



October 4, 2012

Mary Ann Conroy  
Commissioner of Public Works  
Town of Kittery  
200 Rogers Road  
Kittery, Maine 03904

Dear Ms. Conroy,

Jones Associates, Inc. was contracted to investigate wetlands prior to fill for the Town of Kittery in Kittery Maine. The area delineated is a portion of Tax Map 22, Lot 1. This lot is located at the intersection of Rogers Road (Route 236) and State Road (Route 1). The following narrative summarizes site conditions observed during site visits in October 2012.

The Town of Kittery is proposing a pedestrian walkway and low impact development (LID) stormwater treatment area at 180 State Road, a vacant parcel at the intersection of Rogers Road (Route 236) and State Road (Route 1). The project involves the installation of an underdrained soil filter, sediment forebay, and vegetated wet swale, as well as replacing an existing asphalt swale with a grassed swale, and grading for the future installation of a pedestrian walkway.

Wetland boundaries were identified based on the best professional judgment of predetermined topographic information and the presence of hydric soils (inundated or saturated soil conditions resulting from permanent or periodic inundation by ground water or surface water) found beneath the fill using U.S. Army Corps of Engineers (ACOE) Wetlands Delineation Manual (Environmental Laboratory 1987) and the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, October 2009.

Construction is currently underway and fill material was placed on a freshwater wetland impacting approximately 10,662 ft<sup>2</sup> of the 11,036 ft<sup>2</sup> of existing wetlands with the intention to impact an additional 374 ft<sup>2</sup>. Two of the three wetland indicators, hydrophytic vegetation (Hydrophytes: vegetation typically adapted for life in saturated

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soil conditions) and wetland hydrology (movement and distribution of water), have been compromised as a result of this action.

#### Existing Conditions:

This parcel is bounded to the north by a mall facility, to the west by State Road (Route 1), to the south by Rogers Road and to the east by Rogers Road Extension. The pre-fill site drainage was a slight easterly slope. Pooled water was observed on the western foot of the fill.

Prior to the activity the site was dominated by deciduous trees and shrubs but has been cleared of all vegetation. As a result all hydrophytic vegetation indicators that are used to delineated wetlands have been compromised. A fill material consisting of a stony clay loam has been spread over approximately 10,662 ft<sup>2</sup> of existing wetlands reaching up to 8 feet in thickness in certain locations. Five of the seven soil test pits showed evidence of past fill activities and soil alteration, likely from past development and road building/maintenance adjacent to the property. This lot receives stormwater runoff from impermeable surfaces from all adjacent properties.

#### Soils:

According to U.S. Department of Agriculture, Natural Resources Conservation Service, the soils series typed on the parcel include Scantic sandy loam and Urban land. Characteristics of each series are described below according to: Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture, Official Soil Series Descriptions.

Scantic sandy loam is a deep poorly drained soil found on outwash terraces. The parent material is fine glaciolacustrine and/or fine silty marine deposits. The hydraulic saturation conductivity is very low to moderately high (0.0-0.20 in/hr) and the depth to water table is 0 to 12 inches. This soil is found in the former depression.

Urban land is a disturbed soil that is moderately well drained. The typical depth to water table is between 24 to 72 inches. This soil is found adjacent to the traffic circle.

#### Wetland Characteristics

*The term "wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*

--Corps of Engineers Wetlands Delineation Manual (U.S. Army Corps of Engineers 1987)

Judging the filled wetlands based on field observation and aerial imagery found on Google Earth we have determined that it would be classified as PFO1Er: A forested palustrine system composed of a broad-leaved deciduous canopy that is seasonally

flooded/saturated. The soil test pits showed artificial substrate deposited throughout the site.

The wetland occupied the former geographic depression between the Route 1 traffic circle and Rogers Road extension. It was a small isolated wetland providing some sediment/toxicant retention, nutrient removal and floodflow alteration. The wetland appears to have been dominated by trees and shrubs with a large herbaceous component. We determined the top of the former soil profile by identifying where vegetation has been filled over. The soil hydric indicator is F2: loamy gleyed matrix. The soil showed a N hue with a 4 value with a 20% redox concentration. This wetland drains easterly into a drainage basin during large storm events.

Rare or Unusual Features

During our investigations of the above site, Jones Associates, Inc. did not observe any rare or unusual plant or animal species within the mapped wetland area. Portions of the area described in this report had been previously altered through clearing and excavation activities. The wetlands on this property were dominated by plant communities typical of this region of Maine.

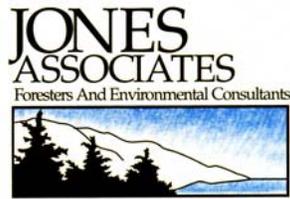
If you have any questions regarding this report, please feel free to contact our office.

Sincerely,



Rick Jones

Attachments: Wetland Delineation Checklist  
ACOE Data Sheets



### WETLAND DELINEATION CHECKLIST

|               |                 |          |      |          |      |
|---------------|-----------------|----------|------|----------|------|
| Job #:        | 12-062KI        | Map/Lot: | 22/1 | Acreage: | 0.60 |
| Client:       | Town of Kittery |          |      |          |      |
| Site Address: | 180 State Road  |          |      |          |      |

|                               |                          |
|-------------------------------|--------------------------|
| Wetland Scientist:            | Rick Jones and Kyle Ball |
| Date of Office Review:        | 10/4/12                  |
| Date(s) of Field Delineation: | 10/1/12                  |

#### Wetlands of Special Significance

| Yes | No |  |
|-----|----|--|
|     | x  | Does the on site or immediately adjacent wetland contain a mapped and numbered DWA?  |
|     | x  | Does the on site or immediately adjacent wetland contain an Inland Waterfowl Wading Bird Habitat?  |
|     | x  | Does the on site or immediately adjacent wetland contain a potential significant vernal pool?  |
|     | x  | Does the recent aerial photos of the on site or immediately adjacent wetland show or are there any open water or emergent wetlands with areas greater than 20,000 sq. ft.? |
|     | x  | Does the on site or immediately adjacent wetland contain a 100 year flood plain?   |
|     | x  | Does the on site or immediately adjacent wetland contain a S1 or S2 community?   |
|     | x  | Does the on site or immediately adjacent wetland contain a significant wildlife habitat?   |
|     | x  | Is the on site wetland within 250' of a coastal wetland?   |
|     | x  | Is the on site wetland within 250' of a great pond?  |
|     | x  | Does the site contain peatlands?   |

#### Stormwater Qualifications

|  |   |  |
|--|---|--|
|  | x | Is the site in the watershed of a Great Pond or Impaired stream? |
|  | x | Is the site in a lake watershed?                                 |
|  | x | Is the site in a watershed most at risk?                         |

Additional Comments: