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## Soil Report

Date: June 4, 2024

By: Steven Danzer Ph.D.

- Soil Scientist, Senior Professional Wetland Scientist, Arborist
  - Nationally certified by the Soil Science Society of America (#353463).
  - Registered with the Society of Soil Scientists of Southern New England.
  - Certified PWS #1321 by the Society of Wetland Scientists
  - Certified Arborist by the International Society of Arboriculture (ISA) NE-7409A
  - CT Licensed Arborist DEEP S-5639
- Ph.D. in Renewable Natural Resource Studies.

Project: 293 Rocky Rapids Road, Stamford

### INTRODUCTION

A wetlands investigation was performed on the above-referenced property to locate and identify any inland wetland soils or watercourses.

The purpose of this report is to document that the field work for the site investigation was conducted using professionally accepted methods and procedures. This report is intended for submission by the owner(s) of the property or their designated agent to the local municipal regulatory agency.

### DEFINITIONS

The Connecticut General Statutes Ch. 440 Sections 22a-36 and 22a-45 (as amended) define **inland wetlands** as land, including submerged land (except for tidal wetlands) which consist of any of the soil types designated by the National Cooperative Soil Survey as *poorly drained*, *very poorly drained*, *floodplain*, or *alluvial*.

**Poorly drained** and **very poorly drained** are soil drainage classes that are defined by specific technical criteria in the Soil Survey Manual, Ch. 3 of the USDA Natural Resources Conservation Service. Generally speaking, *poorly drained soils* are wet at shallow depths periodically during the growing season, or remain wet for long periods, while in *very poorly drained soils* water is removed from the soil so slowly that free water remains at or very near the ground surface during much of the growing season.

**Floodplain** refers to the land bordering a stream or river that is subject to flood stage inundation, and **alluvial** refers to soil deposited by concentrated running water (Soil Survey Manual, Part 629).

**Watercourses** are defined by the Connecticut General Statutes Ch. 440 Sections 22a-36 and 22a-45 (as amended) to include rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private. **Intermittent watercourses** are a type of watercourse that typically do not flow year-round, and are specifically defined within the CT statutes by the presence of 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;
- c) The presence of hydrophytic vegetation.

**Uplands** are land areas that are not inland wetlands, watercourses, or subject to tides.

The **soil series** is a soil label that refers to the lowest category of the National Soil Classification System. It is used as a specification for identifying and classifying soils within a soil map unit. The descriptions are standardized by the USDA-NRCS, and contain soil properties that define and distinguish them from the other soil series.

## METHODS

Wetland or watercourse boundaries present within the survey area were investigated pursuant to the definitions provided by the Connecticut General Statutes (CGS Ch. 440 Sections 22a-36 and 22a-45) as amended. All soils were sampled to a depth of at least 20 inches with spade and augur unless noted otherwise during a field investigation conducted on June 3, 2024. Soils were classified according to the nomenclature presented within the NRCS Web Soil Survey, with additional reference to the National Cooperative Soil Survey, and the local Soil Survey. The wetland boundaries were marked with flagging tape and/or stakes (Wetland Flags 1-30) and a sketch map prepared (attached).

## SITE DESCRIPTION AND DISCUSSION

The roughly 1.7 acre site is located on the north side of Rocky Rapids Road, Stamford, CT. Land use is residential. The site is located within the DEEP Basin #7406-00, within the East Branch Mianus River watershed. Wetland resources on site include a large pond shared by several adjacent properties, shorefront, lawned wetlands gently sloping down to the shorefront, and three segments of an intermittent watercourse draining northerly from Rocky Rapids Road down to the waterbody.

## WETLAND AND WATERCOURSE SOIL MAPPING UNITS

### (3) Ridgebury, Leicester, and Whitman soils extremely stony / Aquents (dredge spoils)

*The Ridgebury series* consists of very deep, somewhat poorly and poorly drained soils formed in till derived mainly from granite, gneiss and schist. They are commonly shallow to a densic contact. They are nearly level to gently sloping soils in low areas in uplands. Slope ranges from 0 to 15 percent.

Saturated hydraulic conductivity ranges from moderately low to high in the solum and very low to moderately low in the substratum. Mean annual temperature is about 49 degrees F. and the mean annual precipitation is about 45 inches. TAXONOMIC CLASS: Loamy, mixed, active, acid, mesic, shallow Aeric Endoaquepts

*The Leicester series* consists of very deep, poorly drained loamy soils formed in friable till. They are nearly level or gently sloping soils in drainageways and low-lying positions on hills. Slope ranges from 0 to 8 percent. Permeability is moderate or moderately rapid in the surface layer and subsoil and moderate to rapid in the substratum. Mean annual temperature is about 50 degrees F., and mean annual precipitation is about 47 inches. TAXONOMIC CLASS: Coarse-loamy, mixed, active, acid, mesic Aeric Endoaquepts

*The Whitman series* consists of very deep, very poorly drained soils formed in lodgement till derived mainly from granite, gneiss, and schist. They are shallow to a densic contact. These soils are nearly level or gently sloping soils in depressions and drainageways on uplands. Saturated hydraulic conductivity is moderately high or high in the solum and very low through moderately high in the substratum. Mean annual precipitation is about 45 inches (1143 millimeters) and mean annual temperature is about 49 degrees F. (9 degrees C.). TAXONOMIC CLASS: Loamy, mixed, superactive, acid, mesic, shallow Typic Humaquepts

## UPLAND (NON WETLAND) SOIL MAPPING UNITS

### (61C) Canton and Charlton soils, 8 to 15 percent slopes, very stony

*The Canton series* consists of very deep, well drained soils formed in a loamy mantle underlain by sandy till derived from parent materials that are very low in iron sulfides. They are on nearly level through very steep glaciated plains, hills, and ridges. Slope ranges from 0 through 35 percent. Saturated hydraulic conductivity is high in the solum and high or very high in the substratum. The mean annual temperature is about 46 degrees F. (10 degrees C.) and the annual precipitation is about 44 inches (1194 millimeters). TAXONOMIC CLASS: Coarse-loamy over sandy or sandy-skeletal, mixed, semiactive, mesic Typic Dystrudepts

*The Charlton series* consists of very deep, well drained loamy soils formed in till derived from parent materials that are very low in iron sulfides. They are nearly level to very steep soils on till plains and hills. Slope ranges from 0 to 50 percent. Saturated hydraulic conductivity is moderately high or high. Mean annual temperature is about 10 degrees C and mean annual precipitation is about 1194 mm. TAXONOMIC CLASS: Coarse-loamy, mixed, active, mesic Typic Dystrudepts

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### LIMITATIONS

All observations and conclusions within this report are opinion and were based upon the field conditions at time of investigation and best professional judgment. Field conditions may change over time. All wetland boundary lines established by the undersigned Soil Scientist are subject to change until officially adopted by the appropriate local, state and federal regulatory agencies.

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## CERTIFICATION

Signed,   
Steven Danzer Ph.D., Certified Professional Soil Scientist (CPSS #353463)





# 293 Rocky Rapids Road, Stamford



Sketch Map - not to scale  
See report for methods  
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0 25 50 100 Feet  
1 inch = 50 feet

