

# **STORMWATER MANAGEMENT SYSTEM OPERATION AND MAINTENANCE MANUAL**

**Prepared for the**

**CANTON MOUNTAIN WIND PROJECT  
Canton, Maine**

**Owner**



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## **Maintenance of Common Facilities or Property**

Facilities requiring regular maintenance at the project include the stormwater management system and parking areas. Following are maintenance requirements that will be included for this project. Canton Mountain Wind, LLC (CMW) is the entity responsible for ensuring that maintenance will be completed in a timely manner.

During construction, the prime contractor, who has yet to be determined, will be responsible for all maintenance.

### **Long-Term Maintenance Plan**

At a minimum, inspect the following two times annually on or about May 1 and November 1 and after severe storms.

#### 1. Ditches

- a. Rip-rap lined ditches
  - ◆ Remove sediment buildup, leaves, litter or other debris from the bottom and side slopes.
  - ◆ Reposition stones to restore channel to original dimensions.
- b. Vegetated Ditches
  - ◆ Inspect the ditch lining monthly for slumping of the lining, downcutting of the ditches base, or undercutting of the banks.
  - ◆ Repair any damage immediately.
  - ◆ Mow or brush-cut annually to prevent the establishment of woody vegetation

#### 2. Culverts

- ◆ Inspect for sediment buildup.
- ◆ Flush pipes and remove sediment whenever the depth of the sediment at any location in the pipe exceeds 3 inches.

#### 3. Rip-Rap Aprons, Level Spreaders and Ditch Turnouts

- ◆ Inspect for dislodged stones or slumping of the stone lining.
- ◆ Reposition stones to restore the pool's original dimensions and a uniform surface.
- ◆ Clean any accumulated sediments and debris from the plunge pool.
- ◆ Cut and remove any woody vegetation growing within the pool.

#### 4. Vegetation

- ◆ Inspect vegetated areas and address as needed
- ◆ Re-seed and mulch areas where cover is less than 90 percent.
- ◆ Rework, seed and mulch areas that have spotty plant germination and are sparsely vegetated, or where soil erosion is evident.

#### 5. Stone Check Dams

- a. Prior to establishment of permanent vegetation:
  - ◆ Inspect check dams after each storm event until permanent vegetation is established.
  - ◆ Remove sediment buildup behind check dams.

- b. After establishment of permanent vegetation:
- ◆ Inspect for sediment build-up in void space between stones and dislodged stones.
  - ◆ Remove sediment build-up.
  - ◆ Seed and mulch disturbed areas.
  - ◆ Replace check dam if sediment is filling void space.
  - ◆ Replace dislodged stones.

6. Road Grading

- ◆ Grade the road to maintain the proposed roadway crown and to prevent the creation of berms or ruts that may channelize flow.

7. Underdrained Soil Filter

- ◆ Remove debris and sediment build up as needed
- ◆ Mow grassed basin if desired. Maintain grass heights of no less than 6 inches.
- ◆ The top several inches of filter shall be replaced with fresh material when water ponds on the surface for more than 72 hours.
- ◆ Repair any bare area of erosion rills with new filter media.
- ◆ The top of the filter bed must be roto-tilled to reestablish the soils filtration capacity if ponding exceeds 48 hours

8. Stormwater Buffers

- ◆ Inspect forested and meadow buffers for soil disturbance and any erosion
- ◆ Repair or re-vegetate any bare area or erosion rills

**Minimum Annual Maintenance**

1. Side slopes of gravel surfaces:

- ◆ Inspect slopes for rill erosion due to concentrated flows.
- ◆ Replace topsoil and reseed eroded slopes.

2. Level Spreaders and Ditch Turnouts

- ◆ Inspect and verify that top of stone is level (+/-1").
- ◆ Repair level lip to distribute flows uniformly across the buffer
- ◆ Inspect stone to ensure that it remains clean, free of sediment and in place as designed.
- ◆ Remove sediments. Replace any dislodged stone and maintain lip level to disperse flows uniformly across buffer area.

