



GENERAL MAINTENANCE CARD

Stormwater Coalition of Albany County

Facility: Wetland - Pond/Wetland System (W-3)

Funding for This Project Provided by the
New York State Department of Environmental Conservation
Environmental Protection Fund

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November 2009

MAJOR AREAS OF PRACTICE

- | | | |
|--------------------------|----------------------|-----------------------|
| A. Maintenance Accessway | D. Concrete Spillway | G. Outlet Structure |
| B. Inlet Structure | E. Plunge Pool | H. Outfall |
| C. Wet Pond | F. Micropool | I. Emergency Spillway |

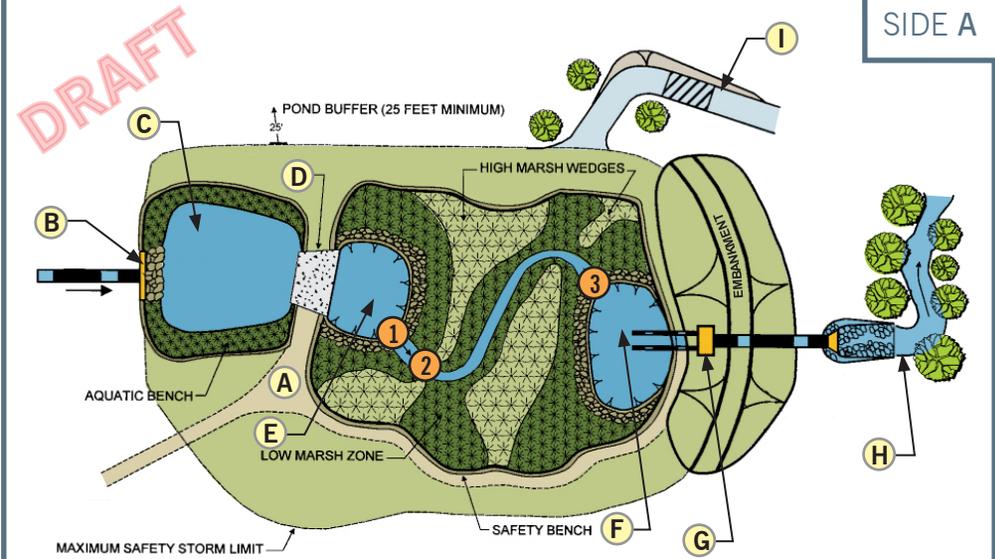
PURPOSE AND FUNCTION

A wetland system that provides a portion of the water quality volume in the permanent pool of a wet pond that precedes the marsh for a specified minimum detention time.

SHORT-TERM MEASURES (FREQUENCY: AT LEAST ONCE A MONTH)

Drainage Issues:

- Inspect wetland surface area.**
 - Remove accumulated debris/floatables manually or by other approved means, if required. Dispose of debris off-site.
 - Note the existence of excessive algae, if present.
- Inspect the inlet structure (Location B), concrete spillway (Location D) and plunge pool (Location E).**
 - Remove accumulated debris/floatables near the inlet pipe/concrete spillway/plunge pool/rip-rap apron manually or by other approved means, if required. Dispose of debris off-site.
 - Note any cracks in pipe, headwall/concrete pipe collar, and concrete spillway.
 - Note displaced field stone at rip rap apron and plunge pool.
- Inspect the outlet structure (such as riser box at Location G) and micropool (Location F).**
 - Riser Box**
 - Manually remove debris accumulated on the trash rack; dispose of debris off-site.
 - Note any cracks/damage to concrete riser box.
 - Manually remove debris/critters lodged in reverse-flow pipe; dispose off-site.
 - Correct any issues relating to flow short-circuiting, if present.
 - Outfall (Location H)**
 - Remove accumulated debris/floatables near the outfall spillway approach and discharge channels manually or by other approved means, if required. Dispose of debris off-site.
 - Note any displaced field stone.
- Inspect the emergency spillway (Location I).**
 - Vegetated emergency spillway channels should be mowed and should not be cut to less than 6 to 8 inches in height.
 - The emergency spillway approach and discharge channels should be cleared of brush and other woody growth.
 - After any flow has passed through the emergency spillway, the spillway crest (control section) and exit channel should be inspected for erosion. Note location of any eroded areas.
- Inspect adjacent catch basin grates and manhole covers.**
 - Remove accumulated debris; dispose off-site.



Landscaping Issues:

6. Inspect overall condition of installed vegetation.

- Remove vegetative invasives manually, ensuring root removal, to the extent possible. Note any significant establishment for future removal/maintenance.
- Relocate rodents and/or provide exclusion devices, as required.
- Trim shrubs and cut grass along street frontages, as required.

Perimeter Treatment:

7. Inspect overall condition of the perimeter treatment items.

- Remove accumulated litter/debris by hand; dispose off-site.
- Promptly notify NYSDEC police regarding illegal dumping.
- Secure gates, guiderails, signs, and boulders, as required.

MODERATE-TERM MEASURES (FREQUENCY: ONCE EVERY SIX MONTHS)

Drainage Issues:

- Measure the sediment depth in plunge pool and micropool (Locations E & F).**
- Inspect the inlet structure (Location B), concrete spillway (Location D) and plunge pool (Location E).**
 - Repair cracks/damaged stones on headwall, as required.
 - Repair cracks in pipe or concrete pipe collar using a sealant, as required.
 - Repair cracks in concrete spillway, as required.
 - Replace displaced field stone, as required.
- Inspect the outlet structure (Location G) and micropool (Location F).**
 - Repair cracks/damage to concrete riser box, as required
 - Replace displaced field stone, as required.
- Inspect the emergency spillway (Location I).**
 - Repair and stabilize eroded areas in the exit channel, as necessary.
- Inspect for unstable embankments.**
 - Repair/reinforce unstable embankments using field stone, plantings, etc.

Albany County

City of Albany

Town of Bethlehem

City of Cohoes

Town of Colonie

Village of Colonie

Village of Green Island

Town of Guilderland

Village of Menands

Town of New Scotland

Village of Voorheesville

City of Watervliet

SUNY Albany

Landscaping Issues:

6. Inspect plant mortality.

- Remove dead plants by hand; dispose off-site; replant as required.
- Trim and remove specified trees, as required.

7. Inspect for significant establishment of invasives and develop an area-wide plan for removal.

8. Inspect for herbivore damage.

- Repair burrows/damage created by rodents, as required.
- Introduce alternative plantings, as required.

Perimeter Treatment:

9. Lubricate locks and hinges on gates, as required.

10. Refurbish wood chips on accessway and site perimeter, as required.

11. Inspect and repair damaged sidewalks, fencing, guiderail, and signs, as required.

LONG-TERM MEASURES (FREQUENCY: ONCE EVERY YEAR)

Landscaping Issues:

1. Inspect the Low Marsh and High Marsh zones.

- If a minimum coverage of 50% is not achieved in the planted wetland zones after the second growing season, a reinforcement planting is required.
- Ensure that adequate water depth is maintained for desired wetland plant species.
- Ensure survival of desired wetland plant species and that the distribution is in accordance with the landscaping plan. Replace plantings and revise landscaping plan, as required.

LONG-TERM MEASURES (FREQUENCY: ONCE EVERY TWO YEARS)

Drainage Issues:

1. Remove sediment from plunge pool/micropool and adjacent catch basins; vactoring recommended.

DEWATERING PROCEDURE AT PLUNGE POOL/MICROPOOL

The plunge pool/micropool must be dewatered before proceeding with vactoring operations. A NYSDEC-approved technique must be adopted to isolate the plunge pool/micropool prior to dewatering.

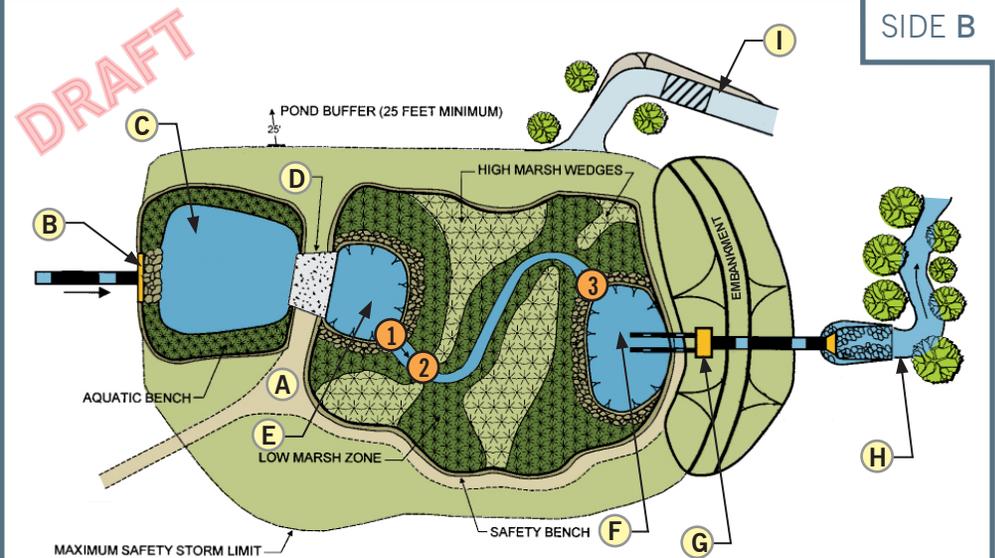
Methodology:

1. Park the vactor truck along the maintenance accessway near the inlet (Location A). The boom should be extended in the direction of the plunge pool/micropool.
2. Ensure clear access for a two-person crew down the slope near the plunge pool/micropool (Locations E & F).
3. Using a NYSDEC-approved technique/tool, such as a sand bag wall, isolate the plunge pool/micropool by erecting the sand bag wall perpendicular to the direction of flow at Locations 1 & 3.
4. The sand bag wall should extend up the slopes of the rip-rap beyond the edge of water to ensure no flow conveyance.
5. Pump out water from the plunge pool to the channel downstream (Location 2) or in the case of the micropool, to a sediment tank on the other side of the embankment.
6. Proceed with vactoring operations.
7. On completion of vactoring work, disassemble the sand bag wall manually and remove from site.

VACTORING PROCEDURE AT PLUNGE POOL/MICROPOOL

Methodology:

1. Connect the vactor truck to an approved nearby source of clean water for vactoring purposes.
2. Place water jet hose down the slope of the plunge pool/micropool (Locations E & F). Use hose to loosen accumulated sediment.
3. Place the flexible suction hose into the plunge pool/micropool (Locations E & F).



4. Perform vactoring operations by simultaneously using the suction arm and water jet hose to remove slurry until the rip-rap base is reached.
5. Continue slurry removal until capacity of vactor truck is reached.
6. Stop vactoring work. Dispose of slurry off-site.
7. Repeat Steps 1-6 until all the sediment has been removed.
8. After vactoring work is complete, carefully remove the flexible suction hose and the water jet hose from the plunge pool/micropool, and transport them back to the truck.
9. Inspect the accessway and adjacent area for damage, such as dislodged field stone, wood chips, etc., and refurbish as required.

Note: Secure locks on gates as necessary prior to exiting site.

Required Maintenance Permits	
Issuing Agency	Regulated Parameters
1. U.S. Army Corps of Engineers	- Sediment Removal and Placement of fill within wetlands
2. NYSDEC	- Temporary dewatering of wetland - Revegetation - Herbicide application

Maintenance Considerations During Design
- Erosion and Sediment Control <ul style="list-style-type: none"> ▪ Inlet/Outlet Protection ▪ Sediment Removal
- Landscaping
- Mechanical Issues
- Pond Drain
- Maintenance Access
- Cold Climate Considerations