



Ms. Cheryl Henlin
City of New Bedford
Department of Environmental Stewardship
133 William Street
New Bedford, Massachusetts 02740

Subject: Spring 2011 Wetland Inspection
Keith Middle School, New Bedford, Massachusetts

Dear Ms. Henlin:

In accordance with the Long-Term Monitoring and Maintenance Implementation Plan (LMMIP) prepared by BETA Group, Inc. dated October 20, 2006, for the Keith Middle School (KMS) in New Bedford, Massachusetts, TRC has completed its May 2011 inspection of wetlands abutting the KMS. A TRC senior ecologist conducted the inspection on May 24, 2011. As stated in the LTMMIP, the purpose of the inspection is to visually observe the wetlands and vicinity for unacceptable conditions including indications of excessive sedimentation occurring within the wetlands, including such conditions as, but not limited to, dumping of debris, exposed side slopes, erosion from spring rains, stressed or dead vegetation, animal burrows, slumping and unauthorized excavation.

The inspection consisted of walking the entire slope adjacent to the wetland area and observing areas of potential erosion and sedimentation at the wetland/cap slope interface. Observations were recorded in the Wetland Sediment Inspection Form included as Appendix F of the LTMMIP. A copy of the completed inspection form is provided with this letter as an attachment. Photographs taken during the inspection are also included as an attachment.

In general, the slope extending down to the wetland from the parking lots and rear school access drive is well vegetated with grasses and herbaceous plants. Overall, no evidence of erosion or sedimentation into the adjacent wetland was noted during the site inspection. Slopes previously noted as having thin vegetative cover were evaluated and determined to be fully vegetated and stabilized. The area of slope failure previously noted during the 2008 inspection has been stabilized with riprap and appears to be stable. The silt fence previously installed downgradient of the repaired area has been removed. One partially excavated burrow was evident in the northwestern portion of the cap slope during the inspection. This hole was approximately 6 inches deep and appears to have been abandoned as recent burrowing activity was not evident.

Seven to eight stands of the invasive plant Japanese knotweed (*Polygonum cuspidatum*) are present in the vicinity of stormwater outfalls and in the southern portion of the wetland/cap slope. These plants form a dense overstory that precludes understory vegetation from becoming established due to the heavy shading. Erosion is more likely to occur beneath the Japanese knotweed stands due to the absence of the ground vegetation. It is recommended that the knotweed stands be eliminated from the slope and vicinity of the wetland through one or two cuttings during the growing season with a subsequent herbicide application in the late summer/early fall. The initial cutting of the knotweed should proceed shortly. Currently, the height of the knotweed ranges from 5 to 8 feet. One or two cuttings of the knotweed over the summer will result in lower stem heights in the late summer/early fall so herbicide application can be minimized. In addition, a late summer/early fall herbicide application has been shown to be more effective in controlling knotweed as the plants are translocating nutrients from their leaves to their underground rhizomes at this time of the year. Glyphosate has been shown to be an effective herbicide for controlling Japanese knotweed. The herbicide needs to be applied carefully to the knotweed vegetation as overspray that contacts other vegetation will cause damage to non-target plants. Due to the presence of standing water immediately adjacent to several of the knotweed stands, it is recommended that an glyphosate herbicide be applied that is safe for water contact. Rodeo™ is a glyphosate-based herbicide that is much safer to use near surface waters than Round-Up™ which is also a glyphosate-based herbicide. The knotweed foliage should be sprayed (leaves should be wet but not dripping) with an active ingredient glyphosate concentration of only 2% so the Rodeo™ herbicide will require diluting with water to obtain the correct concentration. It should be noted that subsequent treatments may be required to completely eliminate stands of knotweed at the site.

Other recommendations regarding the slope conditions and stabilization/repair have been provided under a separate Cap Inspection report by TRC. Implementation of these recommendations will adequately protect the wetlands from any future erosion and sedimentation issues that may occur.

If you have any questions regarding this report, please contact me at 978-656-3583 or David Sullivan at 978-656-3565.

Sincerely,



Scott J. Heim
Senior Ecologist

Attachments

Attachment W-1

Wetland Sediment Inspection Form

WETLAND SEDIMENT INSPECTION FORM KEITH MIDDLE SCHOOL

Use this inspection form to document annual inspections. If unacceptable conditions are observed, complete an additional form immediately after repairs are completed.

Inspection Date: 5-24-11 Inspection By: Scott Heim - TRC Ecologist

A. SLOPE BETWEEN SCHOOL AND WETLAND -

Is slope condition acceptable? YES NO

(look for dumped debris or waste; stained soil; erosion of soil on slope leading down to wetland; subsidence or slumping of greater than two inches of soil on slope; dead vegetation, if such vegetation is required for erosion control; animal burrows; and/or evidence of unauthorized excavation)

If no, attach photograph

If no, describe unacceptable condition:

Location _____

Condition Partially excavated burrow present in NW portion of cap slope. Appears abandoned - no recent activity noted.

Describe any repairs to slope conducted since previous inspection:

Saplings cut - no repairs to slope required

All repairs adequate? YES NO Photograph of repair attached

B. WETLAND -

Is wetland condition acceptable? YES NO

(look for dumped debris or waste, stained soil, visible accumulation of mineral sediment in wetland, and/or evidence of unauthorized excavation)

If no, attach photograph

If no, describe unacceptable condition:

Location _____

Condition No sedimentation noted within wetland

Describe any repairs to wetland conducted since previous inspection:

All repairs adequate? YES NO Photograph of repair attached

Attachment W-2

Site Photographs

SITE PHOTOGRAPHS
May 2011 Wetland Inspection
Keith Middle School
New Bedford, Massachusetts



1) Slope in southern portion of wetland/cap edge looking south. Vegetation is well established.



2) Slope in southern portion of wetland/cap edge looking north.

SITE PHOTOGRAPHS
May 2011 Wetland Inspection
Keith Middle School
New Bedford, Massachusetts



3) Stand of Japanese knotweed along southern portion of wetland/cap slope.



4) Previously repaired portion of cap slope in southern portion of wetland/cap edge.

SITE PHOTOGRAPHS
May 2011 Wetland Inspection
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New Bedford, Massachusetts



5) Rip rap slope in central portion of site.



6) Stabilized slope along northern cap looking south.

SITE PHOTOGRAPHS
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7) Rip rap slope in central portion of cap slope. Note small stand of Japanese knotweed in center of photograph adjacent to standing water.



8) Rip rap at outfall in central portion of cap slope. Note mostly dead Japanese knotweed stand except for center foreground and left center rear of photograph.

SITE PHOTOGRAPHS
May 2011 Wetland Inspection
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New Bedford, Massachusetts



9) Northern portion of wetland/cap slope. Vegetation is well established.



10) Partially excavated burrow along northwestern portion of slope.