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WETLAND BOUNDARIES › POND & LAKE MANAGEMENT › CONSTRUCTION FEASIBILITY CONSULTATIONS › ENVIRONMENTAL STUDIES

Soil Report

Date: April 3, 2017

By: Steven Danzer Ph.D.

- Soil Scientist – Certified Nationally by the Soil Science Society of America (#353463).
– Registered with the Society of Soil Scientists of Southern New England.
- Professional Wetland Scientist - PWS #1321, Society of Wetland Scientists.
- Arborist - CT DEEP License S-5639.

- Ph.D. - Renewable Natural Resource Studies.

Re: 65 Stanton Lane, Stamford, CT

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 April 2, 2017. 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 Fairfield County Soil Survey.

The wetland boundaries were marked on site with orange flagging tape and/or stakes (Wetland Flags 1-17), and a sketch map prepared (see attached).

SITE DESCRIPTION AND DISCUSSION

The roughly 0.6 acre site is located at the north side of Stanton Lane, between Skyview Drive and Westwood Road, Stamford, CT. Land-use is residential. The site is located within the DEEP local watershed basin # 7406 in the Rippowam River Watershed. However, it is questionable whether the terrain does in fact eventually flows towards the river or whether it is internally drained between the rear of the residences of Stanton Lane, Westwood Road, and Skyview Drive.

The site is developed with residence, driveway, and a yard. Areas north and west of the residence and yard are forested. Site topography generally slopes gently down to the north towards the forested wetland area located between the rear yards of the neighboring residences. The residence on site was constructed in 1958, well before adoption of the wetland regulations of the City of Stamford, and it appears that the landscape in proximity of the wetlands was altered during site development.

Vegetation was still in winter dormancy. Identifiable vegetation within the wetland area included Red maple, Black birch, Ash, Shagbark Hickory, Euonymus, and Japanese knotweed.

DATA and RESULTS

FIELD CONDITIONS: Soil wet. Temperature: 50 degrees F. Last significant precipitation event: rain - within 2 days.

WETLAND and WATERCOURSE SOIL MAPPING UNITS

(3) Ridgebury, Leicester, and Whitman soils, extremely stony

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

(51B) Sutton fine sandy loam, 2 to 8 percent slopes, very stony

The Sutton series consists of very deep, moderately well drained loamy soils formed in till. They are nearly level to strongly sloping soils on plains, low ridges, and hills, typically on lower slopes and in slight depressions. Slope ranges from 0 to 15 percent. Saturated hydraulic conductivity is moderately high or high throughout. Mean annual temperature is about 10 degrees Celsius and mean annual precipitation is about 1194 millimeters.

TAXONOMIC CLASS: Coarse-loamy, mixed, active, mesic Aquic Dystrudepts

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.

CERTIFICATION

Signed,



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



Certified Professional
Soil Scientist

65 Stanton Ln, Stamford



SKETCH MAP
NOT TO SCALE
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See Soils Report for Methods

Date: 4/3/2017

