



GOVE ENVIRONMENTAL SERVICES, INC

November 2, 2024

Chairman
Town of Exeter Planning Board
10 Front Street
Exeter, NH 03833

Subject: Wetland Documentation Report and Supporting Information
Mixed-Use Neighborhood Development
Tax Map 65 Lot 118
76 Portsmouth Avenue
Exeter, NH

Members of the Board:

This report is being submitted in connection with a proposal for an MUND within the C2 zoning district. The following sections provide an overview of the wetland resources associated with the property and evaluation of the proposed impacts within the context Section 9.1.6.B of the Exeter Zoning Ordinance (Conditional Use Criteria).

WETLAND DELINEATION

Resource areas on the property were delineated by others utilizing the following standards for delineation by the NH Department of Environmental Services, Wetlands Bureau:

1. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, (Version 2.0) January 2012, U.S. Army Corps of Engineers.
2. *Field Indicators of Hydric Soils in the United States, A Guide for Identifying and Delineating Hydric Soils*, Version 8.2. United States Department of Agriculture (2018).
3. *New England Hydric Soils Technical Committee. 2019 Version 4, Field Indicators for Identifying Hydric Soils in New England*. New England Interstate Water Pollution Control Commission, Lowell, MA.
4. *National Wetland Plant List*, Version 3.2 (2016).

Wetland boundaries were surveyed by Jones and Beach Engineers and are depicted on the plans submitted separately for the CUP application. The identified wetland areas are depicted on the attached figure and have been given unique designations for the purpose of discussion. Photos of the wetlands have also been included.

A Wetland

The A wetland is isolated and surrounded by development on two sides. The wetland is more scrub-shrub than forested and appears to have been impacted by cutting and grading in the past. The shrubs are mostly invasive Buckthorn and Raspberry. The herbaceous layer is sedges and golden rods. The few trees are grey birch. Few animal signs were observed, including rabbits and birds. The soils are poorly drained silts and clays.

B Wetland

The “B” wetland is the largest wetland on the site and has also been altered. A ditch was dug through the wetland, and has altered some of the adjacent hydrology. As with A wetland, it has a mix of scrub-shrub and forested, with invasive species present in the shrub layer. Buckthorn was prevalent. The herbaceous layer was dead due to frost, but some sensitive fern was present. The trees were dominantly red maple and grey birch. The ditching has led to erosion of the channel and removal of some of the flooding adjacent to the stream. Soils are a mix of very poorly drained and poorly drained silts and clays. Development that lies to the east of Wetland B has reduced the wildlife usage.

C Wetland

Wetland Area C is not actually a vegetated wetland. It is a created ditch which acts as a watercourse. The vegetation present is limited to nightshade, maple-leaved viburnum, and honeysuckle. The ditching has led to erosion at the base of the hill, where Wetland C enters Wetland B.

D Wetland

The “D” wetland is also not a vegetated wetland. It is a man-made drainage channel that qualifies as a watercourse. The water in the channel flows from a pipe that extends under Portsmouth Avenue. Rock, tires and other debris has been piled along the edges of the channel to stabilize the banks. The base of the channel appears to be a stony glacial till.

VERNAL POOLS

No vernal pool indicators were observed in the wetlands on the site.

FUNCTION & VALUE ASSESSMENT

A wetland function and value assessment was conducted using the US Army Corps Highway Methodology guidelines. Functions are self-sustaining properties of wetlands, which exist in the absence of human involvement. Values refers to the benefits gained by human society from a given wetland or ecosystem and their inherent functions. Functions and values identified as “primary” have been determined to be significant features of the wetland being evaluated. An important distinction is that the primary functions and values of a particular wetland does not necessarily indicate the wetland supports them at a significant *level* in comparison to other wetlands in the region or even near the site.

The Highway Methodology considers 13 functions and values:

1. **Groundwater recharge/discharge:** This function considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. Recharge should relate to the potential for the wetland to contribute water to an aquifer. Discharge should relate to the potential for the wetland to serve as an area where ground water can be discharged to the surface.
2. **Floodflow Alteration:** This function considers the effectiveness of the wetland in reducing flood damage by attenuation of floodwaters for prolonged periods following precipitation events.
3. **Fish and Shellfish Habitat:** This function considers the effectiveness of seasonal or permanent water bodies associated with the wetland in question for fish and shellfish habitat.
4. **Sediment/Toxicant/Pathogen Retention:** This function reduces or prevents degradation of water quality. It relates to the effectiveness of the wetland as a trap for sediments, toxicants or pathogens.



5. **Nutrient Removal/Retention/Transformation:** This function relates to the effectiveness of the wetland to prevent adverse effects of excess nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers or estuaries.
6. **Production Export:** This function relates to the effectiveness of the wetland to produce food or usable products for human, or other living organisms.
7. **Sediment/Shoreline Stabilization:** This function relates to the effectiveness of a wetland to stabilize stream banks and shorelines against erosion.
8. **Wildlife Habitat:** This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge. Both resident and or migrating species must be considered.
9. **Recreation:** This value considers the effectiveness of the wetland and associated watercourses to provide recreational opportunities such as canoeing, boating, fishing, hunting and other active or passive recreational activities. Consumptive opportunities consume or diminish the plants, animals or other resources that are intrinsic to the wetland, whereas non-consumptive opportunities do not.
10. **Educational/Scientific Value:** This value considers the effectiveness of the wetland as a site for an “outdoor classroom” or as a location for scientific study or research.
11. **Uniqueness/Heritage:** This value relates to the effectiveness of the wetland or its associated water bodies to produce certain special values. Special values may include such things as archeological sites, unusual aesthetic quality, historical events, or unique plants, animals, or geological features.
12. **Visual Quality/Aesthetics:** This value relates to the visual and aesthetic qualities of the wetland.
13. **Threatened or Endangered Species Habitat:** This value relates to the effectiveness of the wetland or associated water bodies to support threatened or endangered species.

The primary function supported by all the wetlands at this site is flood flow alteration. The wetlands either retain water – as does A Wetland – or conveys water – as does Wetlands B, C, and D. The most limited of the wetlands is C, which provides limited seasonal drainage.

Wetland B has in addition Sediment Retention and Transformation, Nutrient Retention, Production Export, and Wildlife habitat.

Wetland A has similar functions as B, but lacks the Production Export (too many invasive species) and Wildlife Habitat (too much development around it).

Wetlands C and D (which are actually just man-made watercourses) have no other functions.

RELATION TO THE PROPOSED DEVELOPMENT

Conditional Use Permit (CUP) is being sought for proposed impacts within the Wetlands Conservation Overlay Districts. The following section provide an analysis of these impacts in the context of the CUP criteria, Article 9.1.6.B.3 (Wetlands) Town of Exeter Zoning Ordinance.

Wetland Conservation District CUP Criteria--Article 9.1.6.B.3—A wetland scientist has provided an impact evaluation that includes the “functions and values” of the wetland(s), an assessment of the potential project-related impacts and

concluded to the extent feasible, the proposed impact is not detrimental to the value and function of the wetland(s) or the greater hydrologic system.

A functional evaluation of the wetlands is provided in the previous sections of this letter. The primary function of all the resource areas on the site was determined to be floodflow alteration. With no direct wetland impacts, the floodflow function will not be impacted by removal or constriction.

The proposed buffer impacts will have no appreciable impact on wetland function or the overall hydrologic system for several reasons. The wildlife habitat function of Wetland B has already been limited based upon the impact of the existing development that lies to the east of the wetland. The proposed development will not cut off any observed wildlife corridor. The functions of Sediment Toxicant Retention, Production Export, and Nutrient Retention will also be retained in Wetlands B and A (minus Production Export) due to no direct wetland impact.

Wetlands C and D have no other functions.

It is my determination that the proposed buffer impacts will have no detrimental actions on the value or functions of the wetlands or hydrologic system,

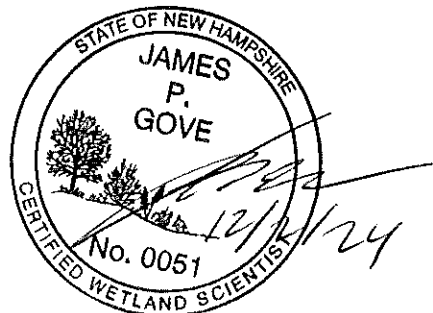
This concludes the wetland delineation report for this site. If I can be of further assistance, please feel free to contact me at (603) 778-0644.

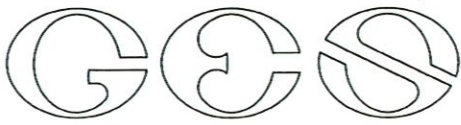
Sincerely,



James Gove, NHCWS, NHCSS
Gove Environmental Services, Inc.

Enc: Wetland Areas Sketch
Photographs





GOVE ENVIRONMENTAL SERVICES, INC.

Photos and notes on 10-29-2024 by JP Gove.
76 Portsmouth Ave., Exeter, NH
Wetland A



Buckthorn, Raspberry, Sedges, Golden Rods, Grey Birch.
Rabbits and birds.
Herbaceous layer dead or covered with new leaves.
Isolated wetland.

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Wetland B



Buckthorn, Grey Birch, Red Maple, Herbaceous vegetation dead or covered with leaves.
Perennial Stream

Wetland C



Nightshade, Maple-leaf Viburnum, Honeysuckle, Herbaceous vegetation dead or covered with leaves.

Man-made ditch.

Wetland D



Rock-cobble bottomed stream – perennial flow.
Man-made ditch, Note tires used to stabilize the slope.