

NEW ENGLAND ENVIRONMENTAL SERVICES

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<u>Wetland Report</u> 121 Upper Pattagansett Road East Lyme, Connecticut

I delineated the wetland and watercourse boundary on the land. There are two wetlands present on the land. Wetland 1 is adjacent to Upper Pattagansett Road. The soil type in the wetland is Leicester. Leicester is a poorly drained soil formed in glacial outwash. The topsoil and subsoil has a fine sandy loam texture. The substratum (unweathered glacial outwash) has a gravelly loamy sand texture. The wetland is lightly wooded. The tree specie in the wetland is Red Maple. The shrub species include Japanese Barberry, Mountain Laurel, Ironwood, and Witch Hazel. The herbaceous plant species include New York Fern, Sensitive Fern, Broom Sedge, White Wood Aster, and Green Briar. The vine species include Poison Ivy and Virginia Creeper. The vegetation in the uplands around the wetland are White Oak, Red Maple, Hickory, Black Birch, Mountain Laurel, Witch Hazel, Japanese Barberry, Maple Leaf Viburnum, New York Fern, Christmas Fern, Hay Scented Fern, White Wood Aster, and Green Briar.

The wetland does not contain any vernal pools and does not provide habitat for wetland dependent animal species. The wetland has a low function and value for wildlife habitat. Surface water generally only occurs at the surface after rain events. The wetland has a high infiltration rate. The wetland has a high value for sediment trapping due to the culvert at Upper Pattagansett Road. Sand and silt sediment is several inches deep in portions of the wetlands. The wetland has a moderate function and value for pollutant renovation and flood storage due to a culvert pipe under Upper Pattagansett Road which can hold back water during heavy storm events.

Wetland 2 occurs along the eastern property line. The soil type in the wetland is Leicester, which has a sandy loam topsoil and subsoil. The substratum has a gravelly sandy loam texture. There is an intermittent watercourse in the wetland which flows in the southerly direction. The wetland is wooded. The tree species in the wetland are Red Maple, Red Oak, and Yellow Birch. The shrub species are Mountain Laurel, Japanese Barberry, Pepperbush, and Highbush Blueberry. The herbaceous plant species include Cinnamon Fern, Violet, New York Fern, and Sensitive Fern. The wetland does not contain any vernal pools. The wetland has a moderate function and value for wildlife habitat. The lower section of the wetland provides habitat for spring peepers and the American toad. The wetland has a moderate function and value for sediment trapping and pollutant renovation due to the dense vegetative cover. The wetland has a low function and value for flood storage due to the slope of the land.

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The proposal is to construct 8 residential houses. A driveway is proposed 50 feet west of Wetland 1. The septic systems for the three houses that the driveway serves are 100 to 200 feet from the wetlands.

The house on Lot 58 is 150 feet from the wetland. The house on Lot 57 is 280 feet from the wetland. The house on Lot 56 is 200 feet from the wetland. The septic system on Lot 54 is 240 feet from the wetland and the house is 270 feet from the wetland. The closest house to Wetland 2 is 430 feet. Wetland 2 is on the eastern side of the drainage divide.

I believe with the rain gardens and BMP's being employed, there will not be an impact on the function and values of the wetland.

Prepared by:

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October 21, 2021