C 6 Tracy Chalifoux LLC

Landscape Architect

Date: April 15, 2021

To: Town of Wilton Inland Wetlands Commission

From: Mieko Ikegame

Re: Letter of Consent 16 Rivergate Woods Wilton, CT 06897

I, Mieko Ikegame, hereby authorize Tracy Chalifoux LLC, to act as my agent for preparation of an Inland Wetlands Application for a Significant Regulated Activity Corrective Action for the above-referenced property.

I am aware of the proposed site improvements, and consent to the activities set forth within the application.

, 10, 202

Mieko Ikegame

Date

7 King Street, Danbury, CT 06811

Mobile: 845-364-1360 E-mail: tlchalifoux@gmail.com INLAND WETLANDS COMMISSION Telephone (203) 563-0180 Fax (203) 563-0284



TOWN HALL 238 Danbury Road Wilton, Connecticut 06897

APPLICATION FOR A SIGNIFICANT REGULATED ACTIVITY

| For Office lise Only | | | | | |
|--|---|--|--|--|--|
| | WET# | | | | |
| Filing Fee \$ | Wilton Land Record Map# | | | | |
| Date of Submission | Volume # Page # | | | | |
| Date of Acceptance | Assessor's Map # Lot# | | | | |
| APPLICANT INF | FORMATION: | | | | |
| Applicant Micko Ikegame | Agent (if applicable) Tracy Chalifoux LLC | | | | |
| Address 6 Rivergate Woods | Address 7 King St | | | | |
| Wilton, CT 06897 | babbury, CT 06811 | | | | |
| Telephone 917-238-2440 Jake Saltzmah | Telephone <u>845-364-1360</u> | | | | |
| Email mieko 615 @ aol, com | Email +1 chalifoux@ghail.com | | | | |
| PROJECT INFO | PROJECT INFORMATION: | | | | |
| Property Address 16 Rivergate Woods | Site Acreage 1,93 | | | | |
| Acres of altered Wetlands On-Site 995 Sf (0.023 aC) | Cu. Yds. of Material Excavated <u>6 CU. Yds</u> (excavated) | | | | |
| Linear Feet of Watercourse0 | Cu. Yds. of Material to be Deposited | | | | |
| Linear Feet of Open Water Pohd area = 12,680 Sf | Acres of altered upland buffer 0 | | | | |
| Sq. Ft. of proposed and/or altered impervious coverage() | Sq. Ft. of disturbed land in regulated area 995 st | | | | |
| | | | | | |

APPLICATION REQUIREMENTS:

Is The Site Within a Public Water Supply Watershed Boundary? NO ____YES*_____ Is The Site Within 500 Feet of a Town Boundary? NO_____ YES*_____

* If the answer is yes, then the applicant is responsible for notifying the appropriate water authority and/or adjoining community's Wetlands Department. Instructions for notification are available at the office of the commission.

Page 2 Application for a Significant Regulated Activity

Applicant's Signature:

Project Description and Purpose: REMOVAL OF EXISTING SEDIMENT PILES AND INVASIVE VEGETATION, RESETTING EXISTING BOULDERS AT POND'S EDGE, INSTALLATION OF NATIVE WETLAND PLANTINGS TO MITIGATE PREVIOUS, MINOR POND DREDGING AND ENVIRONMENTALLY ENHANCE SHORELINE, POSSIBLE PLACEMENT OF SMALL LANDSCAPE BOULDERS.

In addition, the applicant shall provide eleven (11) collated copies of the following information as well as an electronic submission via email to mike.conklin@wiltonct.org & elizabeth.larkin@wiltonct.org **

| A. Written consent from the owner authorizing the agent to act on his/her behalf | | | | | |
|--|------------------------------|------------------------------------|---|--|--|
| | $\langle \mathbf{v} \rangle$ | В. | A Location Map at a scale of 1" = 800' | | |
| | $\langle \rangle$ | C. | A Site Plan showing existing and proposed features at a scale not to exceed 1" = 40' accurate to the level of a A-2 property and T-2 topographic surveys | | |
| N/A | () | D. | Sketch Plans depicting the alternatives considered | | |
| NA | () | E. | Engineering Reports and Analysis and additional drawing to fully describe the proposed project | | |
| • • | $\langle \mathbf{v} \rangle$ | Lat. | Sedimentation and Erosion Control Plan, including the Construction Sequence | | |
| | $\langle \rangle$ | G. | Names and addresses of adjoining property owners | | |
| | $\langle \mathbf{v} \rangle$ | H. | A narrative describing, in detail | | |
| | | | a. the proposed activity c. impacts b. the alternatives considered d. proposed mitigation measures | | |
| | $\langle \rangle$ | I. | Soils Report prepared by a Certified Soil Scientist and Wetlands Map prepared by a Registered Land Surveyor | | |
| | (\checkmark) | J. | A Biological Evaluation prepared by a biologist or other qualified professional | | |
| NA | () | K | Description of the chemical and physical characteristics of fill material to be used in the Regulated Area | | |
| | $\langle \rangle$ | | Description and maps detailing the watershed of the Regulated Area | | |
| | (J) | M | Envelopes addressed to adjacent neighbors, the applicant, and/or agent, with <u>certified</u> postage and no return address | | |
| | **Appl sided. | ication | materials shall be collated and copies of documents more than two pages in length shall be double | | |
| | See Sec applica | ction 7 c tions rec | of the Wetlands and Watercourses Regulations of the Town of Wilton for a more detailed description of quirements. | | |
| | The Ap the pen | plicant o alties for | r his/her agent certifies that he is familiar with the information provided in this application and is aware of r obtaining a permit through deception, inaccurate or misleading information. | | |
| | By sign Commi and afte | ing this ssioners er a final | application, permission is hereby given to necessary and proper inspections of the subject property by the and designated agents of the Commission or consultants to the Commission, at reasonable times, both before decision has been rendered. | | |

mm

May 3, 2021

Date:



APPX. 1/3 OF INTERNAL BRANCHES MAY BE PRUNED AT DIRECTION OF LAND. ARCH.

SET TOP OF ROOTBALL AT OR SLIGHTLY ABOVE GRADE WHERE PLANT WAS DUG

CUT BURLAP & TWINE FROM TOP 1/3 OF ROOTBALL; LOOSEN ALL TIES; REMOVE ALL PLANT TAGS

3" (MAX.) UNDYED MULCH SET IN 3" DEEP WATERING SAUCER (SUBSTITUTES APPROVED BY LANDSCAPE ARCHITECT ONLY)

3" H. RIM OF TAMPED EARTH AT HOLE PERIMETER TO RETAIN WATER

FINISHED GRADE

PLANTING SOIL MIX

A SINGLE AREA MAY BE EXCAVATED FOR GROUPS OF SHRUB PLANTINGS; BARE ROOT PLANTING MAY BE SET IN HOLES ONLY 2X ROOT SPREAD

NOTE: FOR ALL CONTAINER GROWN PLANTS, REMOVE FROM CONTAINER JUST PRIOR TO PLANTING AND MAKE VERTICAL INCISIONS ALONG THE SURFACE OF THE ROOTBALL WITH A SHARP INSTRUMENT. CUT THROUGH CIRCULAR ROOTS AND GENTLY COMB OUT ROOTS.

SHRUB PLANTING DETAIL



NOTES: I. CONTACT CALL BEFORE YOU DIG AT 800-922-4455 TO HAVE UNDERGROUND UTILITY LINES MARKED PRIOR TO START OF ANY EXCAVATION WORK.

2. BASE MAP INFORMATION WAS TAKEN FROM "EXISTING CONDITIONS SURVEY" PREPARED BY J. EDWARDS & ASSOCIATES, LLC DATED APRIL 1, 2021.

- 3. CONTRACTOR SHALL STRICTLY ADHERE TO THE LIMIT OF DISTURBANCE SHOWN IN THE PLAN.
- 4. WETLANDS WERE DELINEATED BY STEVEN DANZER PHD & ASSOCIATES LLC
- ON NOVEMBER 19, 2020. 5. PRIOR TO THE START OF WORK, CONTRACTOR SHALL REVIEW ALL WETLAND PERMIT CONDITIONS AND COMPLY WITH PERMIT CONDITIONS THRAUGHAUT

THE CONSTRUCTION PROCESS

CONSTRUCTION SEQUENCE CONSTRUCT ANTI-TRACKING PAD, IF NEEDED ..

- INSTALL SILT FENCE. REMOVE SEDIMENT PILES FROM THE POND'S EDGE AND EXPORT THE SEDIMENT FROM THE SITE. DREDGED MATERIAL IS TO BE TESTED PRIOR
- TO FINAL DISPOSAL OR RE-USE. 3. HAND RAKE TO RESTORE GRADES ALONG SHORELINE FROM WHERE SEDIMENT PILES WERE REMOVED TO PRE-DISTURBANCE CONDITIONS.
- 4. USING TRACKED MACHINERY, ADJUST PLACEMENT OF EXISTING BOULDERS AT THE POND'S EDGE (POTENTIAL WORK).
- 5. PLACE NEW BOULDERS ALONG POND'S EDGE (APPROXIMATELY 9-15, 2 FT TO 3 FT DIAMETER BOULDERS, COUNTERSUNK BY 6 INCHES). APPLY MOSS
- PLANTING MIX TO BOULDERS (POTENTIAL WORK). 6. REMOVE INVASIVE VEGETATION AND DISPOSE OF OFF-SITE. INSTALL NEW NATIVE PLANTS ACCORDING TO PLAN.
- 8. RESTORE ALL DISTURBED AREAS: FINE RAKE, SEED AND HAY MULCH ALL DISTURBED AREAS.

PLANTING NOTES:

N/F

LYŃCH

- ANY INVASIVE VEGETATION TO BE REMOVED FROM WITHIN WORK AREA IS TO BE FLAGGED BY QUALIFIED PROFESSIONAL, REMOVED BY HAND, AND DISPOSED OF OFF-SITE.
- 2. EXACT LOCATION OF PLANTINGS, SPECIES TYPES AND QUANTITIES MAY VARY FROM THIS PLAN BASED ON SITE PLAN REVISIONS AND/OR ACTUAL FIELD CONDITIONS.
- 3. PLANT SPECIES SUBSTITUTIONS MAY BE MADE WITH THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PLANTING. SUBSTITUTED PLANTS SHALL BE AT AN EQUAL OR GREATER SIZE AS NOTED USING A SIMILAR TYPE PLANT.
- 4. ALL PLANTING METHODS SHALL BE IN ACCORDANCE WITH THE 'AMERICAN STANDARDS FOR NURSERY STOCK' LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. 5. IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITIES OF PLANTS
- IN THE 'PLANT LIST' AND THE ACTUAL QUANTITIES SHOWN ON THE PLAN THE PLAN SHALL GOVERN.
- 6. ALL PLANTING WORK SHALL BE PERFORMED EITHER BY HAND OR BY SMALL TRACKED EQUIPMENT
- 7. ANY PLANTINGS SUSCEPTIBLE TO DEER BROWSING SHALL BE SPRAYED WITH ORGANIC DEER REPELLENT AND/OR PROTECTED WITH A PHYSICAL BARRIER, SUCH AS TREE JUBES, MESH FENCING, OR SIMILAR. 8. PLANTINGS SHALL BE HAND WATERED OR WATERED BY A TEMPORARY
- IRRIGATION GYSTÈM UNTIL ESTABLISHMENT





Landscape Architect

Project Narrative

Prepared for: 16 Rivergate Woods Wilton, CT

May 5, 2021

Introduction

The roughly 1.93 acre property is situated at the northwest end of Rivergate Woods. The property contains a single-family residence with attached garage, driveway from the end of Rivergate Woods, walkways, patios, retaining walls, a roughly 0.29 acre pond, lawn areas and planting beds. The property is forested to the north, south and west. Wetlands are located to the north and immediately around the pond. An 18-inch culvert pipe under the driveway at the north end drains the northern wetlands southerly into the pond.

Background

On November 13, 2020, a Cease and Desist Order was upheld by the Inland Wetlands Commission for unauthorized work that was discovered on the property. A portion of the pond was dredged, and the dredged material was placed in small piles along the north, east and south shore of the pond. The home-owner seeks to remove the sediment from the pond's edge, reset existing boulders along the pond's edge to stabilize the shoreline, and enhance the wetlands with native, wetland plantings as part of a Corrective Action Wetlands Application for a Significant Regulated Activity.

Proposed Activities and Mitigation Measures

Restoration of the Pond's Shore

The existing piles of dredge spoil material that had been placed along the north, east and south areas of the shoreline in the Fall of 2020 are to be removed and exported from the site. The removal will be performed by hand, or by small tracked machinery. The material will be trucked from the site. The estimated volume of the material to be removed is approximately six cubic yards.

The existing rocks and boulders along the pond's edge are potentially proposed to be reset in order to stabilize the shoreline to the northwest and north. The resetting of the rocks will be performed with tracked machinery, during low-flow conditions. New boulders may be added to increase stabilization.

Potentially, along the east shore of the pond, within the wetlands, interspersed with the native plantings, between nine and fifteen naturalistic boulders (two foot to three foot diameter, countersunk by six inches) may be placed. A native moss planting mix is to be applied to the potential boulders.

7 King Street, Danbury, CT 06811

Mobile: 845-364-1360 E-mail: tlchalifoux@gmail.com

Wetland Enhancement Plantings

The intention of the proposed activities is to enhance the wetlands along the pond's shore through the introduction of a variety of native plantings. The new plantings will improve the ecology of the property. The proposed shrubs and perennials will control erosion by reducing stormwater runoff, creating an opportunity for stormwater to be absorbed and filtered, protecting the water quality of the existing pond. The proposed plantings will also provide habitat, food and shelter for fauna and avian species. A variety of native plant species are proposed which will serve to increase biodiversity through attracting additional birds, insects and mammals. The wetland area planting mitigation and enhancement includes 24 native shrubs and 147 native perennials. Approximately 0.023 acres (995 sq ft) of the wetlands area is to be enhanced. No existing trees are to be removed. To the north and northeast, two small open areas are proposed to enable the owners to access the pond. The two access areas are to have either lawn, or a native moss groundcover.

Invasive vegetation within the work area is to be removed by hand and disposed of in an off-site location. Multiflora rose, vines and bramble were the primary invasive species observed within the work area. Non-native Yucca is to be removed from the east portion of the shoreline. A fallen tree to the southwest of the pond is to be removed and disposed of off-site.

Impacts

The proposed activities will provide a positive impact to the wetlands through removal of the existing sediment piles to reclaim the disturbed areas for native plantings, which will provide additional habitat and water quality remediation, therefore increasing buffer functions. Removal of invasive vegetation will reduce competition with the native plants. Potential resetting of the rocks along the shoreline will stabilize the pond's edge and reduce erosion.

Sediment and Erosion Controls

Contained on the site plans are sediment and erosion control measures. A stabilized construction access pad may be installed, if needed. Silt fence shall be installed according to the plan and shall remain in place for the duration of the project. The project landscape architect may determine if additional measures are needed. Work shall be performed during a low-flow time of year. All existing trees to remain shall be protected. Disturbance shall be kept to a minimum. After the site is fully stable with vegetative cover, the silt fence may be removed.

Summary

The proposed removal of the sediment piles and wetland planting improvements will significantly improve the ecology of the property through mitigating stormwater runoff and erosion, increasing biodiversity to support existing and attract new wildlife and pollinators, and creating food and shelter for the fauna. The potential resetting of the rocks along the shoreline will help reduce erosion.

7 King Street, Danbury, CT 06811

Mobile: 845-364-1360 E-mail: tlchalifoux@gmail.com

Adjoining Property Owners to 16 Rivergate Woods, Wilton, CT

Lindsay E. and Janis A. Curtis 15 Rivergate Woods Wilton, CT 06897

James and Maria Pirro

14 Rivergate Woods

Wilton, CT 06897

Roman David Jr.

276 Rivergate Dr

Wilton, CT 06897

Nextgen Property Investors LLC

2186 Sabal Palm Circle

Boca Raton, FL 33432

Brian E. Lynch and Robin D. McQueen 288 Chestnut Hill Rd Wilton, CT 06897



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

Biological Evaluation

Pond Bank Restoration 16 Rivergate Woods, Wilton, CT

Date: May 5, 2021

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.
- Senior Professional Wetland Scientist PWS #1321, Society of Wetland Scientists.
- Arborist CT DEEP License S-5639; ISA Certified NE-7409A.
- Ph.D. Renewable Natural Resource Studies.

INTRODUCTION

Regulated activities are proposed adjacent and/or slightly within a pond located at 16 Rivergate Woods, Wilton Connecticut, as indicated on the site plan prepared by Tracy Chalifoux, Landscape Architect dated May 5, 2021. Regulated activities include the removal of dredge spoil from the ponds edge, potential movement of boulders, and replanting/enhancing the pond's edge using native plants.

SITE HISTORY

On November 13, 2020, a Cease and Desist Order was upheld by the Inland Wetlands Commission for unauthorized work that was discovered on the property. The work involved a portion of the pond that was dredged. The dredged material was placed in small piles along the north, east and south shore of the pond and left until permits could be secured.

WATERSHED AND WATERBODY DESCRIPTION

The roughly 1.93 acre site is located at the end of Rivergate Woods, Wilton, CT. Landuse is residential. The site is located within the DEEP Basin 7203-00 within the West Branch Saugatuck River Subregional Basin.

Wetland resources on site include a 0.3 acre pond with wetland soils along the shallower portions of the pond's edge. The wetland boundary was delineated on 11/19/21 by Steven Danzer Ph.D., Soil Scientist. The wetland soils flanking the pond (and in the adjacent forest located to the north) are best characterized as within the *Ridgebury, Leicester, and Whitman soils extremely stony* mapping unit.

The pond is circumscribed by driveways on three of its four sides, and by a steep vegetated hill on the fourth (western) side. Upslope of the steep hill is the residence.

North of the pond across the driveway is a larger forested Red maple swamp wetland drainage corridor which primarily extends from off site. This system drains southerly under the driveway into the pond. Fringing this wetland area on its southeast side are sloped wetlands.

The pond drains southerly off site underneath a driveway and into another 0.3 acre pond, all located on the adjacent property to the south at 14 Rivergate Woods. That second pond similarly drains south through a watercourse for approximately another 1200 feet until the confluence of the watercourse with the West Branch of the Saugatuck River, west of Newtown Avenue.

The pond itself is shallow, averaging 1.8 feet in depth as of the end of April 2021. It appears that the pond does not support a natural fish population. However, the aquatic habitat appears to be sufficient to support amphibians and reptiles, benefiting from the close proximity to the forested wetlands to the north.

Sediment is actively accumulating within the pond. That concern stimulated to unauthorized activities referred to previously. During the end of April 2021, the bottom of the pond was sampled. Average depth of the sediment to pond bottom was 1.7 feet. The sediment was characterized as primarily organic in composition, likely from the leaves from the adjacent woodland environment as well as possibly from erosion and sedimentation from the forested wetland drainage corridor located to the north.

Surrounding the pond on its banks is a mixture of native, invasive and ornamental vegetation including Willow, Dogwood, Red maple, Red oak, Pachysandra, Blackberry, Wineberry, Azalea, Multiflora rose, Garlic mustard, and Skunk cabbage. Located on the

Steven Danzer Ph.D. and Associates LLC www.CTWetlandsConsulting.com 203-451-8319 bank are also at least six piles of organic sediment (recent dredge spoil), roughly 2-2.5 feet in depth, and approximately 6 CY in total volume as per estimates from the project Landscape Architect.

IMPACT OF PROPOSED ACTIVITIES

A portion of the pond was previously dredged, and the spoils left on the edge of bank until permit could be secured. The homeowner seeks to remove these piles and restore the bank. There are no plans at this time to continue the dredging.

The existing piles of dredge spoil are to be removed and exported from the site. Work will be performed by hand or by small tracked machinery. The existing rocks along the pond's edge will be potentially reset and several new boulders may be shallowly counter sunk into the soil to increase stabilization and add additional aesthetics. The boulder locations were selected so as no native vegetation will be displaced during their placement.

The wetland area planting mitigation and enhancement portion of the project will include the planting of 24 native shrubs and 147 native perennials in an area of roughly 0.023 acres. Invasive vegetation, including rose, vines, bramble, and Yucca, will be removed.

The activity is intended to be a restoration and enhancement project to address the previous Cease and Desist order. As so there will be no significant impacts to the pond or the wetlands, and no negative alteration of existing wetland function or values. The proposed activities were evaluated pursuant to the criteria enumerated in the Inland Wetland and Watercourse Regulations for the Town of Wilton under Section 2.1(z)3 (Significant Regulated Activity). The activity will not substantially change the natural channel or inhibit the natural dynamics of the watercourse system, nor diminish the natural capacity of the system to support existing functions, or cause substantial turbidity, siltation, sedimentation or thermal pollution, nor cause a substantial change of flow, nor cause pollution, nor destroy unique wetlands, watercourses or regulated areas having demonstrable scientific or educational value.

The removal of the sediment piles will restore and/or increase available wetland habitat along the bank of the pond. The plantings will also increase or enhance the wetland habitat, provide water quality remediation for stormwater flows from adjacent yards and driveways, and if they grow tall enough, provide shading to the pond. The removal of invasive vegetation will reduce selective pressure on existing native vegetation and also increase the opportunity for additional wetland habitat to develop. Respectfully submitted,

Signed,

Ster Dage

Steven Danzer Ph.D.

Soil Scientist, Professional Wetland Scientist, Arborist Ph.D. in Renewable Natural Resource Studies



Steven Danzer Ph.D. and Associates LLC www.CTWetlandsConsulting.com 203-451-8319 **Town of Wilton**

Date Printed: 4/9/2021

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MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Wilton and its mapping contractors assume no legal responsibility for the information contained herein.

Zoning Effective: July 28, 2017 **Planimetrics Updated: 2014** Approximate Scale: 1 inch = 800 feet 800 0 ⊐Feet





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

Soil Report

Date: November 19, 2020

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: 16 Rivergate Woods, Wilton, CT.

INTRODUCTION

A wetlands investigation was performed at 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

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 November 18, 2020. 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 on site with flagging tape and/or stakes (Wetland Flags 1-14, 15-36) and a sketch map prepared (attached).

SITE DESCRIPTION AND DISCUSSION

The roughly 1.93 acre site is located at the end of Rivergate Woods, Wilton, CT. Land-use is is residential. The site is located within the DEEP Basin 7203-00 within the West Branch Saugatuck River Subregional Basin.

Steven Danzer PhD and Associates LLC www.CTWetlandsConsulting.com 203-451-8319 Wetland resources on site include a 0.3 acre pond with flanking wetland soils. North of the pond across the driveway is a larger forested wetland drainage corridor which primarily extends from off site. This system drains southerly under the driveway into the pond. Fringing this wetland area on its southeast side are sloped wetlands.

DATA AND RESULTS

WETLAND AND WATERCOURSE SOIL MAPPING UNITS

(3) **Ridgebury, Leicester, and Whitman soils extremely stony** in the area north of the driveway, and lawned wetlands south of residence

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

(73E) Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky - uplands east of pond

(62D) Canton and Charlton soils, 15-35 percent slopes, extremely stony - hilly uplands west of pond

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

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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

The Chatfield series consists of well drained and somewhat excessively drained soils formed in till derived from parent materials that are very low in iron sulfides. They are moderately deep to bedrock. They are nearly level through very steep soils on glaciated plains, hills, and ridges. Slope ranges from 0 through 70 percent. Crystalline bedrock is at depths of 20 to 40 inches (50 through 100 centimeters). Saturated hydraulic conductivity is moderately high or high in the mineral soil. Mean annual temperature is 51 degrees F (11 degrees C) and mean annual precipitation is 38 inches (1194 millimeters).

TAXONOMIC CLASS: Coarse-loamy, mixed, superactive, mesic Typic 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,

Ster Dage

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



Steven Danzer PhD and Associates LLC www.CTWetlandsConsulting.com 203-451-8319

16 Rivergate Woods, Wilton, CT





WILTON CONNECTICUT SUBREGIONAL BASINS AND SURFACE WATER FLOW DIRECTIONS

Explanation



< Surface Water Flow Direction

The table provides statistics for each subregional basin. Shown are the areas of the basin within the town, the percentage for that area, and the percent of the town covered by each basin.

| Sbas_no | AcresInTw | Percofb | Percoftw |
|---------|-----------|---------|----------|
| 7200 | 21.0 01 | 1 0 | 1 0 |
| 7200 | 1777 03 | 1.0 | 10.2 |
| 7203 | 6609.70 | 31.7 | 37.8 |
| 7301 | 4046.03 | 86.1 | 23.1 |
| 7302 | 4738.78 | 32.9 | 27.1 |



VEM0



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