from Environmental Subsurface Investigation and Soil Sampling Report prepared by ATL and dated October 22, 2020)

Probe ID**	Depth Advanced	Coal Ash/Debris Observations	VOC Field Screening (ppm)	Samples Collected for Analysis of VOC	Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO	Samples Collected for Analysis of Semi-VOC, PCB, Metals, Pesticides, and Cyanide	Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO
B-12	20'		ND	Soil @ 0' – 5'		Soil @ 0' – 20' (Composite with B-10 and B-11)	See B-10
B-13	20'		ND	Soil @ 10' – 15'	Acetone	Soil @ 0' – 20' (Composite with B-15 and B-16)	Iron, Vanadium
B-14	20'		ND				
B-15	20'		ND	Soil @ 5' – 10'		Soil @ 0' – 20' (Composite with B-13 and B-16)	See B-13
B-16	20'		ND	Soil @ 15' – 20'		Soil @ 0' – 20' (Composite with B-13 and B-15)	See B-13
B-17	20'		ND	Soil @ 0' – 5'		Soil @ 0' – 20' (Composite with B-18 and B-19)	Iron, Vanadium
B-18	20'		ND	Soil @ 10' – 15'		Soil @ 0' – 20' (Composite with B-17 and B-19)	See B-17
B-19	20'		ND	Soil @ 5' – 10'		Soil @ 0' – 20' (Composite with B-17 and B-18)	See B-17
B-20	20'	Coal Ash @ 0' – 2'	ND				
B-21	20'		ND	Soil @ 15' – 20'		Soil @ 0' – 20' (Composite with B-22 and B-23)	Iron
B-22	20'		ND	Soil @ 5' – 10'		Soil @ 0' – 20' (Composite with B-21 and B-23)	See B-21
B-23	20'		ND	Soil @ 15' – 20'		Soil @ 0' – 20' (Composite with B-21 and B-22)	See B-21
B-24	20'		ND			Soil @ 0' – 20' (Composite with B-25)	Aluminum, Iron
B-25	20'		ND			Soil @ 0' – 20' (Composite with B-24)	See B-24
B-26	5.1' (Refusal)		ND	Soil @ 0' – 5'		Soil @ 0' – 20' (Composite with B-27)	Iron
B-27	20'		ND			Soil @ 0' – 20' (Composite with B-26)	See B-26
B-28	20'		ND	Soil @ 10' – 15'		Soil @ 0' – 20' (Composite with B-29)	Iron

Table C-1 (continued)
Summary of Information from September 2020 Investigation – Probes
(Information Available from Environmental Subsurface Investigation and Soil Sampling Report prepared by ATL and dated October 22, 2020)

Probe ID**	Depth Advanced	Coal Ash/Debris Observations	VOC Field Screening (ppm)	Samples Collected for Analysis of VOC	Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO	Samples Collected for Analysis of Semi-VOC, PCB, Metals, Pesticides, and Cyanide	Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO
B-29	20'		ND			Soil @ 0' – 20' (Composite with B-28)	See B-28
B-30	10' (Refusal)		ND	Soil @ 5' – 10'		Soil @ 0' – 20' (Composite with B-31)	Iron
B-31	20'		ND	Soil @ 15' – 20'		Soil @ 0' – 20' (Composite with B-30)	See B-30
B-32	20'		ND				
B-33	20'		ND				
B-34	20'		ND				
B-35	20'	Coal Ash @ 0' – 12.5'	ND				
B-36	20'	Coal Ash @ 0.5' – 6'	ND				
B-37	20'	Coal Ash @ 0.5' – 7.5'	ND				
B-38	20'	Coal Ash @ 0' – 11.5'	ND				
B-39	20'	Coal Ash @ 0' – 15'	ND				
B-40	20'	Coal Ash @ 0.5' – 20'	ND				
B-41	20'		ND	Soil @ 5' – 10'		Soil @ 0' – 20' (Composite with B-43)	4,4'-DDE, 4,4'-DDD, Aluminum, Calcium, Iron
B-42	20'	Coal Ash @ 0' – 8'	ND				
B-43	20'		ND	Soil @ 15' – 20'		Soil @ 0' – 20' (Composite with B-41)	See B-41

Table C-1 (continued)
Summary of Information from September 2020 Investigation – Probes
(Information Available from Environmental Subsurface Investigation and Soil Sampling Report prepared by ATL and dated October 22, 2020)

Probe ID**	Depth Advanced	Coal Ash/Debris Observations	VOC Field Screening (ppm)	Samples Collected for Analysis of VOC	Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO	Samples Collected for Analysis of Semi-VOC, PCB, Metals, Pesticides, and Cyanide	Compounds Exceeding 6 NYCRR Part 375 Unrestricted Use SCO
B-44	20'		ND	Soil @ 0' – 5'		Soil @ 0' – 20' (Composite with B-45)	Iron
B-45	20'		ND	Soil @ 10' – 15'	Acetone	Soil @ 0' – 20' (Composite with B-44)	See B-44
** Approximate locations of probes are shown on the <i>Aerial Overview of Affected Locations</i> plan in Appendix D.							

Table C-2
Summary of Information from February 2017 Investigation – Borings/Monitor Wells
(Information Available from Draft Phase II Environmental Site Assessment Report prepared by Bergmann Associates and dated April 6, 2017)

Boring/ Monitor Well ID**	Depth Advanced	Coal Ash/Debris Observations	VOC Field Screening (ppm)	Groundwater Observations	Samples Collected for Metals Analysis	Metals Exceeding 6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives
B-1	100' (environmental assessment to 12')	Coal Ash @ 0' – 12'	0.0	Water @ 12.9'	0" – 2" (Soil)	Arsenic, Barium, Nickel
					10' – 12' (Soil)	Arsenic, Barium
B-2	50' (environmental assessment to 10')	Coal Ash @ 0' – 10'	0.0 – 2.9	Water @ 6'	0" – 2" (Soil)	Arsenic, Barium, Silver
					4' – 6' (Soil)	Arsenic, Barium, Chromium, Selenium, Silver
B-3/ MW- 1	150' (environmental assessment to 16')	Coal Ash @ 0' – 6'	0.0 – 13.7	Water @ 14.9'	0" – 2" (Soil)	Nickel
					2' – 4' (Soil)	Silver
					Groundwater (Screened @ 12' – 22')	Iron, Manganese
B-4/ MW- 3	100' (environmental assessment to 12')	Coal Ash @ 0' – 12'	0.0 – 0.9		0" – 2" (Soil)	Arsenic, Barium, Mercury
					2' – 4' (Soil)	Arsenic, Barium, Mercury
					Groundwater (Screened @ 5' – 15')	Iron, Sodium
B-5/ MW- 2	50' (environmental assessment to 14')		2.9 – 22.9		0" – 2" (Soil)	Arsenic, Barium, Silver
					4' – 6' (Soil)	Arsenic, Selenium, Silver
					Groundwater (Screened @ 11' – 21')	Iron, Manganese
B-6	50' (environmental assessment to 14')	Coal Ash @ 0' – 14'	0.0 – 0.2	Water @ 7.8'	0" – 2" (Soil)	Arsenic, Barium, Chromium, Nickel, Silver
					4' – 6' (Soil)	Arsenic, Barium, Nickel
B-7	50' (environmental assessment to 20')	Coal Ash @ 0' – 18	0.1 – 0.2	Water @ 2.5'	0" – 2" (Soil)	Arsenic, Barium, Nickel, Silver
					1' – 4' (Soil)	Arsenic, Barium, Chromium, Mercury, Nickel
B-8	50' (environmental assessment to 18')	Coal Ash @ 6' – 18'	0.1 – 0.6		0" – 2" (Soil)	
					6' – 8' (Soil)	

** Approximate locations of borings are shown on the *Aerial Overview of Affected Locations* plan in Appendix D.

Table C-3

Summary of Information from February 2017 Investigation – Test Pits

(Information Available from Draft Phase II Environmental Site Assessment Report prepared by Bergmann Associates and dated April 6, 2017)

Test Pit ID**	Depth Advanced	Coal Ash/Debris Observations	VOC Field Screening (ppm)
TP-1	12'		0.0 – 0.1
TP-2	12'		0.0 – 0.1
TP-3	12'		0.0 – 0.2
TP-4	12'		0.1 – 0.2
TP-5	12'		0.0 – 0.1
TP-6	12'		0.0
TP-7	12'		0.0
TP-8	12'	Railroad ties covered in black tar-like substance @ 8' – 12'	0.0 – 10.1
TP-9	10'		0.0
TP-10	12'	Coal Ash @ 0' – 12'	0.1
TP-11	12'	Coal Ash @ 0' – 12'	0.0 – 0.1
TP-12	12'	Coal Ash @ 0' – 12'	0.1
** Approximate locations of test pits are shown on the <i>Aerial Overview of Affected Locations</i> plan in Appendix D.			

APPENDIX D

Aerial Overview of Affected Locations



LEGEND :

- **B-5**
(02/17)
Approximate Location of Previous Boring or Test Pit
with or Debris Ash Material Present (and Month/Year of Investigation)
- **TP-4**
(02/17)
Approximate Location of Previous Boring or Test Pit
without Ash Material Present (and Month/Year of Investigation)

- Approximate Extents of Area Expected to have Ash Material Present
- Approximate Extents of Area with Potential to have Ash Material Present
- Approximate Extents of Area Not Expected to have Ash Material Present

AERIAL OVERVIEW OF AFFECTED LOCATIONS		Drawn By: CJD	Drawing: 1 of 1	Scale: As Noted	Project No.: AT5596	Date : October 2020
Beacon Island Parcel Bethlehem, Albany County, New York		atl WBE Certified Company ATLANTIC TESTING LABORATORIES, Limited Albany, NY Binghamton, NY Canton, NY Elmira, NY Poughkeepsie, NY Plattsburgh, NY Rochester, NY Syracuse, NY Utica, NY Watertown, NY www.AtlanticTesting.com				

APPENDIX E

Sampling and Analysis Schedule for Fill

Sampling Criteria for Fill Material per 6 NYCRR Part 360.13(e)

Soil Quantity (cubic yards)	Number of Discrete Samples	Number of Composite Samples ¹
	Volatile Organic Compounds (VOC)	Semi-VOC, Inorganics, Polychlorinated Biphenyls (PCB), and Pesticides
0 – 300	2	1
300 – 1,000	4	2
1,000 – 10,000	6	3
>10,000	2 for every additional 10,000 cubic yards	1 for every additional 10,000 cubic yards
Notes: ¹ Each composite sample will be comprised of 3 to 5 discrete samples from different locations within the fill material.		

APPENDIX I

SEDIMENT BASIN CALCULATIONS

TEMPORARY SEDIMENT BASIN DESIGN DATA SHEET

Computed by NSO Date 1/20/22 Checked by _____ Date _____
Project Port of Albany Basin # 1/ WQv Pond #2
Location Expansion Site Total Area draining to basin (≤ 50 Ac.) 5.3 Acres

BASIN SIZE DESIGN

- Sediment storage zone volume = 1,000 cu. ft. x number of disturbed acres = 5,300 cu. ft., Top of Zone Elev. _____
- Dewatering zone volume = 3,600 cu. ft. x number of drainage area acres = 19,080 cu. ft., Top of Zone Elev. _____
- Length to width ratio = 3.6:1
- A. Cleanout at 50% of sediment storage zone volume, Elev. _____
B. Distance below top of riser _____ feet
- Minimum surface area is larger of $0.01 Q_{(10)}$ 0.15 or, $0.015 DA$ = 0.08 use 0.15 acres

DESIGN OF SPILLWAYS & ELEVATIONS

Runoff

6. $Q_{p(10)}$ = 14.96 cfs (Attach runoff computation sheets)

Pipe Spillway (Q_{ps})

7. Min. pipe spillway cap., $Q_{ps} = 0.2 \times$ _____ Drainage Area, acres = _____ cfs
Note: If there is no emergency spillway, then required $Q_{ps} = Q_{p(10)}$ = _____ cfs.
8. H, head = _____ ft. Barrel length = _____ ft
9. Barrel: Diam. _____ inches; $Q_{ps} = (Q)$ _____ x (cor.fac.) _____ = _____ cfs.
10. Riser: Diam. _____ inches; Length _____ ft.; h = _____ ft. Crest Elev. _____
11. Trash Rack: Diameter = _____ inches; H, height = _____ inches

*Basin 1 (WQv Pond #2) has adequate storage and surface area to function as a temporary sediment basin. All pipes and structures within basin are to be covered with filter fabric during construction. Sediment cleanout is to take place once final stabilization is reached.

Emergency Spillway Design

12. Emergency Spillway Flow, $Q_{es} = Q_p - Q_{ps} =$ _____ - _____ = _____ cfs.
13. Width _____ ft.; H_p _____ ft. Crest elevation _____; Design High Water Elev. _____
Entrance channel slope _____ % ; Top of Dam Elev. _____
Exit channel slope _____ %

ANTI-SEEP COLLAR/SEEPAGE DIAPHRAGM DESIGN

Collars:

14. $y =$ _____ ft.; $z =$ _____ :1; pipe slope = _____ %, $L_s =$ _____ ft.
Use _____ collars, _____ - _____ inches square; projection = _____ ft.

Diaphragms:

_____ width _____ ft. height _____ ft.

DEWATERING ORIFICE SIZING

(Determined from the Dewatering Device Standard)

15. Dewatering orifice diameter = _____ inches. Skimmer ____ or Riser ____ (check one)
16. Design dewatering time _____ days (Min. 2 days required)

TEMPORARY SEDIMENT BASIN DESIGN DATA SHEET

Computed by NSO Date 1/20/22 Checked by _____ Date _____
Project Port of Albany Basin # 2
Location Expansion Site Total Area draining to basin (≤ 50 Ac.) 15.2 Acres

BASIN SIZE DESIGN

- Sediment storage zone volume = 1,000 cu. ft. x number of disturbed acres = 15,200 cu. ft., Top of Zone Elev. 7.5
- Dewatering zone volume = 3,600 cu. ft. x number of drainage area acres = 54,720 cu. ft., Top of Zone Elev. 11.0
- Length to width ratio = 9.2:1
- A. Cleanout at 50% of sediment storage zone volume, Elev. 6.75'
B. Distance below top of riser 4.25 feet
- Minimum surface area is larger of $0.01 Q_{(10)}$ 0.57 or, $0.015 DA$ = 0.23 use 0.57 acres

DESIGN OF SPILLWAYS & ELEVATIONS

Runoff

6. $Q_{p(10)}$ = 56.95 cfs (Attach runoff computation sheets)

Pipe Spillway (Q_{ps})

7. Min. pipe spillway cap., $Q_{ps} = 0.2 \times$ 15.2 Drainage Area, acres = 3.04 cfs
Note: If there is no emergency spillway, then required $Q_{ps} = Q_{p(10)}$ = - cfs.
8. H, head = 5 ft. Barrel length = 115 ft
9. Barrel: Diam. 12 inches; $Q_{ps} = (Q)$ 4.41 x (cor.fac.) 0.86 = 3.79 cfs.
10. Riser: Diam. 15 inches; Length 4.5 ft.; h = 1 ft. Crest Elev. 11.0
11. Trash Rack: Diameter = 21 inches; H, height = 7 inches

Emergency Spillway Design

12. Emergency Spillway Flow, $Q_{es} = Q_p - Q_{ps} =$ 56.95 - 3.79 = 53.16 cfs.
13. Width 15 ft.; H_p 1 ft Crest elevation 12.0; Design High Water Elev. 13.0
Entrance channel slope 1 % ; Top of Dam Elev. 14.0
Exit channel slope 3 %

ANTI-SEEP COLLAR/SEEPAGE DIAPHRAGM DESIGN

Collars:

14. $y =$ 4.5 ft.; $z =$ 2 :1; pipe slope = 0.5 %, $L_s =$ 27 ft.
Use 2 collars, 4 - 0 inches square; projection = 1.4 ft.

Diaphragms:

_____ width _____ ft. height _____ ft.

DEWATERING ORIFICE SIZING

(Determined from the Dewatering Device Standard)

15. Dewatering orifice diameter = 5 inches. Skimmer X or Riser _____ (check one)
16. Design dewatering time 2 days (Min. 2 days required)

TEMPORARY SEDIMENT BASIN DESIGN DATA SHEET

Computed by NSO Date 1/20/22 Checked by _____ Date _____
Project Port of Albany Basin # 3
Location Expansion Site Total Area draining to basin (≤ 50 Ac.) 33.0 Acres

BASIN SIZE DESIGN

- Sediment storage zone volume = 1,000 cu. ft. x number of disturbed acres = 33,000 cu. ft., Top of Zone Elev. 7.5
- Dewatering zone volume = 3,600 cu. ft. x number of drainage area acres = 118,800 cu. ft., Top of Zone Elev. 11.0
- Length to width ratio = 11.6:1
- A. Cleanout at 50% of sediment storage zone volume, Elev. 6.75
B. Distance below top of riser 4.25 feet
- Minimum surface area is larger of $0.01 Q_{(10)}$ 1.11 or, $0.015 DA$ = .49 use 1.11 acres

DESIGN OF SPILLWAYS & ELEVATIONS

Runoff

6. $Q_{p(10)}$ = 110.93 cfs (Attach runoff computation sheets)

Pipe Spillway (Q_{ps})

7. Min. pipe spillway cap., $Q_{ps} = 0.2 \times$ 33 Drainage Area, acres = 6.6 cfs
Note: If there is no emergency spillway, then required $Q_{ps} = Q_{p(10)}$ = - cfs.
8. H, head = 5 ft. Barrel length = 115 ft
9. Barrel: Diam. 15 inches; $Q_{ps} = (Q)$ 7.78 x (cor.fac.) 0.85 = 6.61 cfs.
10. Riser: Diam. 18 inches; Length 4.5 ft.; h = 1 ft. Crest Elev. 11.0
11. Trash Rack: Diameter = 27 inches; H, height = 8 inches

Emergency Spillway Design

12. Emergency Spillway Flow, $Q_{es} = Q_p - Q_{ps} =$ 110.93 - 6.61 = 104.32 cfs.
13. Width 30 ft.; H_p 1 ft Crest elevation 12.0; Design High Water Elev. 13.0
Entrance channel slope 1 %; Top of Dam Elev. 14.0
Exit channel slope 3 %

ANTI-SEEP COLLAR/SEEPAGE DIAPHRAGM DESIGN

Collars:

14. $y =$ 4.5 ft.; $z =$ 3; 1; pipe slope = 0.5 %, $L_s =$ 31.5 ft.
Use 2 collars, 4 - 3 inches square; projection = 1.6 ft.

Diaphragms:

_____ width _____ ft. height _____ ft.

DEWATERING ORIFICE SIZING

(Determined from the Dewatering Device Standard)

15. Dewatering orifice diameter = 7 inches. Skimmer X or Riser _____ (check one)
16. Design dewatering time 2 days (Min. 2 days required)

18641.00-Construction Activity

Prepared by McFarland Johnson

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Type II 24-hr 10-Year Rainfall=3.63"

Printed 1/25/2022

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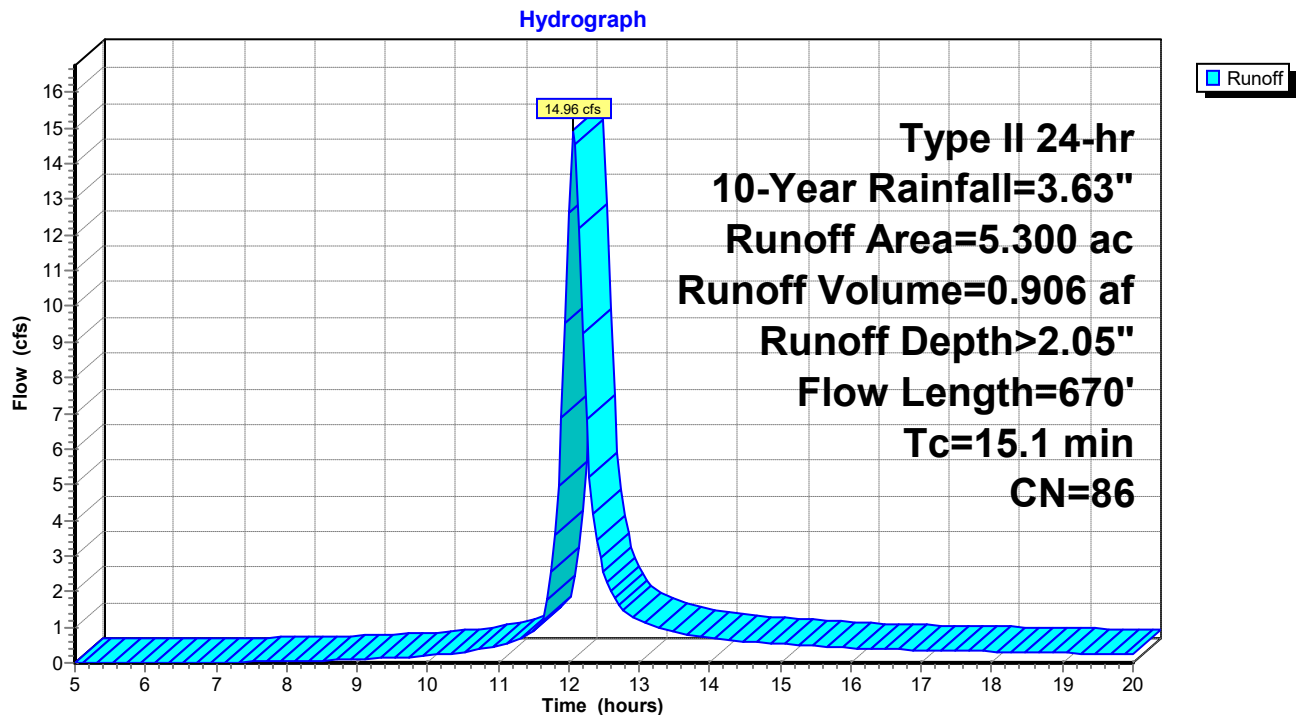
Summary for Subcatchment DA1: (new Subcat)

Runoff = 14.96 cfs @ 12.07 hrs, Volume= 0.906 af, Depth> 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
0.850	96	Gravel surface, HSG D
2.200	80	>75% Grass cover, Good, HSG D
2.250	89	Dirt roads, HSG D
5.300	86	Weighted Average
5.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.5	150	0.0200	0.72		Sheet Flow, n= 0.023 P2= 2.40"
11.6	520	0.0025	0.75		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
15.1	670	Total			

Subcatchment DA1: (new Subcat)

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Type II 24-hr 10-Year Rainfall=3.63"

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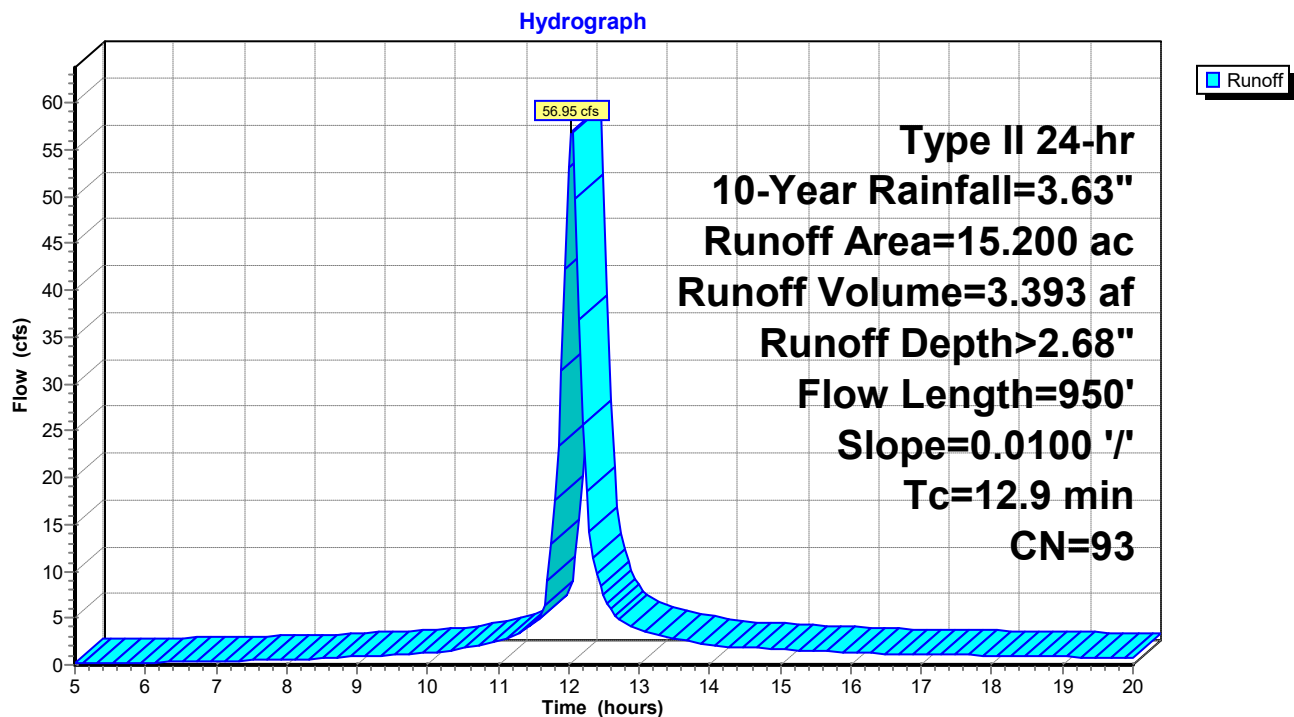
Summary for Subcatchment DA2: (new Subcat)

Runoff = 56.95 cfs @ 12.04 hrs, Volume= 3.393 af, Depth> 2.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 6.900	98	Bldg A
8.300	89	Dirt roads, HSG D
15.200	93	Weighted Average
8.300		54.61% Pervious Area
6.900		45.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	150	0.0100	0.54		Sheet Flow, n= 0.023 P2= 2.40"
8.3	800	0.0100	1.61		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
12.9	950	Total			

Subcatchment DA2: (new Subcat)

18641.00-Construction Activity

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Type II 24-hr 10-Year Rainfall=3.63"

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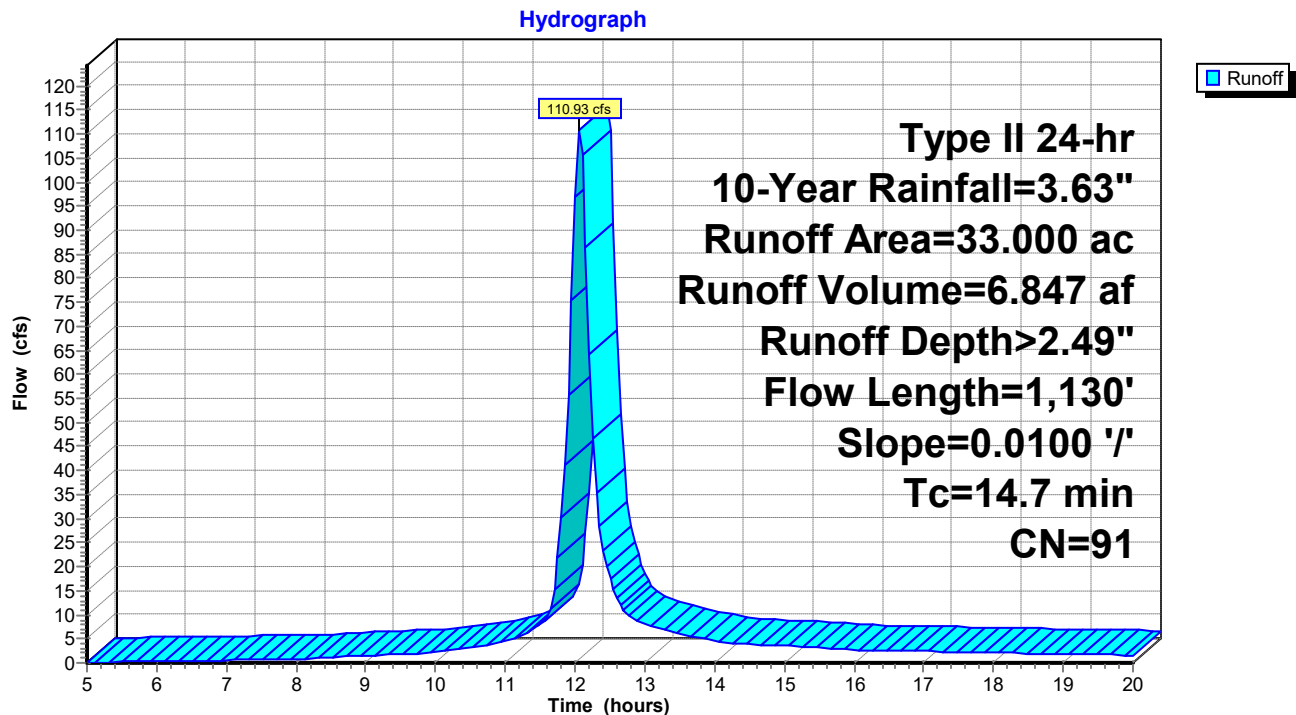
Summary for Subcatchment DA3: (new Subcat)

Runoff = 110.93 cfs @ 12.06 hrs, Volume= 6.847 af, Depth> 2.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.63"

Area (ac)	CN	Description
* 7.000	98	Bldg B C D
26.000	89	Dirt roads, HSG D
33.000	91	Weighted Average
26.000		78.79% Pervious Area
7.000		21.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	150	0.0100	0.54		Sheet Flow, n= 0.023 P2= 2.40"
10.1	980	0.0100	1.61		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
14.7	1,130	Total			

Subcatchment DA3: (new Subcat)

18641.00-Construction Activity

Type II 24-hr 10-Year Rainfall=3.63"

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Summary for Pond 2P: (new Pond)

Volume	Invert	Avail.Storage	Storage Description			
#1	6.00'	71,786 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
6.00	9,449	976.0	0	0	9,449	
7.00	11,415	988.9	10,417	10,417	11,693	
7.50	12,407	995.0	5,954	16,370	12,776	
11.00	19,527	1,039.0	55,416	71,786	20,738	

18641.00-Construction Activity

Type II 24-hr 10-Year Rainfall=3.63"

Prepared by McFarland Johnson

Printed 1/25/2022

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Summary for Pond 3p: (new Pond)

Volume	Invert	Avail.Storage	Storage Description			
#1	6.00'	156,085 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
6.00	21,679	1,328.0	0	0	21,679	
6.50	23,679	1,338.0	11,336	11,336	23,903	
7.00	25,694	1,347.0	12,340	23,676	25,940	
7.50	27,044	1,353.0	13,183	36,859	27,395	
11.00	41,606	1,419.0	119,226	156,085	42,740	

APPENDIX J

DRAFT NOI

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NOI for coverage under Stormwater General Permit for Construction Activity

version 1.35

(Submission #: HPE-0QXG-AE8EZ, version 1)

Details

Originally Started By Natalie Olivieri

Alternate Identifier Marmen-Welcon Tower Manufacturing Plant

Submission ID HPE-0QXG-AE8EZ

Submission Reason New

Status Draft

Active Steps Form Submitted

Form Input

Owner/Operator Information

Owner/Operator Name (Company/Private Owner/Municipality/Agency/Institution, etc.)

Albany Port District Commission

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

Hendrick

Owner/Operator Contact Person First Name

Richard

Owner/Operator Mailing Address

106 Smith Boulevard

City

Albany

State

New York

Zip

12205

Phone

5184638763

Email

rhendrick@portofalbany.us

Federal Tax ID

14-6002520

Project Location

Project/Site Name

Marmen-Welcon Tower Manufacturing Plant

Street Address (Not P.O. Box)

309 River Road

Side of Street

East

City/Town/Village (THAT ISSUES BUILDING PERMIT)

Town of Bethlehem

State

NY

Zip

12077

DEC Region

4

County

ALBANY

Name of Nearest Cross Street

Old River Road

Distance to Nearest Cross Street (Feet)

970

Project In Relation to Cross Street

South

Tax Map Numbers Section-Block-Parcel

98.00-2-10.23

Tax Map Numbers

98.01-2-1.0

1. Coordinates

Provide the Geographic Coordinates for the project site. The two methods are:

- Navigate to the project location on the map (below) and click to place a marker and obtain the XY coordinates.
- The "Find Me" button will provide the lat/long for the person filling out this form. Then pan the map to the correct location and click the map to place a marker and obtain the XY coordinates.

Navigate to your location and click on the map to get the X,Y coordinates

42.602283629058164,-73.76555834600738

Project Details**2. What is the nature of this project?**

New Construction

3. Select the predominant land use for both pre and post development conditions.**Pre-Development Existing Landuse**

Forest

Post-Development Future Land Use

Industrial

3a. If Single Family Subdivision was selected in question 3, enter the number of subdivision lots.

NONE PROVIDED

4. In accordance with the larger common plan of development or sale, enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage) within the disturbed area.

*** ROUND TO THE NEAREST TENTH OF AN ACRE. ***

Total Site Area (acres)

108.6

Total Area to be Disturbed (acres)

72.7

Existing Impervious Area to be Disturbed (acres)

5.2

Future Impervious Area Within Disturbed Area (acres)

65.9

5. Do you plan to disturb more than 5 acres of soil at any one time?

Yes

6. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.

A (%)

3.2

B (%)

0

C (%)

0

D (%)

96.8

7. Is this a phased project?

Yes

8. Enter the planned start and end dates of the disturbance activities.

Start Date

6/1/2022

End Date

9/1/2023

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Hudson River, Normans Kill, Wetland

9a. Type of waterbody identified in question 9?

Wetland/Federal Jurisdiction On Site (Answer 9b)

River On Site

Stream/Creek On Site

Other Waterbody Type Off Site Description

NONE PROVIDED

9b. If "wetland" was selected in 9A, how was the wetland identified?

Delineated by Consultant

10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001?

No

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001?

No

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters?

No

If No, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as D (provided the map unit name is inclusive of slopes greater than 25%), E or F on the USDA Soil Survey?

NONE PROVIDED

If Yes, what is the acreage to be disturbed?

NONE PROVIDED

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?

Yes

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?

No

16. What is the name of the municipality/entity that owns the separate storm sewer system?

NONE PROVIDED

17. Does any runoff from the site enter a sewer classified as a Combined Sewer?

No

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?

No

19. Is this property owned by a state authority, state agency, federal government or local government?

Yes

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.)

No

Required SWPPP Components

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)?

Yes

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)?

Yes

If you answered No in question 22, skip question 23 and the Post-construction Criteria and Post-construction SMP Identification sections.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual?

No

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

Professional Engineer (P.E.)

SWPPP Preparer

Adam Frosino

Contact Name (Last, Space, First)

Frosino, Adam

Mailing Address

60 Railroad Place, Suite 402

City

Saratoga Springs

State

NY

Zip

12866

Phone

5185809380

Email

afrosino@mjinc.com

Download SWPPP Preparer Certification Form

Please take the following steps to prepare and upload your preparer certification form:

- 1) Click on the link below to download a blank certification form
- 2) The certified SWPPP preparer should sign this form
- 3) Scan the signed form
- 4) Upload the scanned document

[Download SWPPP Preparer Certification Form](#)

Please upload the SWPPP Preparer Certification

SWPPP Preparer Cert_Signed.pdf - 05/24/2022 10:45 AM

Comment

NONE PROVIDED

Erosion & Sediment Control Criteria**25. Has a construction sequence schedule for the planned management practices been prepared?**

Yes

26. Select all of the erosion and sediment control practices that will be employed on the project site:**Temporary Structural**

Check Dams
Construction Road Stabilization
Dust Control
Perimeter Dike/Swale
Sediment Basin
Sediment Traps
Silt Fence
Stabilized Construction Entrance
Storm Drain Inlet Protection

Biotechnical

None

Vegetative Measures

Mulching
Seeding
Temporary Swale
Topsoiling

Permanent Structural

Lined Waterway (Rock)
Land Grading
Retaining Wall
Rock Outlet Protection
Streambank Protection

Other

NONE PROVIDED

Post-Construction Criteria

*** IMPORTANT: Completion of Questions 27-39 is not required if response to Question 22 is No.**

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

Preservation of Undisturbed Area

Preservation of Buffers

Reduction of Clearing and Grading

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout). (Acre-feet)
6.29

29. Post-construction SMP Identification

Use the Post-construction SMP Identification section to identify the RR techniques (Area Reduction), RR techniques (Volume Reduction) and Standard SMPs with RRv Capacity that were used to reduce the Total WQv Required (#28).

Identify the SMPs to be used by providing the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use the Post-Construction SMP Identification section to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29. (acre-feet)

1.45

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28)?

No

If Yes, go to question 36. If No, go to question 32.

32. Provide the Minimum RRv required based on HSG. [Minimum RRv Required = (P) (0.95) (Ai) / 12, Ai=(s) (Aic)] (acre-feet)

1.32

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?

Yes

If Yes, go to question 33.

Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.

If No, sizing criteria has not been met; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. SMPs

Use the Post-construction SMP Identification section to identify the Standard SMPs and, if applicable, the Alternative SMPs to be used to treat the remaining total WQv (=Total WQv Required in #28 - Total RRv Provided in #30).

Also, provide the total impervious area that contributes runoff to each practice selected.

NOTE: Use the Post-construction SMP Identification section to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question #29. (acre-feet)

4.85

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRV provided (#30) and the WQv provided (#33a).

6.31

35. Is the sum of the RRV provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)?

Yes

If Yes, go to question 36.

If No, sizing criteria has not been met; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv required and provided or select waiver (#36a), if applicable.

CPv Required (acre-feet)

0.93

CPv Provided (acre-feet)

1.17

36a. The need to provide channel protection has been waived because:

NONE PROVIDED

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (#37a), if applicable.

Overbank Flood Control Criteria (Qp)

Pre-Development (CFS)

73.24

Post-Development (CFS)

12.46

Total Extreme Flood Control Criteria (Qf)

Pre-Development (CFS)

163.60

Post-Development (CFS)

30.97

37a. The need to meet the Qp and Qf criteria has been waived because:

NONE PROVIDED

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?

Yes

If Yes, Identify the entity responsible for the long term Operation and Maintenance

Albany Port District Commission

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). (See question #32a) This space can also be used for other pertinent project information.

The proposed Facility requires 85 acres of usable manufacturing and storage space along the Hudson River. This site was chosen given it is located adjacent to the existing Port of Albany and is directly on the Hudson River. However, the usable portion of the site adjacent to the Hudson River, is only 66-acre area. Therefore, the entirety of the site is needed for the OSW manufacturing process, with an ancillary receiving site located at 700 Smith Boulevard.

Responses to questions 36 and 37 are related only to Analysis Point #1A. Analysis Points #1, #2, and #3 have direct discharge to tidal waters and therefore are waived from meeting the CPv, Qp, and Qf requirements.

Post-Construction SMP Identification

Runoff Reduction (RR) Techniques, Standard Stormwater Management Practices (SMPs) and Alternative SMPs

Identify the Post-construction SMPs to be used by providing the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

RR Techniques (Area Reduction)

Round to the nearest tenth

Total Contributing Acres for Conservation of Natural Area (RR-1)

4.0

Total Contributing Impervious Acres for Conservation of Natural Area (RR-1)

0

Total Contributing Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)

NONE PROVIDED

Total Contributing Impervious Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)

NONE PROVIDED

Total Contributing Acres for Tree Planting/Tree Pit (RR-3)

NONE PROVIDED

Total Contributing Impervious Acres for Tree Planting/Tree Pit (RR-3)

NONE PROVIDED

Total Contributing Acres for Disconnection of Rooftop Runoff (RR-4)

NONE PROVIDED

RR Techniques (Volume Reduction)

Total Contributing Impervious Acres for Disconnection of Rooftop Runoff (RR-4)

NONE PROVIDED

Total Contributing Impervious Acres for Vegetated Swale (RR-5)

NONE PROVIDED

Total Contributing Impervious Acres for Rain Garden (RR-6)

NONE PROVIDED

Total Contributing Impervious Acres for Stormwater Planter (RR-7)

NONE PROVIDED

Total Contributing Impervious Acres for Rain Barrel/Cistern (RR-8)

NONE PROVIDED

Total Contributing Impervious Acres for Porous Pavement (RR-9)

NONE PROVIDED

Total Contributing Impervious Acres for Green Roof (RR-10)

NONE PROVIDED

Standard SMPs with RRV Capacity

Total Contributing Impervious Acres for Infiltration Trench (I-1)

NONE PROVIDED

Total Contributing Impervious Acres for Infiltration Basin (I-2)

1

Total Contributing Impervious Acres for Dry Well (I-3)

NONE PROVIDED

Total Contributing Impervious Acres for Underground Infiltration System (I-4)
23.7

Total Contributing Impervious Acres for Bioretention (F-5)
NONE PROVIDED

Total Contributing Impervious Acres for Dry Swale (O-1)
0.05

Standard SMPs

Total Contributing Impervious Acres for Micropool Extended Detention (P-1)
5.1

Total Contributing Impervious Acres for Wet Pond (P-2)
NONE PROVIDED

Total Contributing Impervious Acres for Wet Extended Detention (P-3)
NONE PROVIDED

Total Contributing Impervious Acres for Multiple Pond System (P-4)
NONE PROVIDED

Total Contributing Impervious Acres for Pocket Pond (P-5)
NONE PROVIDED

Total Contributing Impervious Acres for Surface Sand Filter (F-1)
NONE PROVIDED

Total Contributing Impervious Acres for Underground Sand Filter (F-2)
NONE PROVIDED

Total Contributing Impervious Acres for Perimeter Sand Filter (F-3)
NONE PROVIDED

Total Contributing Impervious Acres for Organic Filter (F-4)
NONE PROVIDED

Total Contributing Impervious Acres for Shallow Wetland (W-1)
NONE PROVIDED

Total Contributing Impervious Acres for Extended Detention Wetland (W-2)
NONE PROVIDED

Total Contributing Impervious Acres for Pond/Wetland System (W-3)
NONE PROVIDED

Total Contributing Impervious Acres for Pocket Wetland (W-4)
NONE PROVIDED

Total Contributing Impervious Acres for Wet Swale (O-2)
NONE PROVIDED

Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Total Contributing Impervious Area for Hydrodynamic
NONE PROVIDED

Total Contributing Impervious Area for Wet Vault
NONE PROVIDED

Total Contributing Impervious Area for Media Filter
NONE PROVIDED

"Other" Alternative SMP?

Contech Jellyfish Filter

Total Contributing Impervious Area for "Other"

54.7

Provide the name and manufacturer of the alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

Manufacturer of Alternative SMP

Contech

Name of Alternative SMP

Jellyfish Filter

Other Permits**40. Identify other DEC permits, existing and new, that are required for this project/facility.**

Endangered or Threatened Species (Incidental Take Permit)

If SPDES Multi-Sector GP, then give permit ID

NONE PROVIDED

If Other, then identify

Wetland Joint Permit, Air State Facility Permit

41. Does this project require a US Army Corps of Engineers Wetland Permit?

Yes

If "Yes," then indicate Size of Impact, in acres, to the nearest tenth

0.9

42. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned.

NONE PROVIDED

MS4 SWPPP Acceptance**43. Is this project subject to the requirements of a regulated, traditional land use control MS4?**

Yes - Please attach the MS4 Acceptance form below

If No, skip question 44

44. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?

NONE PROVIDED

MS4 SWPPP Acceptance Form Download

Download form from the link below. Complete, sign, and upload.

[MS4 SWPPP Acceptance Form](#)

MS4 Acceptance Form Upload

NONE PROVIDED

Comment

NONE PROVIDED

Owner/Operator Certification**Owner/Operator Certification Form Download**

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
[Owner/Operator Certification Form \(PDF, 45KB\)](#)

Upload Owner/Operator Certification Form

POA - eNOI Owner Cert_Signed.pdf - 05/24/2022 11:52 AM

Comment

NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
5/24/2022 11:52 AM	POA - eNOI Owner Cert_Signed.pdf	Attachment	Natalie Olivieri
5/24/2022 10:45 AM	SWPPP Preparer Cert_Signed.pdf	Attachment	Natalie Olivieri

Status History

	User	Processing Status
12/16/2021 1:10:48 PM	Natalie Olivieri	Draft

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted		
Under Review	DAVID GASPER	
Under Review	Daniel von Schilgen	

APPENDIX K

UNIFORM PROCEDURES ACT EXCEPTION LETTER

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits

625 Broadway, 4th Floor, Albany, New York 12233-1750

P: (518) 402-9167 | F: (518) 402-9168 | deppermitting@dec.ny.gov

www.dec.ny.gov

March 30, 2022

VIA EMAIL

Richard Hendrick
Albany Port District Commission
106 Smith Boulevard
Albany, NY 12202
rhendrick@portofalbany.us

RE: SPDES GP-0-20-001 - Commencement of Limited Construction Activities
Port of Albany Expansion Project
Beacon Island Parcel, Bethlehem NY, Albany County
DEC # 4-0122-00322/00002

Dear Mr. Hendrick:

By letter dated March 25, 2022, Albany Port District Commission (APDC) requested to commence limited construction activities (i.e., tree clearing), and authorization to discharge pursuant to the Stormwater State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activity (GP-0-20-001), for the Port of Albany Expansion Project (Project) prior to obtaining all necessary permits from New York State Department of Environmental Conservation (NYSDEC or Department). APDC has not obtained an Air State Facility (ASF) permit, individual SPDES permit, Part 182 permit, Protection of Waters permits and Water Quality Certification (WQC) ("Uniform Procedures Act (UPA) Permits").¹ APDC asserts in its request that good cause exists based on its committed construction schedule and specific requirements for site preparation, construction, and operational components. Pursuant to 6 NYCRR 621.3(a)(4), based on permitting considerations and the specific circumstances presented here, NYSDEC reviewed the March 25, 2022 request from APDC and determined that there is good cause to allow the commencement of limited construction activities² as further described herein, without all UPA Permits having been obtained.

¹According to Part II(C)(1) of GP-0-20-001, an owner or operator shall not commence any construction activity in any location until the authorization to discharge under the General Permit goes into effect. Additionally, under Part II(C)(2)(b) of GP-0-20-001, authorization to discharge under the permit will be effective, among other requirements, when the owner or operator has obtained, "all necessary Department permits subject to the Uniform Procedures Act ("UPA") (see 6 NYCRR Part 621), or the equivalent from another New York State agency" unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4).

² Construction [Activities] are defined in GP-0-20-001 as, "any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility."

Demonstration of Good Cause

In evaluating whether there is good cause for NYSDEC to grant an exception to the authorization criterion contained in Part II(C)(2)(b) of SPDES GP-0-20-0001, and allow authorization to discharge and the commencement of limited construction activities prior to obtaining all other necessary UPA permits, NYSDEC has considered the following factors:

- Pursuant to UPA regulations, Section 621.3(a)(4), APDC has submitted all applications for UPA Permits for the Project.
- The requirements of the State Environmental Quality Review Act (SEQR - Article 8 of the ECL) have been satisfied,³ as follows: (i) The Town of Bethlehem Planning Board was established as SEQR Lead Agency (Lead Agency) and a positive declaration was issued requiring a Draft Generic Environmental Impact Statement (GEIS) for the Project; (ii) a Final GEIS was accepted as complete and a SEQR Findings Statement was adopted by the Lead Agency on June 2, 2020 for the Project; (iii) the Lead Agency determined the Project may have potential to create one or more significant adverse environmental impacts not evaluated within the Final GEIS and issued a Positive Declaration requiring a Supplemental Draft EIS on July 6, 2021; and (iv) a Supplemental Final EIS was accepted as complete and a SEQR Findings Statement was adopted by the Lead Agency on March 15, 2022 for the Project.
- The requirements of the State Historic Preservation Act (SHPA),⁴ have been complied with for the Project, as follows:
 - The Stockbridge Munsee Community issued their opinion in a March 2, 2022 letter that the Project will have No Adverse Effect on Historic Resources.
 - The New York State Historic Preservation Office (SHPO) issued a letter on March 25, 2022, stating that that no historic properties, including archaeological and/or historic resources, will be Adversely Affected by the Project, provided that a Restrictive Deed Covenant is filed to protect and maintain the vegetated buffer along the Hudson River shoreline.
- APDC has prepared a Stormwater Pollution Prevention Plan (SWPPP) for tree clearing activities.
- On March 29, 2022, the Town of Bethlehem as a regulated, traditional land use control Municipal Separate Stormwater Sewer Systems (MS4) accepted the SWPPP for tree clearing activities.
- APDC has indicated that to meet its contractual obligations with Equinor to be operational by December 1, 2023, tree clearing must take place by mid-April 2022 to facilitate site preparation, including implementation of a 3-month surcharge program to address poor soils and settlement concerns.
- APDC has indicated that the UPA Permits for the operational components of the Project (ASF and individual SPDES permits) require selection of manufacturing and processing equipment that must follow the Port of Albany procurement process and therefore, not all information is available prior to the construction bid. This information is required for NYSDEC to issue the ASF and individual SPDES permits.

³ See Part II.C(2)(a) of SPDES GP-0-20-001

⁴ See Part I.F(8)(b)(iv) of SPDES GP-0-20-001

Commencement of Limited Construction Activities

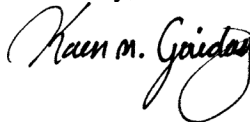
In consideration of the factors identified above, NYSDEC is hereby granting a limited exception to the authorization criterion contained in Part II(C)(2)(b) of SPDES GP-0-20-001. Upon submission of a complete eNOI, APDC would be authorized to commence limited construction activities, (i.e., tree clearing), under SPDES GP-0-20-001 and pursuant to the SWPPP approved by the Town of Bethlehem on March 29, 2022, subject to the following limitations:

1. No permanent construction, including building supports and foundations, can commence until the Air State Facility permit is obtained.⁵
2. No construction of the Project's wastewater treatment facility can commence until the individual SPDES permit is issued and plan approval for the wastewater treatment facility has been obtained from NYSDEC.
3. No excavation, fill, or dredging activities can commence in any wetlands or other waters of the U.S., including the Hudson River, Normans Kill, and federally regulated wetlands, until the following Permits are issued: Part 182, Protection of Waters, and WQC.
4. If tree clearing is conducted within federal wetlands, it must only be done using hand equipment and no stumps shall be removed.
5. No trees shall be removed within the vegetated buffer area, located along the Hudson River, in contravention of the Restrictive Deed Covenant that APDC has agreed to establish.
6. If any bats are observed flying from a tree that will be cut, work activities shall be stopped immediately and NYSDEC shall be contacted for guidance (see #5 in the following link: <https://www.dec.ny.gov/animals/106090.html>).
7. All other applicable terms and conditions of SPDES GP-0-20-001 are satisfied and complied with.

This exception to Part II(C)(2)(b) of SPDES GP-0-20-001 for the limited construction activities (i.e., tree clearing) is only authorized until May 15, 2022, or until NYSDEC issues all UPA Permits, whichever comes first. Please also note that granting of this exception does not guarantee issuance of the individual permits identified above as the permits are still subject to public review and comment, and other applicable provisions of 6 NYCRR Part 621. Further, this exception does not apply to construction activities that would be commenced beyond tree clearing. As a result, APDC assumes all risks in commencing construction.

Please contact me at karen.gaidasz@dec.ny.gov if you have any questions or concerns.

Sincerely,



Karen M. Gaidasz, Chief
Offshore Wind & Hydroelectric Section
Bureau of Energy Project Management

⁵ NYCRR 201-2.1(b)(9), specifically excludes site clearing and excavation activities, it states, "[t]he initiation of physical on-site construction activities which are of a permanent nature excluding site clearing and excavation. Such activities include, but are not limited to, installation of building supports and foundations, laying underground pipework and construction of permanent storage structures."

APPENDIX L

5 ACRE WAIVER REQUEST



May 20, 2022

Paul Penman, P.E.
Town Engineer, Deputy Commissioner of Public Works
Town of Bethlehem
445 Delaware Avenue
Delmar, New York 12054

Re: SPDES General Permit for Storm Water Discharges from Construction Activity –
Marmen-Welcon Tower Manufacturing Plant

Mr. Penman,

We are hereby requesting approval to disturb more than 5 acres of soil at a time for the Marmen-Welcon Tower Manufacturing Plant project.

Activities related to the above construction site will comply with all other requirements under GP-0-20-001. As such, SWPPP inspections will be conducted twice weekly while more than 5 acres of soil are disturbed.

The project has been split into five (5) phases spanning 20 months as shown on the project's Erosion and Sediment Control plans. The maximum soil disturbance at one time is anticipated to be around 12-15 acres as partial disturbance in two phases may occur simultaneously for short durations given the nature of the project. The anticipated soil disturbance areas and durations for each phase are as follows:

SOIL DISTURBANCE PHASING		
PHASE	DISTURBANCE AREA	DURATION
1	8.5 ACRES	2 MONTHS
2	11.3 ACRES	
3	11.0 ACRES MAX	6 MONTHS
3A	9.7 ACRES	
3B	9.6 ACRES	
3C	10.0 ACRES	
3D	10.1 ACRES	
3E	10.0 ACRES	
3F	3.5 ACRES	
4	NO NEW AREAS	4 MONTHS
5	5.1 ACRES	8 MONTHS

Disturbances associated with Phases 1 and 2 are expected to take place concurrently over a 2-month period. During these phases the construction entrance (including rock hammering), staging area, and site access roads will be established, as well as temporary sediment basins #1, #2, and #3. Any additional sediment controls not installed during the site tree cutting are to be installed during this phase.

During Phase 3 the site will be grubbed, and mass site grading will occur in preparation for the stone aggregate surcharging. Approximately 98,000 CY of on-site cut material will be used as fill to balance out the site. In addition, approximately 150,000-200,000 CY of suitable fill will be brought in to bring the site up to the sub-grade elevation.

The large grubbing area as well as the large amount of mass grading required resulted in breaking up Phase 3 into sub-phases of roughly 10 acres each. The sub-phases were determined based on overall project sequencing to start at the south end with Building A preparation, as well as establishing approximate areas where borrowing and fill will occur within each sub-area. Limits of disturbance to be minimized in each sub-phase by stabilizing areas within 2 days of achieving final grade. The sub-phase areas will be disturbed and stabilized in a rolling operation as the earthwork progresses from the south end of the site to the north end with disturbance ranging from 8-11 acres. The disturbance envelope ranges from 700 feet initially to 400 feet as earthwork progresses. To avoid stockpiling, available cut material from one sub-phase area that no longer requires any additional fill may be deposited and stabilized within another sub-phase area; however, the overall total disturbed area during Phase 3 shall not exceed 11.0 acres. Fine earthwork grading and subgrade preparation under the surcharge areas in accordance with the project's geotechnical report will also occur during this phase. In accordance with the SWPPP, all areas which are not active will be temporarily stabilized.

During Phase 4, approximately 700,000 CY of stone aggregate will be imported and stockpiled on the proposed building pads as a temporary building pad surcharge and will be used as the future stone yard area. It is anticipated that the subbase stone will begin to be brought into the site as the building footprint subgrade is completed for each sub-phase of Phase 3. As the stone aggregate is brought onto the site and placed in the surcharge areas it will act as permanent stabilization therefore decreasing the disturbed area. Given the volume of material to be brought into the site, this will take some time and will be completed in a rolling fashion in a similar fashion to Phase 3. The first building's surcharge import (Building A) will be completed to enable the surcharging compaction timeframe to start prior to placing the stone aggregate surcharge on the next building pad. Any peripheral subgrade areas previously disturbed or disturbed as part of the surcharge operations and no longer active will be temporarily stabilized in accordance with the SWPPP.

Phase 5 includes spreading the stone aggregate surcharge material to establish the stone yard area and all remaining construction on the project. Once the proposed drainage system and second pond have been installed and are operational, the temporary sediment basins will be removed as well as the conversion and installation of the permanent stormwater ponds. All

previously disturbed areas that are to remain pervious will need to achieve final stabilization during this phase prior to issuance of the Notice of Termination.

The attached Phasing Plans demonstrates the intended construction sequence for the Marmen-Welcon Tower Manufacturing Plant project.

If you have any questions, or require anything further, please let us know. Thank you.

Sincerely,
McFarland-Johnson, Inc.

A handwritten signature in blue ink, appearing to read 'Adam J. Frosino', is positioned above the printed name.

Adam J. Frosino, PE, PTOE
Project Manager

cc: Robert Leslie, Town of Bethlehem
Richard Hendrick, Port of Albany
Megan Daly, Port of Albany
Steve Boisvert, McFarland-Johnson

APPENDIX M

NATIONAL GRID ENVIRONMENTAL GUIDANCE

 National Grid Environmental Guidance		Doc No.:	EG-501NYN
		Rev. No.:	5
		Page No.:	1 of 2
		Date:	03/05/2020
SUBJECT Release Notifications in New York North		REFERENCE EP-5	

Purpose / Objective: This guidance document provides instructions for reporting a release of oil, chemical, or hazardous material.

Who: All National Grid employees and contractors working on National Grid projects or properties.

What to Do:

Report all releases to the National Grid Regional Control Center (RCC) immediately, regardless of the volume or location.

EASTERN RCC (518) 356-6471

CENTRAL RCC (315) 460-2796

WESTERN RCC (716) 398-5308

Provide the following information to the RCC concerning the release:

- Name and contact information
- Time of discovery
- Location (be specific)
- Material and quantity
- Source (vehicle number, transformer, gas meter, HVAC unit, tank number, etc.)
- Cause (i.e., equipment malfunction, motor vehicle accident, storm, human factor, other)
- Description of impacted area and resources (land, water, air)
- Request cleanup crew

REGIONAL CONTROL CENTER:

1. Upon notification of a release, contact New York State Spill Hotline (1-800-457-7362) within 2 hours (of discovery time).
2. If release is reported at an Environmental SIR Site, contact Environmental immediately (see below).
3. Record release in the Incident Management System (IMS).
4. Contact Divisional Environmental Engineer, as applicable.

Approved for use per EP – 10; Document Control

PRINTED COPIES ARE NOT DOCUMENT CONTROLLED. FOR THE MOST AUTHORIZED VERSION PLEASE REFER TO THE NATIONAL GRID ENVIRONMENTAL INFONET SITE.

 National Grid Environmental Guidance		Doc No.:	EG-501NYN
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SUBJECT Release Notifications in New York North		REFERENCE EP-5	

ENVIRONMENTAL MANAGEMENT:

1. Communicate with RCC and/or field crews regarding additional reporting requirements (e.g., releases to water and PCB releases require reporting to the National Response Center (1-800-424-8802).
2. In IMS categorize the release as Category 1 or Category 2 (EG-1502) and classify/complete/close out the incident.
3. Confirm clean up, provide additional information to state agency to close out the release as requested.

RELEASE REPORTING ON NEW YORK SIR MGP SITES

Environmental Site Investigation and Remediation has entered into Consent Orders with the New York State Department of Environmental Conservation (NYSDEC) to evaluate and, where necessary, remediate former manufactured gas plant (MGP) sites. These sites are managed by a National Grid project manager (PM). As agreed to with NYSDEC, in the event of an accidental release or spill of material at an MGP site which will require subsurface excavation work for cleanup:

- Report release using procedures above.
- The National Grid PM must be notified as soon as possible to coordinate work.
- The National Grid PM would document the release in IMS.

HELP: Contact the local Environmental Representative if you have questions.

EASTERN:	Matt Root	518-227-7508
CENTRAL:	Rich Fox	315-546-4011
WESTERN:	Lisa Montesano	716-479-5339

 National Grid Environmental Guidance		Doc No.:	EG-502NYN
		Rev. No.:	0
		Page No.	1 of 3
		Date:	03/06/2020
SUBJECT Release Clean Up in New York North		REFERENCE EP-5; Release Response	

Purpose / Objective:

The purpose of this guidance document is to provide instructions in the clean-up of oil and other chemical releases.

Who:

This guidance applies to New York North National Grid personnel who may be assigned to respond and/or clean up a release.

What To Do:

Immediate Actions:

- Secure the area
- Attempt to contain release. Utilize release kit contained on most company vehicles.
- Use absorbent/containment materials to minimize or eliminate the spread of contamination.
- Do not walk through or touch the released material; step away from the release area.
- Using physical barriers, visible warnings (i.e., caution tape, cones, etc.), or other means, restrict access to the release area. Prevent unauthorized persons from entering the area.

Note: *Large releases should be cleaned up by qualified Hazardous Materials personnel. If the release is large and/or PCB containing, or has reached a water body, contact Regional Control or the Divisional Environmental Engineer for assistance in obtaining help with the clean-up.*

Clean up Requirements:

Assess the release. Determine material released. If hazardous material such as mercury, acid or PCB oil, contact Regional Control for help in securing Hazardous Materials personnel or release contractor.

Don personnel protective equipment (PPE) as necessary. PPE may include, but not be limited to gloves, hardhats, safety glasses, steel toed shoes, coveralls, etc. If working near roadway, appropriate cones shall be placed, and high visibility clothing shall be worn. Follow all Safety procedures.

Note: *All releases are unique. The clean-up methodology employed will depend upon the nature of the release, the amount released, location, etc. The guidance listed below is meant to be general and not prescriptive.*

Non-PCB oil releases to land:

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Release Clean Up in New York North		EP-5; Release Response	

Non-PCB oil releases include non-PCB labeled transformers, hydraulic oil, diesel fuel and motor oil. Clean up requires removal of visible stained oil from the surface. Soil removal, use of oil sorbent pads, Speedi Dri, and use of a water-based cleaner may all be used for release clean-up.

- Remove all visible traces of oil.
- Document clean-up efforts and provide to divisional environmental engineer.
- Containerize waste in appropriate containers and label.

Note: *NYS DEC guidance and clean up criteria vary between Regions in NYS. Effort shall be made to clean the area to as close as possible to pre-release conditions.*

Unlabeled transformer oil releases to land:

If an unlabeled transformer has released, obtain a sample of the oil from the unit and conduct a field PCB test using a CLOR-N-OIL kit. Collect an additional sample for laboratory analysis. If results reveal ≥ 50 ppm, waste clean-up debris must be handled as PCB contaminated and labeled as such until laboratory results determine otherwise. If CLOR-N-OIL results reveal < 50 ppm, the oil and waste may be handled as non-PCB until laboratory results are received. If no oil is left in the unit or a sample cannot be obtained, collect oily soil or debris and send to laboratory for analysis.

- Clean up release as noted above.
- Collect additional soil sample or wipe samples to verify clean up.
- Containerize waste and label appropriately.
- Document clean up and provide to divisional environmental engineer.
- Clean up should be completed within 48 hours. Otherwise, fully document reason for the delay.
- Clean up all reusable equipment using rags and/or cleaners as necessary.
- If PCB results confirm that the oil release was PCB contaminated or PCB oil, an EPA Identification Number may be required prior to disposal of material. Contact the Divisional Engineer for assistance.

Divisional Environmental Engineer Contacts

Western	Lisa Montesano	716-479-5339
Central	Rich Fox	315-546-4011
Eastern	Matt Root	518-227-7508

Documentation

Official record of all releases is maintained in the Incident Management System (IMS.)

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Regional Control centers will initiate the IMS report upon notification from the field and document time of incident, notification from field time, regulatory notification time, release details (material released, amount, location, response measures). Regional control follows National Grid Distribution Control Center System Operations Operating Guide 3.7 "Oil Release Reporting."

If the release is of sensitive or serious nature (based on public exposure, environmental impact, or public relations issue) such as those involving bodies of water or public buildings in addition to immediate notification to the divisional engineer, notify and document in the Shift Supervisor log book.

Document remediation efforts including release area and property items/materials impacted amount of clean up necessary. Submit documentation to Divisional Environmental Engineer.

Any contact with members of the public, emergency agencies or regulatory personnel should be documented by the response crew.

Divisional Environmental Engineers shall maintain and complete the release documentation in the IMS system and ensure release is closed out.

HELP:

Contact the local Environmental Representative if you have questions.

**LANDFILL CLOSURE CERTIFICATION REPORT
NYSDEC REGISTRATION NO. 01L12211**

**PORT OF ALBANY EXPANSION PROJECT
BEACON ISLAND PARCEL
BETHLEHEM, ALBANY COUNTY, NEW YORK**



WBE certified company

PREPARED BY:

**ATLANTIC TESTING LABORATORIES, LIMITED
22 Corporate Drive
Clifton Park, New York 12065**

PREPARED FOR:

**Albany Port District Commission
106 Smith Boulevard
Albany, New York 12202**

ATL REPORT NO. AT5596CE-32-10-24

October 21, 2024

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Table 1 - Status of Site Preparation Work

FIGURES

Figure 1 - Site Location Map

Figure 2 - Aerial View of Existing Site Conditions (Photograph Dated October 15, 2024)

Figure 3 - Aerial Extent of Landfill Material - Pre-Construction

Figure 4 - Landfill Reclamation As-Built Plan

Figure 5 - Landfill Reclamation Site Cap (Gravel Thickness)

Appendices

Appendix A - 6 NYCRR Part 360 Registration

Appendix B - Inactive Solid Waste Management Facility or Activity Notification Form

Appendix C - Site Inspection Forms

1.0 INTRODUCTION

Atlantic Testing Laboratories, Limited (ATL) was retained on behalf of the Albany Port District Commission to prepare a Landfill Closure Certification Report for the Beacon Island site that is impacted with coal ash material and related debris. Recent site redevelopment included landfill reclamation activities, subject to registration through the New York State Department of Environmental Conservation (NYSDEC) pursuant to 6 NYCRR Part 360-15. The site redevelopment was completed between April 2022 and October 2024. Activities related to landfill reclamation work were commenced after submission of a Landfill Reclamation Work Plan in October 2022.

2.0 SITE DESCRIPTION

2.1 Site Location

The subject site is the Beacon Island parcel located to the east of River Road (County Route 144) and along the west side of the Hudson River, in the Town of Bethlehem, Albany County, New York. The subject site is intersected by 42° 36' 11" north latitude and 73° 45' 57" west longitude. The Beacon Island parcel is comprised of approximately 80 acres, and has been redeveloped as part of an expansion for the Port of Albany.

Properties directly north of the subject site include manufacturing and processing facilities and warehouse/distribution facilities, primarily associated with the Port of Albany. Properties directly to the south include an electric power generation facility. An electric transmission line corridor is located adjacent to the west of the subject property, followed by commercial and residential properties located along River Road. The Hudson River is immediately east of the subject site. Properties in the immediate vicinity of the subject site are zoned as industrial. Residential, rural, and commercial zoned properties exist further out.

A Site Location Map, showing the location of the subject site, is attached as **Figure 1**. An Aerial View of Existing Site Conditions (Photograph Dated October 15, 2024) is provided as **Figure 2**.

2.2 Solid Waste Management Facility Registration

The Beacon Island site in Bethlehem, New York, has a current 6 NYCRR Part 360 registration under NYSDEC Registration No. 01L12211. This registration has an effective date of October 28, 2022 and expiration date of October 27, 2027. A copy of the registration is included as **Appendix A**.

3.0 LANDFILL AND CONSTRUCTION OPERATIONS

3.1 Pre-Construction Conditions

Available historical information and data from previous site investigations indicate that fill and ash materials have been placed at varying depths in areas of the subject site. Furthermore, available information indicates that placement of ash contaminated wastes ceased some time previous to 1970. Prior to landfill reclamation activities at the site, subsurface investigations were performed to assess the extents of the ash materials. **Figure 3**, Aerial Extent of Landfill Material - Pre-Construction, shows the approximate extents where ash materials were encountered prior to site redevelopment by the Port of Albany.

3.2 Landfill Reclamation Work Plan

A Landfill Reclamation Work Plan (LRWP) was prepared for the facility, to address criteria described in 6 NYCRR Part 363-11.4 for landfill reclamation activities. The LRWP included a summary of site investigations for identifying the approximate extents of landfill material and evaluating soil quality, groundwater, and soil vapor characteristics, along with feasibility study and planned reclamation work activities. The LRWP was prepared by ATL on behalf of the Port of Albany, and is referenced as ATL Report No. AT5596CE-06-10-22, dated October 20, 2022.

The primary reclamation work plan components included the following:

- Site preparation
- Disturbance of landfill materials
- Site cap
- Soil Management Plan (earthwork, staging procedures, imported fill, dust control, community air monitoring plan (CAMP), work zone air monitoring)
- Decommissioning of monitoring wells
- Stormwater and leachate management
- Closure certification report

A modification to the LRWP was submitted in December 2022 (reference ATL Report No. AT5596CE-06-10-22, dated December 1, 2022) to describe areas requiring excavation that were not described in the original work plan. This modification was provided for clarification of planned work activities, with additional portions and quantities of the coal ash materials to be relocated.

Subsequent to submitting the LRWP, NYSDEC requested a Groundwater Monitoring Plan to specify installation of multiple groundwater wells along the banks of the Hudson River. These would be used to monitor potential contaminant migration resulting from construction activities over the coal ash landfill. The Groundwater Monitoring Plan was prepared by ATL on behalf of Port of Albany (reference ATL Report No. AT5596CE-08-11-22 Revision 1, dated December 2, 2022).

Sections 3.3 through 3.9 provide further description of work that has been completed relative to the primary LRWP components.

3.3 Site Preparation

Site preparation activities during construction and redevelopment at the Beacon Island site were pertinent to ensuring the site would be suitable for installation and maintenance of a site cap over the coal ash materials. **Table 1 – Status of Site Preparation Work** provides a summary of site preparation items described in the LRWP, and status of performance during construction and long-term. As indicated in **Table 1**, site preparation items were completed pursuant to conditions described in the LRWP, with some items having continued applicability through long-term operations at the site.

3.4 Disturbance of Landfill Materials

As indicated in the LRWP and subsequent modification, disturbance of landfill materials would include removal of a portion of the coal ash from approximately 6.83 acres of the

site and relocation of this material to areas covering approximately 8.92 acres of the site. The estimated volume of coal ash to be relocated was 21,900 cubic yards. Disturbance of landfill materials were limited to the prescribed areas, with no other areas requiring excavation of coal ash for relocation.

Petroleum-contaminated soil was encountered at 2 locations during construction and affected materials were excavated and transported off-site for disposal at a permitted facility. One area of concern included petroleum-impacted soil discovered at the location of a monitoring well (MW-3) that was installed at the subject site in December 2022. The spill was reported under NYSDEC Spill No. 2206029, and the completed excavation for affected soil material measured approximately 25 feet in radius, with depth ranging from 4 to 8 feet. Post-excavation soil samples were collected for analysis of volatile organic compounds (VOC) and semi-VOC. A summary of the sampling and analysis results is provided in a Post-Excavation Soil Sampling and Analysis Report prepared by ATL (reference ATL Report No. AT5752CE-01-04-23, dated April 11, 2023).

The second area of concern with petroleum-contaminated soil was discovered at locations of subsurface investigation borings completed on October 4 and 5, 2022. This area was reported under NYSDEC Spill No. 2208519, and the completed excavation for affected soil material measured approximately 100 feet by 175 feet, with depths ranging between 2 to 8 feet. Post-excavation soil samples were collected for analysis of VOC and semi-VOC. A summary of the sampling and analysis results is provided in a Post-Excavation Soil Sampling and Analysis Report prepared by ATL (reference ATL Report No. AT5752CE-02-04-23 Revision 1, dated June 29, 2023).

Excavation work for the relocation of ash materials and removal of petroleum-contaminated soil for disposal was performed pursuant to conditions of the Soil Management Plan for the site (reference Section 3.6).

3.5 Site Cap

The LRWP described conditions for installation of a site cap over areas of the site where coal ash would remain and where portions of coal ash would be relocated to. The following criteria were established for the site cap.

- A minimum of 2 feet of soil cover will be placed above the ash material.
- The upper 6 inches of the soil cover will be suitable to sustain growth of appropriate vegetation at the ground surface in areas that will not be covered with impervious surfaces.
- Certain areas of the subject site will have buildings, pavement, and concrete pads that will serve as an additional layer of site cap.
- The upper 2 feet of the soil cover will not have concentrations of contaminants that exceed the Restricted Residential Soil Cleanup Objectives (SCO) set forth in 6 NYCRR Part 375-6.
- Imported fill that is placed at a depth below the upper 2 feet of soil cover will not have concentrations of contaminants that exceed the Commercial SCO set forth in 6 NYCRR Part 375-6.
- A demarcation layer will be provided between the soil cover layer and underlying impacted soil. Subsequent to site grading, and prior to placement of imported material for the site cap, a filter fabric will be placed to provide separation of these layers and will serve as the demarcation layer.

- In the event that the soil cover system is breached, penetrated, or temporarily removed, restoration to original conditions (or equivalent) will be performed.
- Areas with a soil cover will be inspected at least annually, to assess existing conditions and determine if any restoration or repairs are necessary. Inspections will also be performed after severe weather events or significant site operations that may have adversely affected the soil cover system.

The site cap has been installed during the course of construction, with fill material placed over areas containing the coal ash material and a demarcation layer (filter fabric) placed between the graded pre-existing materials and the imported fill. Section 4.2 provides additional details pertaining to as-built conditions for the site cap.

3.6 Soil Management Plan

A Soil Management Plan was prepared for the site to address areas that are impacted with ash material and related debris, in addition to describing methods to be used for the handling and management of areas impacted by petroleum/chemical spills, if encountered. The Soil Management Plan (reference ATL Report No. AT5596CE-05-10-20 Revision 2, dated October 20, 2022) was incorporated into the LRWP, with pertinent components including earthwork, staging procedures, importation of fill, dust control, community air monitoring, and work zone air monitoring. The Soil Management Plan was referenced during construction and site redevelopment work, and shall continue to be applicable for future site management and long-term maintenance and monitoring.

3.7 Decommissioning of Monitoring Wells

Prior to development of the LRWP, there were 6 pre-existing monitoring wells on the subject site. The planned redevelopment and site construction were not conducive to maintaining these monitoring wells in a stable condition for future use. As such, the pre-existing monitoring wells were decommissioned during the site redevelopment work. New monitoring wells were installed along the banks of the Hudson River to facilitate groundwater sampling and analysis prior to, during, and after construction. Reference Section 3.9 for additional details pertaining to the groundwater monitoring.

3.8 Stormwater and Leachate Management

Construction at the site included installation of closed drainage networks with ultimate discharge into the Normans Kill or Hudson River. These drainage networks were constructed as described on the project plans, SWPPP, and LRWP, and will serve to collect site stormwater and transfer away from areas with the site cap.

3.9 Groundwater Monitoring

Groundwater monitoring has been performed as part of the site construction and redevelopment. The Groundwater Monitoring Well Plan (reference ATL Report No. AT5596CE-08-11-22 Revision 1, dated December 2, 2022) specified the installation of 5 monitoring wells along the side of the site adjacent to the Hudson River. Groundwater sampling events were initiated in December 2022, prior to commencement of construction activities, and have been performed on a monthly basis through the construction work. Post-construction events are planned at a frequency of every 6 months until NYSDEC allows for discontinuation.

4.0 LANDFILL CLOSURE

4.1 Closure Methods

Closure methods were completed in general conformance with the LRWP, as described in Section 3 of this report, and were performed during the Beacon Island site construction and redevelopment project. Construction inspection and observation records, testing reports, material and product data, and other documents pertaining to the project are maintained by the Port of Albany and can be made available upon request.

4.2 As-Built Conditions

Figure 4 – Landfill Reclamation As-Built Plan provides an overview of existing site conditions, based on construction work completed for the landfill reclamation activity. **Figure 5** – Landfill Reclamation Site Cap (Gravel Thickness) shows details pertaining to the gravel thickness for the constructed site cap system. The as-built conditions generally correspond with the conditions described in the LRWP.

4.3 Inactive Facility Notification and Annual Report

6 NYCRR Part 360.21 includes conditions for providing notification to NYSDEC of closure activities, and submitting an annual report. Operations at the registered facility were limited to the landfill reclamation activities performed during construction, which pertained only to existing coal ash materials on the site. No additional wastes were received at the facility.

Appendix B includes an Inactive Solid Waste Management Facility or Activity Notification Form to serve as notification of closure and certification that the facility is no longer operational. Furthermore, pursuant to conditions stated on the form, the owner/operator relinquishes their NYSDEC registration and retains no other permit, registrations, or licenses related to the landfill reclamation activity.

It is noted that an annual report template for landfill reclamation activities is not available under Solid Waste Facilities Forms on the NYSDEC website. It is also noted that the intent of an Annual Report is to identify the quantities of materials received or processed at a solid waste management facility. In consideration of no available annual report form for landfill reclamation and the subject facility not receiving any wastes, it is not anticipated that an annual report is necessary for facility closure. If an annual report is needed or required, and an applicable annual report form is provided to the Albany Port District Commission by NYSDEC, such report can be prepared and submitted.

5.0 POST-CLOSURE OPERATIONS

5.1 Site Access/Site Security

Fencing and gates will be maintained around the perimeter of the subject site, and will serve to restrict access to authorized personnel. The general public will not have direct access to the site.

5.2 Future Site Work

Pending site work includes construction of 4 buildings, as has been incorporated into the Port of Albany's site redevelopment plans. These remaining construction activities will not include significant disturbance or alteration to the site cap or underlying coal ash materials. No other work impacting the site cap is anticipated for the foreseeable future. In the event that disturbance to the site cap materials is necessary for future site management or maintenance activities, the Soil Management Plan shall be referenced for protocol to be implemented.

5.3 Groundwater Monitoring

The Groundwater Monitoring Plan for the site includes a requirement for monthly groundwater sampling and analysis events during construction and post-construction events at a frequency of every 6 months until NYSDEC allows for discontinuation. The groundwater monitoring will continue at the stated frequencies.

5.4 Long-Term Maintenance and Monitoring

5.4.1 Site Cap Maintenance

The site cap shall be maintained intact to ensure on-site coal ash materials remain covered and there are no direct exposure risks. As specified in the Soil Management Plan for the facility, in the event that the soil cover system is breached, penetrated, or temporarily removed, restoration to original condition (or equivalent) shall be completed.

5.4.2 Annual Site Inspections

A comprehensive site-wide inspection shall be performed annually, to assess and verify the soil cover system remains in satisfactory condition. These annual inspections must be performed when the ground surface is visible (i.e., no snow cover), and shall be conducted by a representative who meets one of the following criteria:

- Qualified environmental professional per definition in 6 NYCRR Part 375
- A Professional Engineer (PE) or Professional Geologist (PG) who is licensed and registered in New York State
- A qualified person who reports directly to a PE or PG who is licensed and registered in New York State

Inspections shall be documented on a site-specific form, established for compiling sufficient information to assess the following, at a minimum:

- General site conditions at the time of the inspection
- An evaluation of the condition and continued effectiveness of the soil cover system
- Whether permanent stormwater management systems are working as designed.
- A review of site records pertinent to the soil cover system, and confirmation these are up-to-date
- Compliance with requirements of Soil Management Plan (reference LRWP)

A sample form for use during the annual inspection is included in **Appendix C**.

5.4.3 Severe Weather Event/Significant Site Operations Inspections

A comprehensive site-wide inspection shall be performed after the occurrence of a severe weather event or significant site operations, considered to have the potential for damage or disturbance to the site cap and/or stormwater management features. The site SWPPP also includes provisions for inspections after a severe weather event. The sample form included in **Appendix C** can be used for documentation of these inspections, if not otherwise covered under inspection documentation described in the SWPPP.

5.5 Recordkeeping

Records and documentation pertinent to the site construction, landfill reclamation activity, and post-closure operations should be maintained and accessible for review upon request. Following is a list of the types of records and documentation that should be maintained:

- Site investigation reports
- LRWP and modification letter
- Soil Management Plan (included with LRWP via appendix)
- Groundwater Monitoring Well Plan and groundwater sampling and analysis reports
- Landfill Closure Certification Report
- Construction inspection and observation reports
- Construction-related testing reports pertinent to components of the landfill reclamation activities (e.g., community air monitoring reports, soil sampling and analysis reports, soil compaction testing)
- Construction-related material/product data pertinent to components of the landfill reclamation activities (e.g., site cap materials, stormwater system components)
- As-built plans (included with Landfill Closure Certification Report via appendix)
- Annual site inspection and severe weather event/significant site operations inspection reports (minimum of 3 years recommended)
- Records of any repairs or modifications to site cap

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TABLES

Table 1 – Status of Site Preparation Work

Table 1 – Status of Site Preparation Work

Site Preparation Activities Described in LRWP	Performance During Construction	Long-Term Status
All wooded areas on the property to be cleared and grubbed, with the exception of trees along the shoreline	Clearing and grubbing have removed wooded areas, with trees along the shoreline remaining	Trees along the shoreline are to remain for the foreseeable future. Trees are not planned for planting in other areas, and as such, should not impact the site cap and underlying coal ash materials.
Approximately 0.81 acre of wetland area to be impacted at the northwest section of the site, with mitigation measures pursuant to the Stormwater Pollution Prevention Plan (SWPPP)	Wetland impacts and mitigation completed pursuant to project plans and permits.	N/A
Rail cars and rail line to be removed from the site	Rail cars and rail line were removed	N/A
Grading to include excavation at designated areas of cuts; however, majority of site will receive fill	Site grading has been completed, with portions of coal ash relocated via planned cuts and fill	No further site excavation is currently planned. In the event that localized excavations need to be performed in the future, work shall be performed per conditions of the Soil Management Plan
Aggregate surcharging to be applied to footprints of each of 4 buildings to be constructed, in addition to a utility crossing area	Aggregate surcharging has been completed for the building footprints and utility crossing area.	Buildings are yet to be constructed. The landfill materials, with site cap, are not expected to be significantly impacted or altered during future building construction.
Entrance driveway to be constructed on the south end of the west side of the site	Entrance driveway has been constructed.	The entrance driveway will remain as permanent access to the site.
Erosion and sediment control to be implemented per SWPPP conditions	SWPPP was implemented during construction for erosion and sediment control, with routine inspections. Maintenance or modifications provided as needed.	The erosion and sediment control plan employed temporary and permanent measures. Temporary measures will not be applicable to long-term site operations. Permanent measures include riprap outlet protection, soil stabilization, check dams, and diversion dikes, and will require continued maintenance.
Site stormwater management systems to be installed pursuant to SWPPP conditions	SWPPP was implemented during construction for site stormwater management.	Permanent stormwater management features will remain at the site. Albany Port District Commission will be responsible for maintenance of post-construction stormwater management facilities, including jellyfish filter (12 units at 7 locations), stormwater ponds (2), infiltration basins (2), dry swales (2), and stormwater collection and conveyance systems.
A gated security fence to be installed around the site	An 8-foot chain link security fence, with lockable gates at entrances, was installed for the construction site.	A security fence will be maintained for the facility, which will serve to restrict access to the site.

FIGURES

Figure 1 – Site Location Map

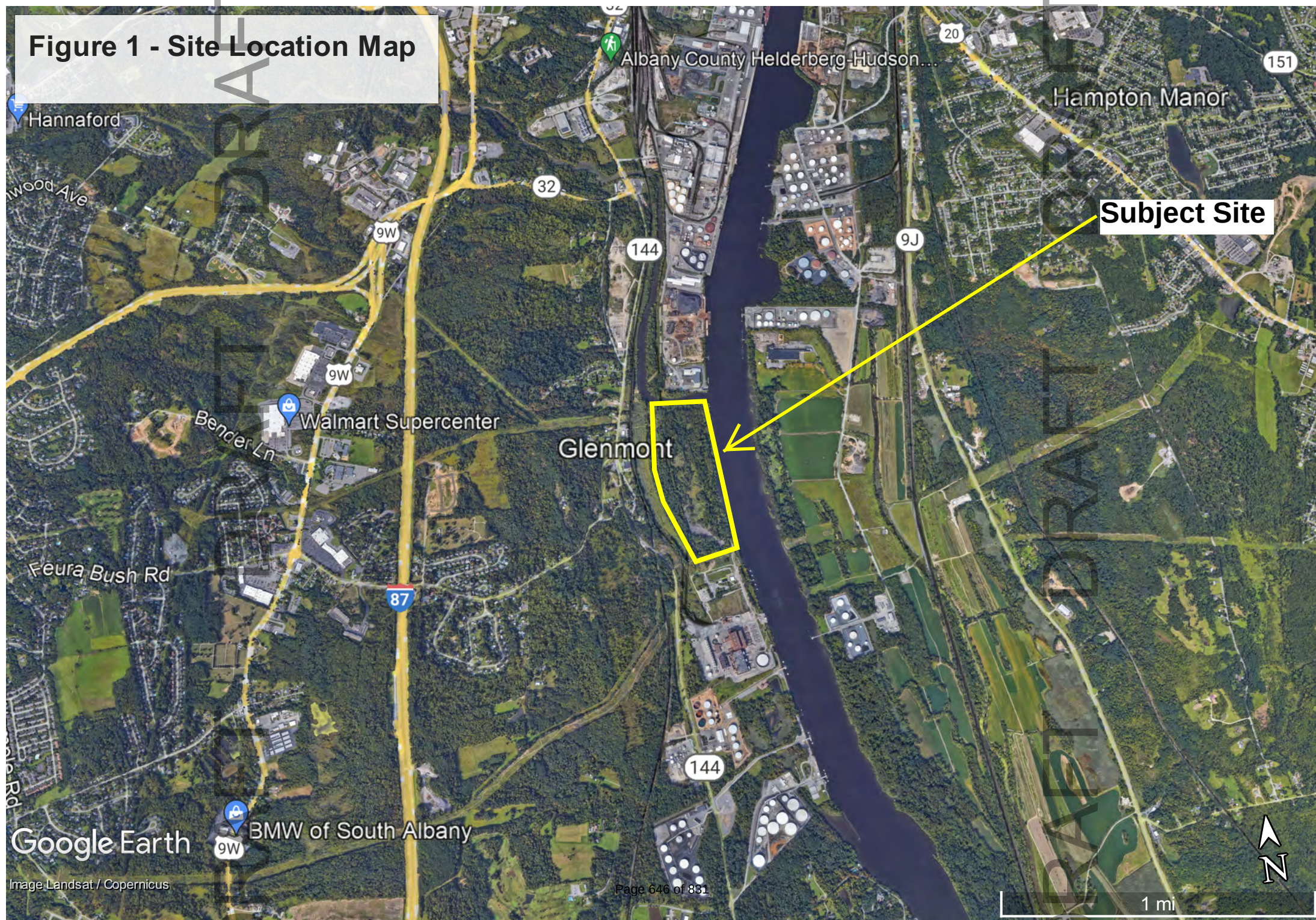
Figure 2 – Aerial View of Existing Site Conditions (Photograph Dated October 15, 2024)

Figure 3 – Aerial Extent of Landfill Material - Pre-Construction

Figure 4 – Landfill Reclamation As-Built Plan

Figure 5 – Landfill Reclamation Site Cap (Gravel Thickness)

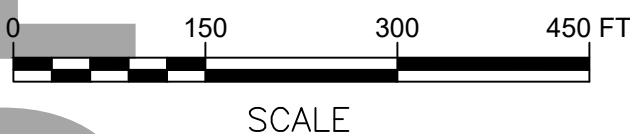
Figure 1 - Site Location Map



N:\18641\01 ALBANY PORT EXPANSION\DRAWINGS\FIGURE 2 SITE PREPARATION\LANDFILL RECL. FIGURE 2 AERIAL.DWG



AERIAL SITE PHOTO FROM OCTOBER 15, 2024.





McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE		
PERMIT FIGURE		
NO.	DATE	DESCRIPTION

CLIENT:
ALBANY PORT DISTRICT COMMISSION

PROJECT:
ALBANY, NEW YORK

PROJECT:
PORT EXPANSION SITE - SITE PREPARATION

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=150'
DATE	OCTOBER 18, 2024
PROJECT	18641.00

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE
**LANDFILL RECLAMATION
AERIAL PHOTO**

DRAWING NUMBER
FIGURE 2

OF



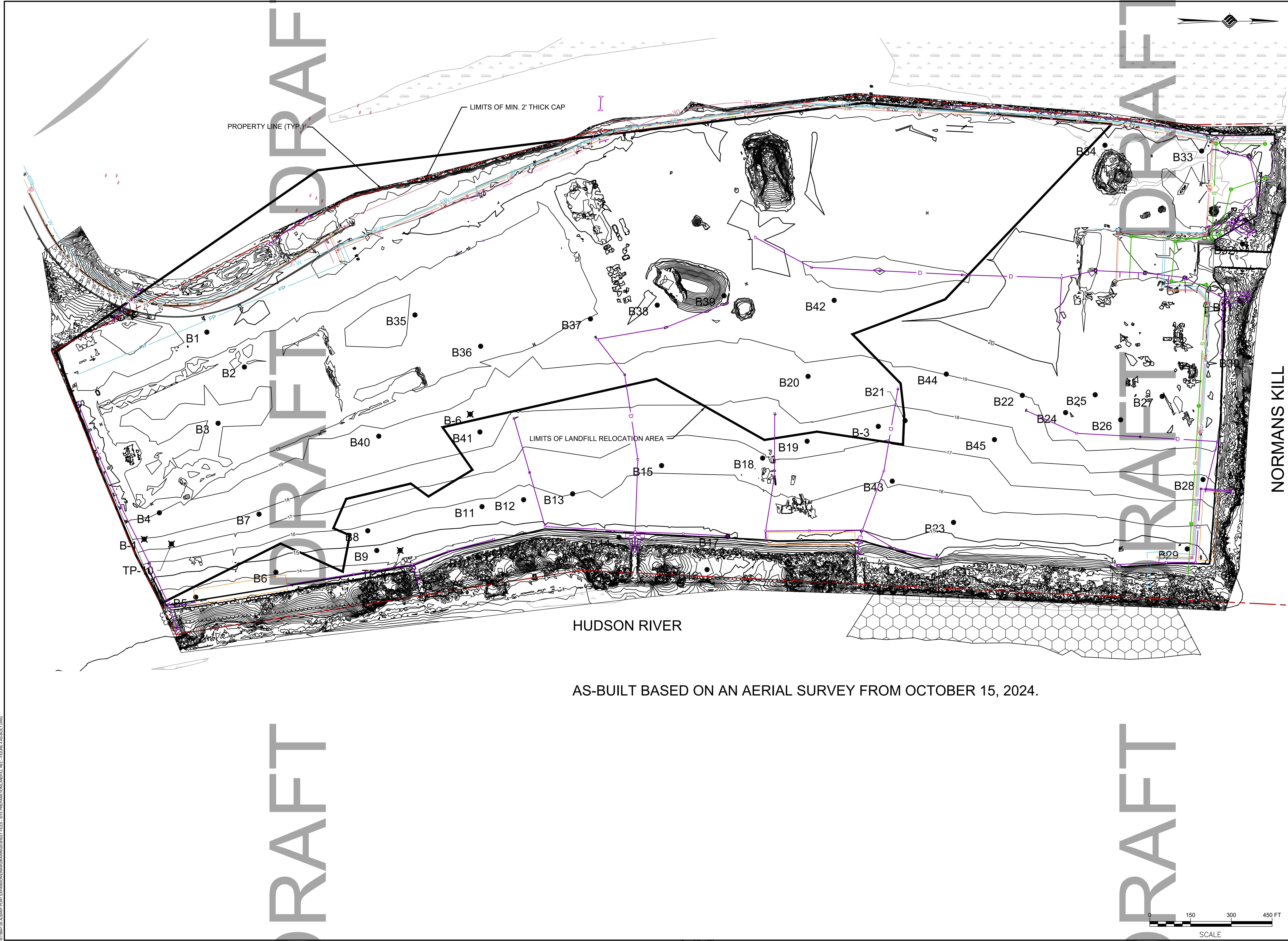
LEGEND :



Approximate Aerial Extents of Coal Ash Material

AERIAL EXTENT OF LANDFILL MATERIAL - PRE-CONSTRUCTION	Drawn By:	Drawing:	Scale:	Project No.:	Date :
	CJD	Fig. 2	As Noted	AT5596	October 2022
Beacon Island Parcel Bethlehem, Albany County, New York		ATLANTIC TESTING LABORATORIES, Limited Albany, NY Binghamton, NY Canton, NY Elmira, NY Poughkeepsie, NY Plattsburgh, NY Rochester, NY Syracuse, NY Utica, NY Watertown, NY WBE Certified Company www.AtlanticTesting.com			

NOTED TO ALANY PORT EXPANSION DRAWINGS SHEET FILES. SITE PREPARATION, LANDFILL, REC. FIGURE 4 AS-BUILT DWS.





McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P: 518-580-9380 F: 518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE

PERMIT FIGURE

NO.	DATE	DESCRIPTION

CLIENT:

ALBANY PORT DISTRICT COMMISSION

ALBANY, NEW YORK

PROJECT:

PORT EXPANSION SITE - SITE PREPARATION

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=150'
DATE	OCTOBER 18, 2024
PROJECT	18641.00

CONCEPTUAL
FIGURE
NOT FOR
CONSTRUCTION

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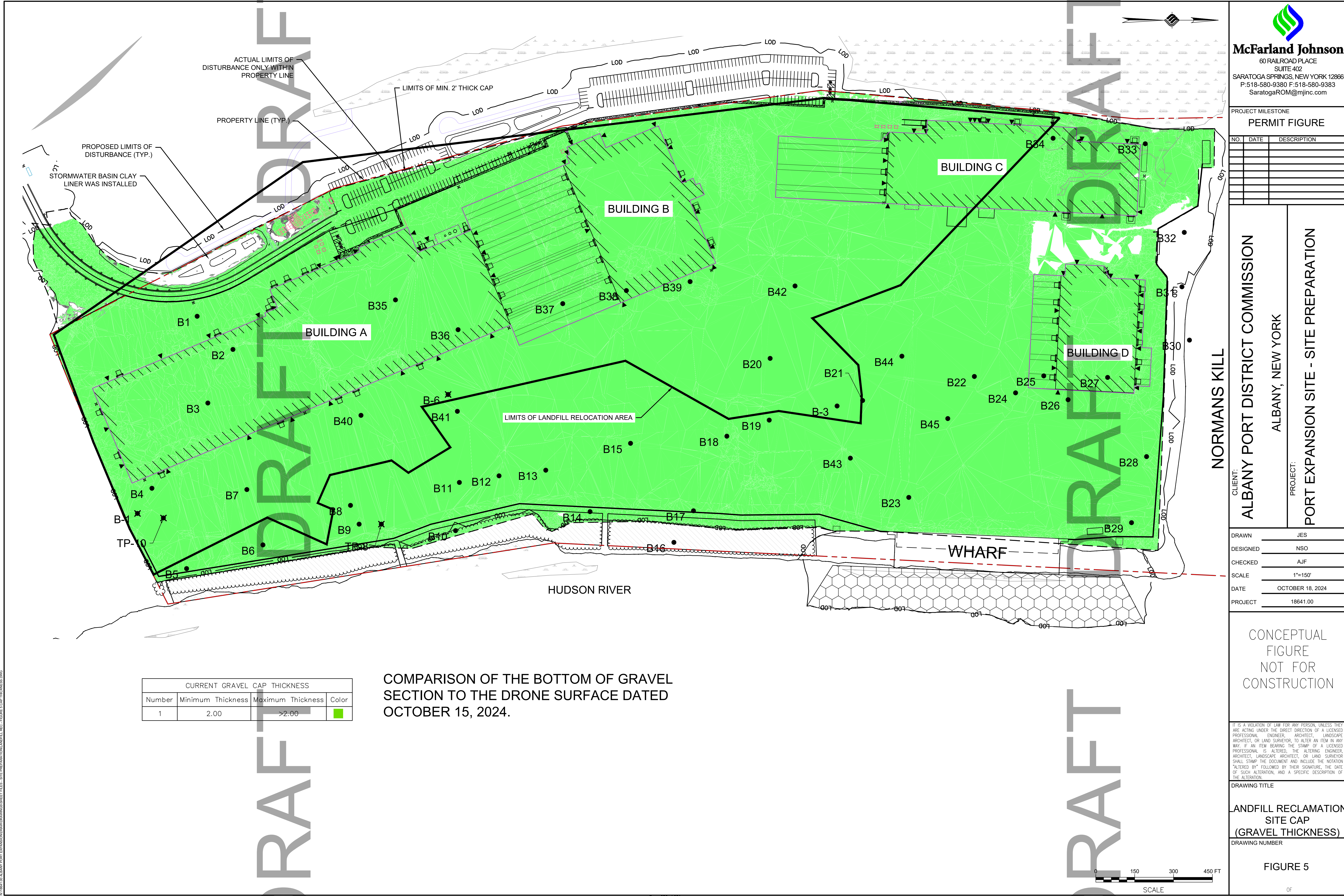
DRAWING TITLE

**LANDFILL RECLAMATION
AS-BUILT PLAN**

DRAWING NUMBER

FIGURE 4

OF



CURRENT GRAVEL CAP THICKNESS			
Number	Minimum Thickness	Maximum Thickness	Color
1	2.00	>2.00	■

COMPARISON OF THE BOTTOM OF GRAVEL SECTION TO THE DRONE SURFACE DATED OCTOBER 15, 2024.



McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE		
PERMIT FIGURE		
NO.	DATE	DESCRIPTION

CLIENT:
ALBANY PORT DISTRICT COMMISSION

PROJECT:
**ALBANY, NEW YORK
PORT EXPANSION SITE - SITE PREPARATION**

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=150'
DATE	OCTOBER 18, 2024
PROJECT	18641.00

CONCEPTUAL
FIGURE
NOT FOR
CONSTRUCTION

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DRAWING TITLE

**LANDFILL RECLAMATION
SITE CAP
(GRAVEL THICKNESS)**

DRAWING NUMBER

FIGURE 5
OF

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DRAFT DRAFT DRAFT

APPENDIX A
6 NYCRR Part 360 Registration

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Materials Management, Region 4

1130 North Westcott Road, Schenectady, NY 12306-2014

P: (518) 357-2045 | F: (518) 357-2398

www.dec.ny.gov

October 28, 2022

Port of Albany
106 Smith Boulevard
Albany, NY 12202 United States

Re: Beacon Island - Bethlehem

Landfill reclamation - registration Registration # 01L12211

Dear Port of Albany:

Enclosed is the validated copy of your 6 NYCRR Part 360 registration, which becomes effective on October 28, 2022 and expires on October 27, 2027.

This letter only acknowledges receipt of your registration form and does not, in any way, verify that the information which you provided on the form is true or correct.

You are reminded that 6NYCRR Part 360 contains various requirements that must be followed to warrant your facility's continued status as a registered facility. Enclosed is a list of general requirements for a registered facility described in Section 360.15.

This registration does not exempt or preclude you from complying with any other applicable federal, state, or local laws, rules or regulations. If you have any questions regarding this matter, please contact me at the above telephone number.

Sincerely,



Jonathan Whitcomb
Assistant Engineer



REGISTRATION FOR A SOLID WASTE MANAGEMENT FACILITY
THIS IS NOT A UPA PERMIT

DATE ISSUED: 10/28/2022
DATE EXPIRES: 10/27/2027

1. FACILITY Beacon Island River Road Bethlehem Albany (county)	2. FACILITY OWNER Port of Albany 106 Smith Boulevard Albany NY 12202
3. FACILITY OPERATOR Port of Albany 106 Smith Boulevard Albany NY 12202	4. SITE OWNER Port of Albany 106 Smith Boulevard Albany NY 12202
5. REGISTERED ACTIVITY	
Types Landfill reclamation - registration (01L12211) [363]	Authorized Waste N/A - Landfill reclamation of existing coal ash
Maximum Throughput Limit: 0 cubic yards/day	
Storage: N/A	
6. OPERATIONS SCHEDULE - Normal schedule of operation N/A	7. NAME(S) OF ALL MUNICIPALITIES SERVED - Albany(Co), Bethlehem(T)

N.Y.S.D.E.C.
REGION 4 HEADQUARTERS
1130 N. WESTCOTT ROAD
SCHENECTADY, NY 12306-2014

*This registration does not exempt or preclude you from complying with any other applicable federal, state,
or local laws, rules or regulations.*

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DRAFT DRAFT DRAFT

APPENDIX B

Inactive Solid Waste Management Facility or Activity Notification Form



**INACTIVE SOLID WASTE MANAGEMENT
FACILITY OR ACTIVITY NOTIFICATION FORM**

FACILITY NAME:																																												
FACILITY ADDRESS:																																												
FACILITY CITY:	STATE:	ZIP CODE:																																										
TYPE OF INACTIVE FACILITY OR ACTIVITY: (Check all applicable boxes)																																												
<table border="0"><tr><td>☐ Anaerobic Digestion – permit</td><td>☐ Landfill – Long Island</td></tr><tr><td>☐ Anaerobic Digestion – registration</td><td>☐ Landfill – Municipal Solid Waste</td></tr><tr><td>☐ C&D Processing – permit</td><td>☐ Mobile Vehicle Crushers</td></tr><tr><td>☐ C&D Processing – registration</td><td>☐ Municipal Waste Combustor</td></tr><tr><td>☐ Composting – Source Separated Organic Waste – permit</td><td>☐ Recyclable Handling & Recovery</td></tr><tr><td>☐ Composting – Source Separated Organic Waste – registration</td><td>☐ Regulated Medical Waste – Radiopharmacy</td></tr><tr><td>☐ Composting – Yard Waste – permit</td><td>☐ Regulated Medical Waste – Onsite Treatment</td></tr><tr><td>☐ Composting – Yard Waste – registration</td><td>☐ Regulated Medical Waste – Commercial Treatment</td></tr><tr><td>☐ Composting/other Processing – Biosolids/other</td><td>☐ Regulated Medical Waste – Transfer Station</td></tr><tr><td>☐ Household Hazardous Waste</td><td>☐ Storage – Biosolids/Septage – permit</td></tr><tr><td>☐ Land Application – Biosolids/Septage/other – permit</td><td>☐ Storage – Nonrecognizable Food Processing Waste</td></tr><tr><td>☐ Land Application – Nonrecognizable Food Processing Waste – registration</td><td>☐ Storage – Septage – registration</td></tr><tr><td>☐ Land Application – Septage - registration</td><td>☐ Transfer Station – permit</td></tr><tr><td>☐ Landfill – Construction & Demolition Debris</td><td>☐ Transfer Station – registration</td></tr><tr><td>☐ Landfill – Industrial/Commercial</td><td>☐ Vehicle Dismantling Facility</td></tr><tr><td>☐ Landfill – Land Clearing Debris</td><td>☐ Waste Tire Storage – Dealer</td></tr><tr><td></td><td>☐ Waste Tire Storage – New Product Manufacturing</td></tr><tr><td></td><td>☐ Waste Tire Storage – Onsite Energy Recovery</td></tr><tr><td></td><td>☐ Waste Tire Storage – permitted</td></tr><tr><td></td><td>☐ Waste Tire Storage – Retreader</td></tr><tr><td></td><td>☐ Other _____</td></tr></table>			☐ Anaerobic Digestion – permit	☐ Landfill – Long Island	☐ Anaerobic Digestion – registration	☐ Landfill – Municipal Solid Waste	☐ C&D Processing – permit	☐ Mobile Vehicle Crushers	☐ C&D Processing – registration	☐ Municipal Waste Combustor	☐ Composting – Source Separated Organic Waste – permit	☐ Recyclable Handling & Recovery	☐ Composting – Source Separated Organic Waste – registration	☐ Regulated Medical Waste – Radiopharmacy	☐ Composting – Yard Waste – permit	☐ Regulated Medical Waste – Onsite Treatment	☐ Composting – Yard Waste – registration	☐ Regulated Medical Waste – Commercial Treatment	☐ Composting/other Processing – Biosolids/other	☐ Regulated Medical Waste – Transfer Station	☐ Household Hazardous Waste	☐ Storage – Biosolids/Septage – permit	☐ Land Application – Biosolids/Septage/other – permit	☐ Storage – Nonrecognizable Food Processing Waste	☐ Land Application – Nonrecognizable Food Processing Waste – registration	☐ Storage – Septage – registration	☐ Land Application – Septage - registration	☐ Transfer Station – permit	☐ Landfill – Construction & Demolition Debris	☐ Transfer Station – registration	☐ Landfill – Industrial/Commercial	☐ Vehicle Dismantling Facility	☐ Landfill – Land Clearing Debris	☐ Waste Tire Storage – Dealer		☐ Waste Tire Storage – New Product Manufacturing		☐ Waste Tire Storage – Onsite Energy Recovery		☐ Waste Tire Storage – permitted		☐ Waste Tire Storage – Retreader		☐ Other _____
☐ Anaerobic Digestion – permit	☐ Landfill – Long Island																																											
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	☐ Waste Tire Storage – permitted																																											
	☐ Waste Tire Storage – Retreader																																											
	☐ Other _____																																											
DEC ACTIVITY CODE(S) OR REGISTRATION NUMBER(S):	FACILITY COUNTY:	NYSDEC REGION #:																																										

This document certifies that the type of facility or activity identified above is no longer operational. The owner/operator relinquishes their NYSDEC permit/registration and retains no other permit, registrations, or licenses related to the identified activity. It is recognized that in order to resume operation, a new permit application or registration form must be submitted to the Department for processing and approval. This notification does not excuse the facility from any closure, post-closure, or other requirements identified in 6 NYCRR Part 360.

I hereby affirm under penalty of perjury that information provided on this form was prepared by me or under my supervision and direction and is true to the best of my knowledge and belief, and that I have the authority to sign this form pursuant to 6 NYCRR Part 360. I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

_____ Name (Print or Type)	_____ Title (Print or Type)	(____)_____ Phone Number
_____ Address	_____ City	_____ State and Zip Code
_____ Signature	_____ Date	

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APPENDIX C
Site Inspection Form

Site Cap/Site Cover Inspection

Facility: Beacon Island
River Road, Bethlehem, Albany County, New York

Date of Inspection:		Type of Inspection:	☐ Annual
Weather Conditions:			☐ Severe Weather Event
			☐ Significant Site Operations

Site Cap/Site Cover Conditions

Evidence of significant differential settlement (i.e., depressions, water ponding, sloughing)?

Evidence of erosion?

Vegetation established and maintained to minimize erosion?

Vegetative layers in good condition?

Evidence of woody vegetation?

Evidence of damage due to burrowing animals?

Evidence of damage or disturbance by people or equipment?

Evidence of excavation and material replacement?

Evidence of spills?

Stormwater/Leachate Components

Stormwater components functional?

Drainage features free of obstruction?

Evidence of sediment buildup in drainage components?

Evidence of leachate breakouts or seeps?

Records Review

Records of repairs or modifications to site cap since previous inspection?

Records of activities related to Soil Management Plan since previous inspection?

Records of groundwater monitoring since previous inspection?

Records of stormwater inspections or maintenance since previous inspection?

Other records?

Notes



Geotechnical Engineering Report

**Proposed Marmen Manufacturing Facility
Port of Albany, New York**

February 4, 2022

Terracon Project No. JB215020

Prepared for:

McFarland-Johnson, Inc.
Saratoga Springs, New York

Prepared by:

Terracon Consultants - NY, Inc.
Albany, New York

February 4, 2022

McFarland-Johnson, Inc.
66 Railroad Place – Suite 402
Saratoga Springs, NY 12866



Attn: Mr. Steven Boisvert, P.E.
p: (518) 580-9380
e: sboisvert@mjinc.com

Re: Geotechnical Engineering Report
Proposed Marmen Manufacturing Facility
Port of Albany, New York
Terracon Project No. JB215020

Dear Mr. Boisvert:

We have completed the Geotechnical Engineering services for the referenced project. This study was performed in general accordance with Terracon proposal no. PJB215020 and the agreement for subconsultant professional services between McFarland-Johnson and Terracon entered into on or about June 1, 2021. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations, floor slabs and pavements for the project.

Terracon submitted a draft geotechnical report for this project in October 2021, and we understand the design team has completed their review of the draft report. This final report has been prepared cognizant of comments made through the review and evaluation process and has been updated and/or revised accordingly.

We appreciate the opportunity to be of service to you. If you have any questions concerning this report or if we may be of further service, please contact us at your convenience.

Sincerely,

Terracon Consultants-NY, Inc.

John S. Hutchison, P.E.
Senior Engineer

Joseph Robichaud, Jr., P.E.
Principal / Office Manager

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Note: This report was originally delivered in a web-based format. **Orange Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the [GeoReport](#) logo will bring you back to this page. For more interactive features, please view your project online at client.terracon.com.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES
SITE LOCATION AND EXPLORATION PLANS
EXPLORATION RESULTS
SUPPORTING INFORMATION

Note: Refer to each individual Attachment for a listing of contents

Geotechnical Engineering Report
Proposed Marmen Manufacturing Facility
Port of Albany, New York
Terracon Project No. JB215020
February 4, 2022

INTRODUCTION

This report presents the results of our subsurface exploration and geotechnical engineering services performed for the proposed Marmen manufacturing facility on Beacon Island at the Port of Albany, New York. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Groundwater conditions
- Site preparation and earthwork
- Seismic site classification
- Slope stability
- Foundation design and construction
- Floor slab design and construction
- Pavement design and construction
- Retaining wall design and construction
- Frost considerations

The geotechnical engineering scope of services for this project included the advancement of 18 conventional test borings to depths ranging from 30.1 to 165.0 feet below existing site grades, completion of 12 test pits to depths between 11.5 and 16 feet, site reconnaissance by a geotechnical engineer, laboratory testing of selected soil samples, and preparation of this summary report.

Previous subsurface and/or geotechnical investigations have been completed by Dente/Terracon and others on the Beacon Island site. These include:

- Environmental Subsurface Investigation and Soil Sampling – ATL, October 2020
- Subsurface Exploration Data Report (for Wharf) – CME Associates, October 2020
- Subsurface Investigation (at Bridge Site) – ATL, May 2020
- Supplemental Geotechnical Report – Dente/Terracon, July 2017
- Preliminary Geotechnical Evaluation – CME Associates, April 2017
- Phase II Environmental Site Assessment – Bergmann Associates, April 2017

Information from these previous studies has been considered in the preparation of this report and is included herein where referenced and as applicable.

Note that an additional six boreholes were included in a contingency work scope which was ultimately not carried out, as the information from the base scope boreholes coupled with that from the previous investigations at the site was ultimately judged sufficient for the purposes of this study.

Maps indicating the site and test boring locations are included as the attached **Site Location** and **Exploration Plan**, respectively.

SITE CONDITIONS

Existing conditions at the site are summarized in the following table:

Item	Description
Parcel Information	The project site is located in the town of Bethlehem, New York along the west side of the Hudson River, south of the currently developed portion of the Port of Albany and the point at which the Normanskill Creek empties into the river. The site is about 80 acres in size, with geographic coordinates at the approximate center of the parcel at 42.6038° N, 73.7656° W.
Existing Improvements	None, other than an abandoned railroad spur.
Current Ground Cover	Woods and heavy vegetation currently comprise the ground cover across much of the site, although some trails and traveled ways have been established in places. A clearing exists at the south end of the site.
Existing Topography	Topographic mapping provided for our use indicates that existing landside grades currently range between elevations of about 7 and 21 feet, and slope down accordingly along the banks of the tidally influenced river and creek where mean high water level is reportedly elevation 3.8 feet.
Geology	NYS geologic mapping indicates alluvial deposits in the site locale. Previous subsurface investigations in the area indicate the site is mantled with fill materials and river sediments, followed in sequence with depth by alluvial deposits, glaciolacustrine silt and clay, glacial till and ultimately shale bedrock.

The site is situated in an area once occupied by Beacon Island and a portion of Cabbage Island in the Hudson River, along with side channels of the river that separated the islands from both the mainland and from one another. Review of available historical topographic and aerial imaging reveals that previously submerged portions of the site have been filled over the last 100 years or so, in effect joining the site with the mainland.

As has been described in the previously referenced reports, much of this filling occurred through the placement of waste coal ash from the power generating station just south of the site. The plant was coal fired upon its construction in the early 1950s until about 1970, when its boilers were converted to use fuel oil and later natural gas. Waste coal ash during the plant's coal burning years was disposed of on the project site, primarily on the site's west side and at its south end. The method of placement of the coal ash is unknown with certainty, but is believed to have been transported in bulk and pushed/tracked into place as opposed to hydraulically placed.

PROJECT DESCRIPTION

General

As we understand it, the project entails construction of a new industrial facility where off-shore wind turbine supports will be manufactured. In general, this will involve the fabrication of large cylindrical tower sections and transition pieces from flat steel stock. Raw material will arrive at the existing Port of Albany north of the site and will be transported to the site via a new bridge which is to be built across the Normanskill Creek (we have addressed the bridge in a separate geotechnical report). Finished product will be shipped out from a wharf to be constructed near the site's northeast corner (note that the wharf is being designed by others and is not addressed herein).

The facility will be comprised of four separate buildings (Buildings A thru D), along with a gravel surfaced yard area for the storage/staging of finished tower sections and transition pieces prior to shipment from the wharf. The function and relative size of each proposed building are outlined as follows:

- Building A – Plate Preparation and Welding (291,617 sq.ft.)
- Building B – Welding Finishing (89,074 sq.ft.)
- Building C – Blast-Metallization-Paint (142,371 sq.ft.)
- Building D – Internal Assembly/Finishing (67,217 sq.ft.)

Plans call for these to be single-story, high-bay, slab-on-grade buildings with pre-fabricated metal superstructures. No below grade levels are planned, although one or more service pits up to 8 feet in depth will be included in Buildings A and C. The buildings and some areas about their exterior will include rails embedded in the slabs to facilitate production flow and material transport with tower rotators and transfer cars on the rails. The buildings will also feature overhead cranes for picking and moving materials and equipment about their interiors.

In the gravel surfaced yard area, the tower sections will be staged/stored horizontally, and the transition pieces will be staged/stored vertically. The fabricated product will be moved about using large reach stackers and self-propelled modular transporters (SPMTs) as described below. Curbs will in general define the limits of the yard area, beyond which grades will slope down to the river or creek.

Anticipated Loads

Generally speaking, the products to be manufactured at the facility, the materials from which they will be fabricated, and the equipment required to move these items about are all rather large and heavy. Marmen has furnished a load case document outlining a number of anticipated loading conditions associated with the anticipated material handling and plant operations. These include:

Geotechnical Engineering Report

Proposed Marmen Manufacturing Facility ■ Port of Albany, New York

February 4, 2022 ■ Terracon Project No. JB215020



Load Case	Description
A	Tower rotator on rails
B	Transfer car on rails
C	Steel shells on slab
D	Metallization transfer car
E	Plate trailer, 130,000 lb. tandem axle
F	36,000 lb. capacity forklift
G	70,000 lb. capacity forklift
H	HLM 3500 reach stacker (loaded)
J	HLM 3500 reach stacker (unladen)
K	Tower section and transition piece storage

As we understand it, load cases A thru D in the table above represent those which will act on rails embedded in the building or exterior slabs, or those which will be imparted on the slabs themselves, whereas load cases E thru J may act on either the slabs or on the gravel surfaced yard area. Load case K represents storage of the manufactured product which will take place only in the yard area east of the buildings.

For the purposes of this evaluation, we understand that combined live and dead loads within the building and exterior slab areas will not exceed 600 pounds per square foot (psf) when aggregated across a given building (or slab) footprint. Individual building column loads, when coupled with crane loads, are not expected to exceed 256 kips at Buildings B thru D. At Building A this load combination is anticipated to be upwards of 899 kips, or in the most extreme case 1365 kips assuming maximum snow, crane and operational loads all coinciding which, in the event this were to occur, would be transient. The design team has informed us that there are no substantial reciprocating loads.

Among the transport vehicles which will traverse the gravel surfaced yard, it appears the loaded reach stacker represents the most severe case. The reach stacker laden front axle design load is 449 metric tons (495 tons imperial) which will ride on five large tires inflated to 8.0 bar (117.6 psi) each. Total area under the front axle is about 156 sq.ft., resulting in an overall unit ground pressure of about 6,300 psf beneath the axle.

Although not listed among the load cases, self-propelled modular transporters (SPMTs) will also traverse the yard. Each SPMT has a design laden gross weight of 240 metric tons (265 tons imperial) which will ride on 16 polyfilled tires. Total area under the carriage is about 146 sq.ft., resulting in an overall unit ground pressure of about 3,600 psf beneath the carriage. It is understood that both the reach stackers and SPMTs will be restricted from areas west of Buildings A, B and C, and north of Buildings C and D.

We understand that fabricated tower sections will be upwards of 10 meters (32.8 feet) in diameter, 50 meters (164 feet) in length and will weigh up to 800 metric tons (1,760,000 pounds), while the transition pieces will be upwards of 10 meters (32.8 feet) in diameter, 35 meters (115 feet) in length and will weigh up to 800 metric tons (1,760,000 pounds).

As detailed in load case K, plans call for the tower sections to be staged horizontally on moveable storage fixtures, one on each end. Each fixture is to have two bearing plates which will bear on the gravel yard surface, each plate 20 sq.ft. in plan area, this resulting in a unit contact pressure upwards of 22,000 psf as currently planned.

The transition pieces are to be staged in a vertical position, on modular jersey barrier-like units 1.25 meters (4.1 feet) wide at their base and 10 to 14 meters (32.8 to 45.9 feet) in length. Each transition piece is to be supported on three units, with resulting contact pressures at the base of the units bearing on the gravel yard surface between 3,300 psf and 4,700 psf.

Tolerable Settlements

The Marmen load case document outlines tolerances for relative rail displacements and accommodating these will largely be a function of slab stiffness, as we understand it.

The document lists maximum allowable settlement at exterior man door and garage door slabs as 1 inch relative to the building, and maximum allowable settlement at interior and exterior slabs with rails as ½ inch relative to the rails and/or building.

While we have not been provided with allowable settlement for the buildings as a whole, it is our understanding that steel framed, metal clad structures of this type are relatively settlement tolerant, and displacements of two to three inches can usually be accommodated without causing a structural concern.

In the yard area, we understand the end user acknowledges rutting, aggregate kick-out and/or settlement of the aggregate surface will occur with use over time, and that they will re-dress and re-level the yard area surface as needed. It is further understood that settlement beneath the tower section storage fixtures need only be limited such that the tower sections remain off the ground, while allowable differential settlement beneath the transition piece modular units is reportedly 3 inches.