



Biodiversity Studies • Wetland Delineation & Assessment • Habitat Management • GIS Mapping • Permitting • Forestry

March 28, 2022

Mr. James Cassidy, P.E.
Hallisey, Pearson & Cassidy Engineering Assoc., Inc.
630 Main Street, Suite #1A
Cromwell, Connecticut 06416

RE: Wetland Delineation, Evergreen Walk, South Windsor

Mr. Cassidy,

At your request, I conducted an inspection on a portion of the above-referenced property on March 15, 2022. The purpose of the inspection was to delineate Connecticut jurisdictional wetlands and watercourses. The inspection was conducted by a soil scientist according to the requirements of the Connecticut Inland Wetlands and Watercourses Act (P.A. 155).

Inland wetlands include soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey as may be amended from time to time, of the National Resources Conservation Service (NRCS). Watercourses means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent. Intermittent watercourses shall be delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) Evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation.

Wetlands were delineated by examining the upper 20" of the soil profile with a spade and auger. Those areas meeting the requirements noted above were marked with pink and blue flagging tape and numbered with the following sequence: WF A-1 – 64; WF B1/40 (closed); WF B79/144 (closed); and WF C-1 – 93 (refer to Wetland Delineation Sketch Map, attached).

The A series wetland is located along the north side of the site. This wetland is seasonally saturated and includes forested, scrub-shrub, and emergent cover types. Forested areas were undisturbed and characterized by mature hardwood forest. Scrub-shrub and emergent wetland areas are located downgradient of a sewer line which appears to be altering groundwater movement based on active exfiltration which was visible above the sewer line.

The B series wetlands include two man-made detention basins/stormwater ponds. WF B-1/B-40 delineates a large basin on the far west side of the site. This basin appears to be permanently ponded based on the presence of fish (largemouth bass) which were observed during the

delineation. This basin discharges to the A series wetland to the north. This basin also receives stormwater and groundwater inputs via a man-made swale which drains to this feature from the east. This feature was not delineated at the request of HPC per discussions with the Town of South Windsor.

WF B79/144 delineates a linear basin, also appearing to be permanently ponded, on the south side of the site and existing developed area. This basin discharges to the south to the C series wetland.

The C series wetland is a predominantly seasonally saturated forested wetland, situated within a low-lying area along the southern edge of the site and bordering an unnamed tributary to Plum Gulley Brook which is located west of the site. Portions of the wetland boundary proximate to an outfall from the adjacent stormwater basin are characterized by dense common reed. A historic impoundment was observed within the perennial watercourse to the south of the stormwater basin.

Digitally available updated soil survey information was obtained from the Natural Resources Conservation Service (refer to NRCS Soil Map, attached). The following is a description of wetland and upland soil types.

Wetland Soil Types

Wetland soils are comprised of Scitico, Shaker, and Maybid soils and Saco silt loam. The Scitico series consists of very deep, poorly drained soils formed in silty and clayey sediments. They are nearly level to very gently sloping soils in low-lying positions of glaciolacustrine and marine terraces. Scitico soils have a water table at or near the surface much of the year.

The Shaker series consists of very deep, poorly drained soils formed in loamy over clayey sediments. They are nearly level to gently sloping soils in low-lying positions on glaciolacustrine and marine terraces. Shaker soils have a water table at or near the surface much of the year. Typically, these soils are in low-lying broad, flat, or slightly concave areas.

The Maybid series consists of very deep, very poorly drained soils. They are nearly level or level soils on lowlands. Slope ranges from 0 to 3 percent. The soils formed in water deposited material of marine or lacustrine origin. Internal drainage is very slow. Permeability is slow or very slow. The soil is intermittently ponded or has very slow runoff.

The Saco series consists of very deep, very poorly drained soils formed in silty alluvial deposits. They are nearly level soils on flood plains, subject to frequent flooding. Depth to the coarse-textured substratum layers is more than 40 inches. The surface soil is very dark gray to black silt loam, underlain directly by a mottled, gray to grayish brown substratum. Some pedons have a mucky surface up to 5 inches thick. The soils formed in depressions in recent silty alluvium. In places water is ponded on the surface from late fall through early spring. These soils flood in the spring and after periods of heavy rainfall.

Upland Soil Types

The non-wetland soils were not examined in detail, except as was necessary to identify the wetland boundary. They generally consist of ElmrIDGE fine sandy loam and Udorthents. The ElmrIDGE series consists of very deep, moderately-well drained soils formed in loamy over clayey sediments. They are nearly level to moderately steep soils on glacial lacustrine and marine terraces, and on lake plains. Thickness of the solum and depth to the underlying clayey material range from 18 to 40 inches. The ElmrIDGE soils have a seasonal high water table.

Udorthents is a miscellaneous land type used to denote moderately well to excessively drained earthen material which has been so disturbed by cutting, filling, or grading that the original soil profile can no longer be discerned.

If you have any questions regarding these findings, please feel free to contact me.

Respectfully submitted,



Matthew Davison, PWS, PSS, CPESC, CT Forester

Enclosures: Site Photographs
Soil Map
Wetland Delineation Sketch Map

SITE PHOTOGRAPHS
EVERGREEN WALK, SOUTH WINDSOR



Photo 1: View of sewer line with A series wetland to the left (looking east). Drainage is from right to left.



Photo 2: View of outlet control structure in B series wetland (B1/40), a stormwater basin/pond.

SITE PHOTOGRAPHS
EVERGREEN WALK, SOUTH WINDSOR



Photo 3: View of B series wetland (B79/144), a stormwater basin/pond, looking west



Photo 4: View of C series wetland from WF C-54 looking northwest

Soil Map—State of Connecticut



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut

Survey Area Data: Version 21, Sep 7, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 15, 2019—Aug 29, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
9	Scitico, Shaker, and Maybid soils	5.1	4.9%
28A	Elmridge fine sandy loam, 0 to 3 percent slopes	27.8	26.7%
28B	Elmridge fine sandy loam, 3 to 8 percent slopes	14.2	13.7%
29A	Agawam fine sandy loam, 0 to 3 percent slopes	4.8	4.6%
29B	Agawam fine sandy loam, 3 to 8 percent slopes	20.2	19.4%
35B	Penwood loamy sand, 3 to 8 percent slopes	4.0	3.8%
36C	Windsor loamy sand, 8 to 15 percent slopes	4.8	4.6%
37C	Manchester gravelly sandy loam, 3 to 15 percent slopes	7.4	7.1%
108	Saco silt loam	8.6	8.3%
308	Udorthents, smoothed	0.2	0.2%
701B	Ninigret fine sandy loam, 3 to 8 percent slopes	3.2	3.1%
704A	Enfield silt loam, 0 to 3 percent slopes	1.9	1.8%
704B	Enfield silt loam, 3 to 8 percent slopes	1.9	1.9%
W	Water	0.0	0.0%
Totals for Area of Interest		104.3	100.0%

