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December 4, 2013

## Letter Report

Mr. Kevin Kotelly  
U.S. Army Corps of Engineers, New England District  
Policy Analysis/Technical Support Branch, Regulatory Division  
696 Virginia Road  
Concord, MA 01742-2751

143688

Subject: USACOE General Permit #NAE 2008-3065  
Fall 2013 Wetland Inspection Report  
0 Brook Street, Holliston, MA

Dear Mr. Kotelly,

On behalf of Browning-Ferris Industries, Inc. (BFI), Brown and Caldwell (BC) is submitting this letter report documenting the Fall 2013 Semi-Annual Inspection of the above referenced wetlands in accordance with special condition #52 of the August 2011, Holliston Order of Conditions. This letter report has also been submitted to the Holliston Conservation Commission and the Massachusetts Department of Environmental Protection in Worcester, Massachusetts (Central Region).

## Investigation Methodology

On September 26, 2013, BC and Wetland Preservation Inc. (WPI) conducted a site inspection at the above referenced wetlands. The inspection included the vernal pool, bordering vegetated wetlands, intermittent stream, culverts, laydown area, and access way.

## Summary of Findings

Fall 2013 is the end of the second growing season since the wetland plantings were completed on June 6, 2012.

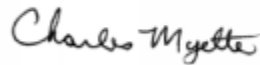
During the September 26, 2013 wetland inspection, WPI and BC observed that all restored upland and wetland areas were stable with both planted and natural vegetation healthy and viable. Vegetation within and around the vernal pool and the adjacent wetland areas were in good health with new growth and no signs of stress. Vegetation in the bordering wetlands and restored stream was in good health with the exception of some planted shrubs that continue to be browsed by deer or have died. The water level in the vernal pool was seasonally average to low, and water quality was clear. The natural hydraulic drainage features were functioning properly. WPI observed green frogs and water striders. In addition, the culverts remain clear, and the laydown areas and access way are stable and vegetating well. These findings and accompanying

photographs are summarized in WPI's inspection report dated November 18, 2013 and included in Attachment A.

WPI and BC will conduct the next inspection in Spring 2014 and one additional inspection semiannually in Fall 2014.

If you have any questions please feel free to contact us at (978) 794-0336.

Sincerely,  
**Brown and Caldwell**



Charles F. Myette, LSP  
Vice President



Jane Metzger, Geologist  
Project Manager

JLCM:cfm

cc: Mr. Joseph Montello, Republic  
Mr. Thomas A. Mackie, Mackie Shea O'Brien, PC  
Gail Magenau Hire, Mackie Shea O'Brien, PC

Attachments (1)

- Attachment A: WPI Site Inspection Report, November 18, 2013

*Limitations:*

*This document was prepared solely for Republic Services Procurement, Inc. in accordance with professional standards at the time the services were performed and in accordance with the contract between Republic Services Procurement, Inc. and Brown and Caldwell dated April 10, 2013. This document is governed by the specific scope of work authorized by Republic Services Procurement, Inc. ; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by Republic Services Procurement, Inc. and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.*



November 18, 2013

Mr. Charles Myette  
Brown & Caldwell  
1 Technology Drive  
Andover, MA 01810

Re: Wetland Replication Areas  
0 Brook Street  
Holliston, MA  
Wetland Mitigation  
DEP #185-0712; NHESP File No. 08-25195

Dear Mr. Myette:

In compliance with the Order of Conditions (DEP Wetlands File No. 185-0712), dated April 13, 2011, Condition Number 52, Wetlands Preservation, Inc. ("WPI") is submitting this report detailing the status of the vernal pool/wetland mitigation at the above referenced project. The site conditions recorded during the inspections included the following data: natural conditions, vegetation, vigor and viability of plantings, general stability of the site, signs of wildlife, and general observations.

The soil remediation was completed in the fall of 2011 as per the approved permits for the project. The intermittent stream and Bordering Vegetated Wetlands ("BVW") downstream of the vernal pool were restored to original grades in the fall of 2011. The intermittent stream was sown with a wetland seed mix and covered with erosion control matting. Planting of the vernal pool was initiated on May 10, 2012 with the installation of the shrub species. The planting was completed on June 6, 2012 with the installation of the aquatic species. Modifications to the planting were necessary due to the hydrology present in the vernal pool. Water levels were within the Mean High Water range as documented prior to the soil remediation effort. The water levels are controlled by the elevation of the outlet located at the southern end of the pool which drains south to the restored BVW area. These modifications were eventually approved by the Holliston Conservation Commission in the summer of 2012.

A visual survey was conducted on September 26<sup>th</sup> of the vernal pool, intermittent stream and BVW. Observations were made of the general flora and fauna. The shrub species planted in the vernal pool have new growth and include sand bar willow (*Salix exigua*) and buttonbush (*Cephalanthus occidentalis*). A large portion of the vernal pool has become vegetated with cattails (*Typha latifolia*) as depicted in the picture log attached. The aquatic species planted include white water lily (*Nymphaea odorata*), pond weed (*Potamogeton Nodas*), wild celery (*Vallisneria americana*), hard-stem bulrush (*Schoenoplectus acutus*) and pickerelweed (*Pontederia cordata*). The herbaceous species continue to propagate covering the majority of shallow water areas. The existing indigenous plant species including tree, shrub and herbaceous vegetation around the perimeter and on hummocks within the vernal pool were vigorous. All soil conditions were stable and continue to vegetate. Visual water quality in the vernal pool was clear, with the bottom observed in shallow water areas. Water levels at the time of the inspection were six inches below the natural control point. WPI observed green frogs and water striders in the vernal pool.

Mr. Charles Myette  
November 18, 2013  
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The majority of the shrub species planted along the intermittent stream and BVW have new growth, with the exception of several shrubs in the BVW that continue to be browsed or have died. The shrubs that have survived include red-osier dogwood (*Cornus sericea*), sweet gale (*Myrica gale*), arrow-wood (*Viburnum dentatum*), winterberry (*Ilex verticillata*) and wild raisin (*Viburnum cassinoides*). The herbaceous vegetation is growing in the intermittent stream and BVW. The areas were dry at the time of the inspection. The tree line in the upland along the southern edge of the BVW restored is healthy. The bittersweet present prior to the remediation work continues to climb into the canopy of all the trees.

In summary, the vernal pool, intermittent stream and the BVW restored are progressing well. The culverts, which were cleaned during the Release Abatement Measure, remain clear of sediment. The culvert areas, laydown area and access way are all stable and vegetating well. The silt fence was removed following the June 26<sup>th</sup> inspection. Monitoring will continue through the next growing season to ensure compliance with the approved permits.

Should you have any questions or require additional information regarding this report, please contact the undersigned.

Cordially,



Geoffrey C. Andrews  
Senior Wetland Scientist

cc: Jane Metzger  
Job File

3628.0 WRA Report 11.18.2013



0 Brook Street, Holliston, MA  
September 26, 2013

DEP File #185-0712  
NHESP File #08-25195



View of culvert #1 inlet to the vernal pool



View north from the outlet of the vernal pool



View northeast from the outlet of the vernal pool



View north of the vernal pool



View northwest of the vernal pool



View west from the outlet of the vernal pool



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September 26, 2013

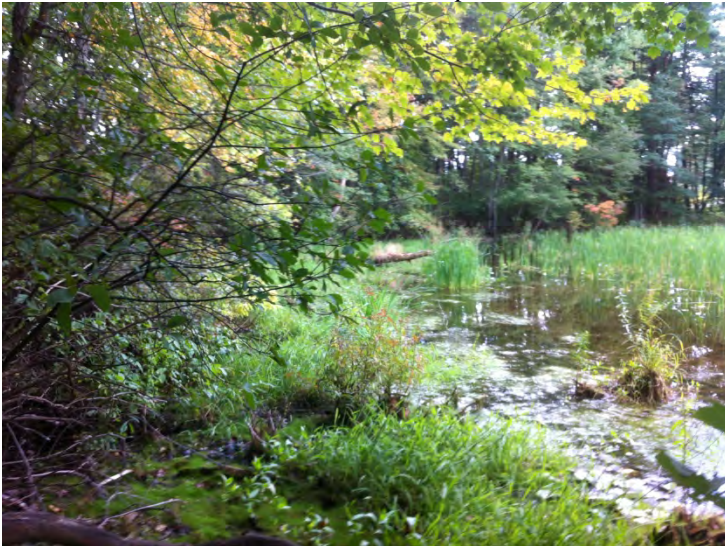
DEP File #185-0712  
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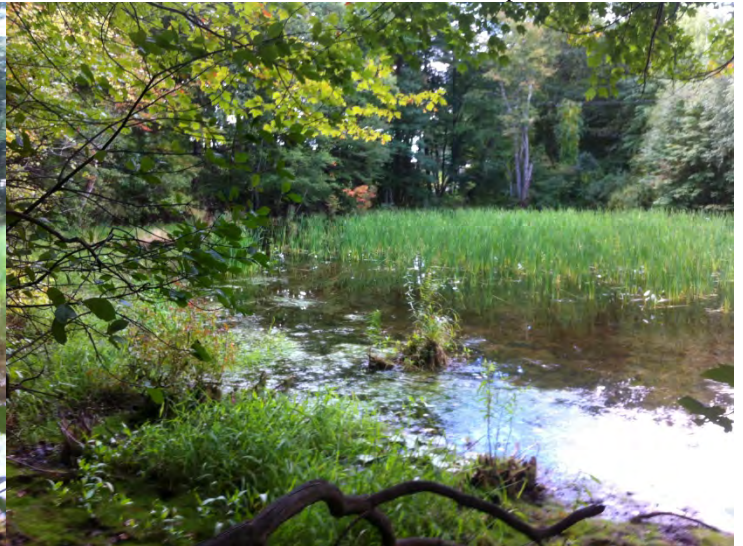
View west of the vernal pool



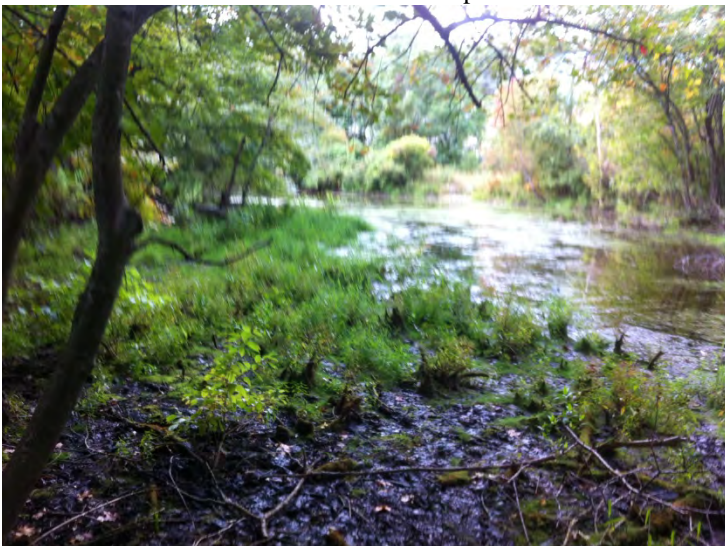
View north of the vernal pool



View south of the vernal pool



View south of the vernal pool



View southwest of the vernal pool



View northwest of the restored buffer zone



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September 26, 2013

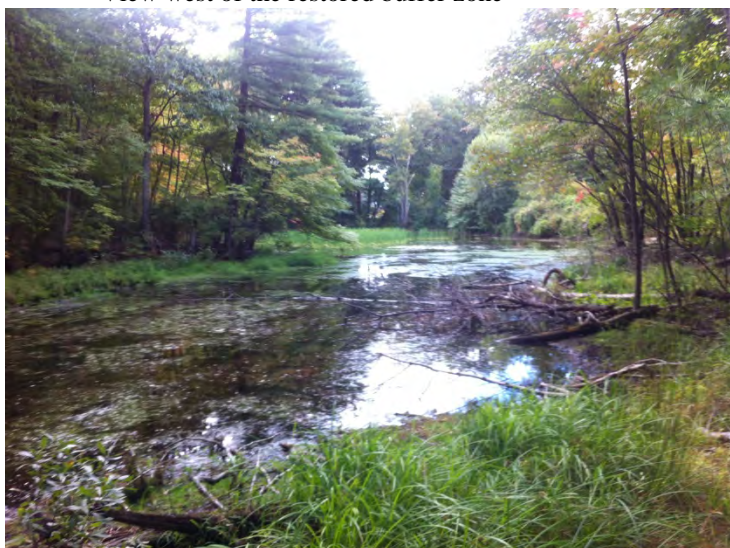
DEP File #185-0712  
NHESP File #08-25195



View west of the restored buffer zone



View east from the northern end of the vernal pool



View south of the vernal pool



View north of the rail trail



View west of the access way



View of culvert #3 just south of the access way.



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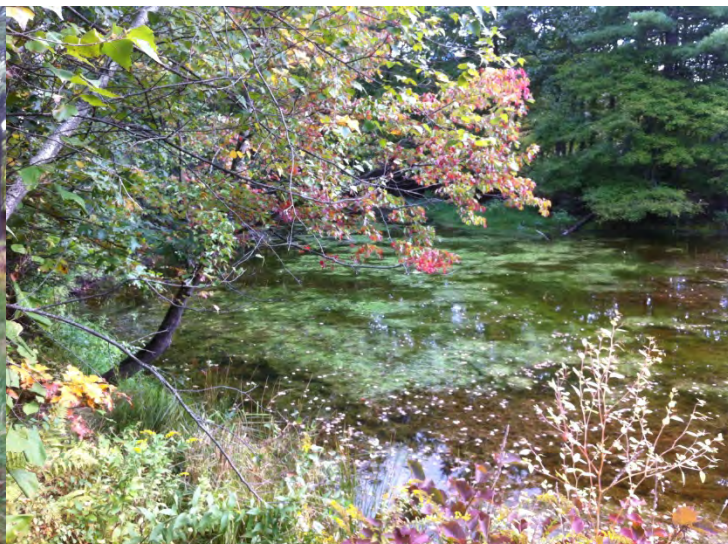
View east of culvert #3



View east of the restored buffer zone



View east of the restored buffer zone



View northeast from culvert #1



View east from culvert #1



View southeast from culvert #1



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September 26, 2013

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View north from the vernal pool outlet



View north of the rail trail from culvert #2



View north of the intermittent stream



View south to culvert #2



View west of the intermittent stream



View west of the BVW and intermittent stream



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View north of the BVW



View east of the BVW



View south of the BVW



View south of culvert #2



View east of the intermittent stream