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## **Wetland Investigation**

### **Vicinity of the 25 Talbot Lane Site Plan, South Windsor**

Date: August 25, 2021

By: Steven Danzer Ph.D.

- Soil Scientist, Senior Professional Wetland Scientist, Arborist
  - Nationally certified by the Soil Science Society of America (#353463).
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  - 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.

### **SUMMARY**

A wetlands investigation was performed along several neighboring properties adjacent to the 25 Talbot Lane Site Plan (Application 21-36P) being reviewed by the Inland Wetlands Agency in South Windsor, Connecticut.

The purpose of this investigation was to locate and identify any inland wetland soils or watercourses that may extend into the 25 Talbot Lane site, which also includes properties located at 5 Talbot Lane and 475 and 551 Governors Highway. Several areas within the site itself were also viewed from the public roadway, and assessed for the likelihood of containing wetlands, pending field sampling.

Wetland soils were confirmed within the backyards of 74 and 66 Edgewood Drive, adjacent to the property line with 551 Governors Highway, and near the property boundary of the Town owned open space at 75 Cody Circle. Based on this finding, it is reasonable to assume that wetland soils may also be found on the 551 Governors Highway side of the property boundary within proximity to the areas sampled.

Furthermore, two areas within the 551 Governors Highway portion of the site plan, in the region directly south of Governors Highway, were viewed from the public right-of-way. Both areas deserve further investigation by a Soil Scientist.

The first of these areas was located across the road from 550 Governors Highway. The wetlands may extend slightly more to the west than depicted on the survey provided by the Applicant.

The second area is located roughly 265 feet east of the intersection of Talbot Lane and Governors Highway. This area was indicated as wetland based upon a previous 1994 survey/topographic plan prepared by Design Professionals, Inc., but not depicted as wetlands in the current 2021 Application.

## INTRODUCTION

A wetlands investigation was performed along several neighboring properties adjacent to the 25 Talbot Lane Site Plan (Application 21-36P) under review by the Inland Wetlands Agency, in South Windsor, Connecticut. The purpose of the investigation was to locate and identify any inland wetland soils or watercourses that may extend into the site.

In addition to the adjacent properties, several areas within the 25 Talbot Lane site plan property itself were also viewed from the public roadway, and then assessed for the likelihood of containing wetlands, pending field sampling by a Soil Scientist.

The purpose of this report is to document that the field work (i.e. sampling) 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**

Materials reviewed included the 2021 site plan for proposed activities, prepared by Design Professionals, Inc for the 25 Talbot Lane site, currently on file with the South Windsor Inland Wetland Agency. These materials included but were not limited to the wetland boundary depicted on Sheets V-1 and V-2 titled “Property and Topographic Survey”.

Also provided to me was a photocopy of a previous 1994 survey with wetland boundaries of properties located at 5 Talbot Lane, 475 and 551 Governors Highway, prepared by Design Professionals, Inc, titled “Topographic Plan”. A copy is attached at the end of this report. The wetlands on this survey were delineated by John Ianni, Soil Scientist as per the note on the map.

The NRCS Web Soil Survey map for the area was also examined. This map is publically accessible through the internet, and was also included in the Application Materials on file with the Town.

Field work was conducted on 8/20/21.

The three areas of concern (the adjacent properties that were sampled, and the two observed areas within the interior of the site) are sketched on aerial photo at the end of this report.

## **RESULTS AND DISCUSSION**

### **AREAS OF CONCERN**

#### **1. 74 and 66 Edgewood Drive:**

Wetland soils were confirmed within the backyards of 74 and 66 Edgewood Drive, adjacent to the common property line with the 551 Governors Highway portion of the site. This area was also located near the property boundary shared by the Town owned open space at 75 Cody Circle. Wetland soils were best characterized as within the Walpole sandy loam mapping unit. A similar wetland soil mapping unit is depicted on the NRCS Web Soil Survey map, (a map often used to understand potential soil units within proximity of sampling areas, for general planning purposes pending field verification).

Based on this finding, it is reasonable to assume that wetland soils may also extend or be found on the 551 Governors Highway side of the property boundary, within proximity of the areas sampled.

The 2021 site plan prepared by the Applicant does not depict any wetlands in this area. However it was noted that the surface micro-topography within this region is highly variable, and that the landscape is covered with herbaceous and woody ground cover. Depending upon where the previous soil scientist sampled for the 2021 site plan, it is plausible that wetland areas were missed.

The 1994 survey does depict wetlands located within the adjacent 551 Governors Highway region extending outward to the common property boundary with 74 and 66 Edgewood Drive. The NRCS soil map (not field verified, for general planning purposes) indicates wetlands in this area as well.

- It is recommended that the 551 Governors Highway side of the property line is re-examined by a Soil Scientist as it is reasonable to believe that wetlands may directly extend over the property border into the 551 Governors Highway region, or, given the variable micro-topography, be located within proximity within the interior of the 551 Governors Highway region.
- Regardless, the upland review area on the current 2021 site plan should now be adjusted to account for the wetlands now disclosed on the 74 and 66 Edgewood Drive properties. Failure to do so will result in the Application being incomplete.

#### **2. Within the 551 Governors Highway region, across the road from 550 Governors Highway**

This area was not sampled directly as permission was not obtained to access the Applicant's site. As such, the area was viewed from the right-of-way along Governors Highway. Based upon visual observation of surface topography, it appears that the wetlands may extend slightly more to the west than depicted on the 2021 survey provided by the Applicant. This area is also within the wetlands

depicted on the 1994 survey, and within a wetland mapping unit within the NRCS soil map (not field verified, for general planning purposes).

- It is recommended that this area be re-examined by a Soil Scientist and the site plan be revised if necessary.

### **3. Within the 5 Talbot Lane / 475 Governors Highway region, roughly 265 feet east of the intersection of Talbot Lane and Governors Highway**

This area was not sampled directly as permission was not obtained to access the Applicant's site. The area was viewed from the right-of-way along Governors Highway. The area is indicated as wetland based upon a previous 1994 survey/topographic plan by Design Professionals, Inc., and within a wetland mapping unit within the NRCS soil map (not field verified, for general planning purposes).

This area was not depicted as wetlands in the current Application.

- It is recommended that this area be re-examined by a Soil Scientist and the site plan be revised if necessary.

## **FINAL COMMENTS**

When comparing the previous 1994 survey and the 2021 site plan survey, there is a substantial discrepancy regarding the amount of wetlands depicted. Roughly 14 acres of wetlands from the 1994 survey are missing from the 2021 survey.

Wetland boundaries due change over time, in my experience, for a variety of reasons which may include differences in professional opinion because of subtle differences in survey methods, changes in site characteristics such as changes in hydrology and landscape alterations, and sometimes because of survey error. None of those reasons appear to be substantial enough to account for a wetland loss of this magnitude.

The Applicant owes an explanation to the Wetland Agency as to the substantial discrepancy between the two surveys, and/or a credible re-delineation of the site.

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## CERTIFICATION

Signed,



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



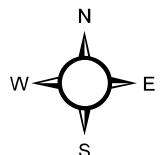


# Areas of Concern - 25 Talbot Lane



Sketch Map - not to scale  
Steven Danzer Ph.D., Soil Scientist  
Steven Danzer Ph.D. & Associates  
LLC

0 100 200 400 Feet  
1 inch = 200 feet





**Attachment B.** Copies of 1994 survey with wetland boundaries – entire map and zoomed section

