

**MEMORANDUM**

**To: Michael Alvanos**  
**From: Jeffrey Severson, Consulting Ecologist**  
**Date: April 1, 2015**  
**Re: Wetland Evaluation for the Pine and Flynn Project**

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A small wetland is located on property owned by the City of Burlington to the north of the Pine and Flynn Project area. The wetland occupies a narrow swale along the margin toe of slope of the steep bank on the south side of Englesby Brook. The western end of the swale drains towards an eroded channel created by stormwater discharge routed towards Englesby Brook from an existing storm outfall. The location and configuration of the wetland nearest the Project location is shown on the Site Plan (Sheet S1) for the Pine and Flynn Project prepared by Summit Engineering.

The wetland boundaries nearest the project site were delineated on July 8, 2011 following the methodology outlined in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands and supplemental regional guidance issued by the U.S. Armyh Corps of Engineers. The wetland delineation was reviewed and approved by Julie Foley, District Wetlands Ecologist for the Vermont Department of Environmental Conservation, on July 12, 2011.

Wetlands in the Englesby Brook floodplain have been historically impacted and compromised over time by a variety of human activities and disturbances. The floodplain in the vicinity of the Project area has been fragmented and impacted by the construction of several man-made features, including Pine Street to the west, a recent stormwater retention basin to the east, and a stormwater outfall and associated discharge. The narrow wetland "sliver" in question comprises a relatively small percentage of the Englesby Brook floodplain. The Englesby Floodplain is characterized by thick sedimentary deposits upgradient from the Pine Street culvert, through which Englesby Brook has subsequently down cut.

Wetland functions were evaluated following the criteria outlined in the Vermont Wetland Rules. The functional criteria are outlined on the attached copy of the Vermont Wetland Evaluation Form. These functions include:

- Water Storage for Flood Water and Storm Runoff
- Surface and Ground Water Protection
- Fish Habitat
- Wildlife Habitat

Exemplary Wetland Natural Community  
Rare, Threatened, and Endangered Species Habitat  
Education and Research in Natural Science  
Recreational Value and Economic Benefits  
Open Space and Aesthetics  
Erosion Control through Binding and Stabilizing the Soil.

- Water Storage for Flood Water and Storm Runoff: The wetland is located in a relatively shallow, low volume swale that does not provide significant water storage capacity. The wetland drains westward towards an eroded channel created by stormwater discharge routed towards Englesby Brook from an existing storm outfall. The project will not alter the wetland's limited water storage capacity.
- Surface and Ground Water Protection: The wetland is not significant for surface water quality protection due to its relatively small size and volume, and its compromised outlet adjacent to an existing storm outfall. The bulk of surface water quality protection along this section of Englesby Brook is provided by the stormwater detention basin constructed upgradient from the wetland and project area.
- Fish Habitat : The wetland is not characterized by permanent standing water and does not provide fish habitat.
- Wildlife Habitat: The Englesby Brook corridor segment where the wetland is located has been fragmented by historical human activity and disturbance and does not provide significant habitat for any wetland-dependent wildlife species.
- Exemplary Wetland Natural Community: The wetland is not an example of an exemplary wetland natural community.
- Rare, Threatened, and Endangered Species Habitat: The wetland does not provide habitat for any known RT&E species.
- Education and Research in Natural Science: The wetland is located adjacent to Champlain Elementary School, however, it has no known history of use for education or research.
- Recreational Value and Economic Benefits: There is no evidence that the wetland is used for recreation and it provides no known economic benefits.
- Open Space and Aesthetics: The wetland is not readily observable by the public and is visually indistinguishable from the adjacent upland section of the Englesby floodplain.
- Erosion Control through Binding and Stabilizing the Soil: The wetland sliver is sparsely vegetated, with relatively few plant roots to bind and stabilize the soil. The wetland sliver is located along the floodplain margin and does not directly abut the stream.

The wetland was not found to be significant for any of the 10 wetland functions outlined in the Vermont Wetland Rules. Julie Foley, District Wetlands Ecologist for VT DEC, confirmed that the small floodplain wetlands proximal to the Project location are Class Three wetlands that are not significant for any of the wetland functions outlined in the Vermont Wetland Rules.

The project will not have an adverse impact on the wetland or any significant wetland functions:

1. The wetland is not significant for any wetland functions.
2. The project avoids the wetland entirely.
3. Work within the wooded corridor along Englesby Brook is restricted to the construction of a stormwater pipe and outfall designed to minimize the potential for runoff-related erosion.