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# JMM WETLAND CONSULTING SERVICES, LLC

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23 Horseshoe Ridge Road  
Newtown, CT 06482

Phone: 203-364-0345  
Mobile: 203-994-3428  
james@jmmwetland.com  
jmmwetland.com

November 1, 2021

Town of Cheshire  
Inland Wetlands and Watercourses Commission  
84 South Main Street  
Cheshire, CT 06410

RE: ***Wetlands Assessment/Impact Analysis***  
940 Allen Avenue & 375 Finch Avenue, Cheshire, Connecticut

*JMM Job # 21-2946-CHS-1*

Dear Commissioners:

Per the request of the applicant, Pinnacle Land Development, LLC, JMM Wetland Consulting Services, LLC (JMM) is providing this *Wetlands Assessment/Impact Analysis* report to be submitted as part of an application to conduct regulated activities at the above-referenced property.

JMM initially visited the site on September 29<sup>th</sup>, 2021 to review the site's regulated wetlands areas, specifically within the southern portion of the site. Moreover, on October 12<sup>th</sup>, 2021 an additional site visit was conducted to complete a soils-based wetland delineation. JMM carefully reviewed the subject site with the use of a hand-held soil auger and spade, to a minimum depth of 24-inches, and any areas determined to have poorly or very poorly drained soils and/or regulated watercourses were identified and delineated. It should be noted that JMM only reviewed and delineated a portion of the overall site's wetland that is the regulated wetlands located in the southern part of the site, which is the subject of a 4-lot residential subdivision (i.e., JMM Study Area, see Figure 1, attached).

In this report, JMM is providing the following:

1. Descriptions of the on-site regulated wetlands and watercourses within the study area.

2. A functions and values assessment of the regulated wetlands associated within and adjacent to the study area.
3. An analysis of the direct and potential indirect impacts upon the regulated resources and upon the functions and values they provide associated with any activities within the study area.

## **1.0 Introduction**

This +/- 15.8-acre site is located north of Allen Avenue and west of Finch Avenue, in Cheshire, Connecticut (see Figure 1, attached). The study area is currently comprised of a single-family, residence, maintained lawn, landscaped areas, paved driveway, scattered trees and shrubs, and in-ground pool, sheds, and forested upland and wetlands, which include a semi-perennial and intermittent watercourses.

## **2.0 Description of Regulated Resource Areas**

### **JMM-#-Series Wetland**

The portion of the wetland area reviewed/delineated is located along the southeastern and northern portions of the site adjacent to the study area. The wetland area includes a semi-perennial watercourse within the northwestern part and an intermittent watercourse in the eastern and northeastern parts. It is worth noting that the USGS topographic map show the western watercourse as an intermittent watercourse; however, due to the size of the drainage area one can expect that the watercourse is semi-perennial. JMM wetland boundary markers JMM-1 to JMM-50 demarcate the regulated areas within the study area.

This wetland is classified as a *palustrine, broad-leaved forested wetland* (PFO1E) according the National Wetland Inventory (NWI) Classification system (see photos 1-7, attached). The dominant hydrologic regimes within this wooded swamp are *seasonally saturated* and *seasonally flooded* and the wetland's hydro-geomorphic classification (HGM) is *groundwater* and *surface water slope*. Within this wetland area the soils were observed to be mainly poorly drained; however, very poorly drained soils were also noted.

Typical vegetation observed includes such species as red maple, speckled alder, spicebush, silky dogwood, honeysuckle (invasive), multiflora rose (invasive), skunk cabbage, royal fern, wood ferns, sedges, arrow-leaved tearthumb, areas of mile-a-minute vine (invasive), Asiatic bittersweet (invasive), and poison ivy, as well as others.

### **3.0 Soils of Study Area**

The soils within the study area were observed to be both undisturbed and disturbed. The disturbed soils were observed to be scattered throughout. The undisturbed soils are derived from glacial till (i.e., unstratified sand, silt, and rock) deposits, glacial outwash (i.e., stratified sand and gravel) deposits. The undisturbed upland soils are comprised of the excessively drained Manchester (37) soil series, the well-drained Yalesville (69) and Cheshire (63) soil series, and the moderately well drained Watchaug (55) soil series.

**Manchester gravely sandy loam (37).** This series consists of very deep, excessively drained soils formed in a shallow, loamy sand mantle underlain by gravely sand, water deposited glacial outwash materials. They are level to very steep soils on outwash plains, terraces, deltas, kames and eskers. The soils formed in loamy over stratified sandy and gravely glacial outwash derived mainly from Triassic sandstone, shale, conglomerate and basalt. Typically these soils have a reddish brown gravely sandy loam surface layer 6 inches thick. The subsoil layer from 6 to 16 inches is yellowish red gravely sandy loam. The substratum from 16 to 60 inches is yellowish brown stratified sand and gravel.

**Yalesville fine sandy loam (69).** This series consists of moderately deep, well drained soils formed in a loamy till. They are nearly level to moderately steep soils on hills and ridges. Slope ranges from 0 to 50 percent. Depth to bedrock ranges from 51 to 102 cm.

**Cheshire fine sandy loam (63).** The Cheshire series consists of reddish, well-drained soils that have developed on glacial till. The till was derived mainly from reddish-brown Triassic sandstone and conglomerate that contained basalt and other rocks in various amounts. It ranges from gravely sandy loam to gravely loamy sand and is firm to very friable. Cheshire soils occur on gently sloping or undulating to hilly till plains.

The disturbed upland soils were mapped as the Udorthents (308) mapping unit.

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**Udorthents (308).** This soil mapping unit consists of well drained to moderately well drained soils that have been altered by cutting, filling, or grading. The areas either have had two feet or more of the upper part of the original soil removed or have more than two feet of fill material on top of the original soil. *Udorthents* or Made Land soils can be found on any soil parent material but are typically fluvial on glacial till plains and outwash plains and stream terraces.

The undisturbed wetland soils were identified as the poorly to very poorly drained Wilbraham-Menlo (6) soil series complex.

**Wilbraham silt loam (6).** This series consists of deep, poorly drained soils formed in a coarse-loamy mantle underlain by firm, compact glacial till from Triassic materials. They are nearly level to sloping soils located in drainage ways and low lying positions on till plains, low ridges and drumloidal landforms. The soils have developed in glacial till derived mainly from reddish Triassic sandstone, conglomerate and shale with some basalt. Typically, these soils have a dark brown silt loam surface layer 8 inches thick. The subsoil from 8 to 25 inches is reddish brown, mottled silt loam. The substratum from 26 to 60 inches is reddish brown, mottled, very firm fine sandy loam.

**Menlo silt loam (6).** This series consists of deep, very poorly drained soils formed in a coarse-loamy mantle underlain by firm, compact glacial till from Triassic materials. They are nearly level to gently sloping soils located in drainage ways and low lying positions on till plains, low ridges and drumloidal landforms. The soils developed in glacial till derived mainly from reddish Triassic sandstone, conglomerate and shale with some basalt. Typically, these soils have 3 inches of black muck on top of the surface layer. The surface layer from 0 to 5 inches is black silt loam. The upper part of the subsoil from 5 to 8 inches is gray, mottled silt loam; and the lower part of the subsoil from 8 to 23 inches is red, mottled loam. The substratum from 23 to 60 inches is reddish brown, mottled, very firm gravely loam.

Any disturbed wetland soils were mapped as the Aquents (308w) soil mapping unit.

**Aquents (308w).** This soil map unit consists of poorly drained and very poorly drained disturbed land areas. They are most often found on landscapes, which have been subject to prior filling and/or excavation activities. In general, this soil map unit occurs where two or more feet of the original soil surface has been filled over, graded or excavated. The *Aquents* are characterized by a seasonal to prolonged high ground water table and either support or are capable of supporting wetland vegetation. *Aquents* are recently formed soils, which have an aquic moisture regime. An aquic moisture regime is associated with a reducing soil environment that is virtually free of dissolved oxygen because the soil is saturated by groundwater or by water of the capillary fringe. The key feature is the presence of a ground water table at or very near to the soil surface for a period of fourteen days or longer during the growing season.

## 4.0 Functions/Values Assessment

The assessment of wetland functions and values is based primarily on the US Army Corps of Engineers' (USACE) *Descriptive Approach* (1995), and on best professional judgment. The assessment looks at mainly the JMM-#-series within or adjacent to the study area; however, contiguous wetlands to the west and north were included in the evaluation.

A summary of the functions and values assessment can be found in Table 1, below. As can be seen, the #-series wetland offers three (3) principal functions and values.

This assessment is based on a number of factors, including the fact that the wetland that is adjacent to the proposed development, has a low diversity of vegetative cover types and plant species, show signs of past disturbance, has an abundance of invasive species, and the surrounding upland landscape (i.e., residential) is considered unfavorable. Thus, the assessed wetlands only offer a few principal functions and values. It is worth noting that the wetlands to the west and off-site, which includes a semi-perennial watercourse, would increase the function/values to some extent, but this area is also disturbed with evidence of post-agricultural disturbances throughout.

Table 1: Summary of Wetland/Watercourse Function-Value Assessment

Function/Value	JMM-#-Series
Groundwater Recharge/Discharge	P
Floodflow Alteration	Y
Sediment/Shoreline Stabilization	N/A
Sediment/Toxicant/Pathogen Retention	P
Nutrient Removal/Retention/Transformation	P
Production Export	Y
Fish and Aquatic Habitat	Y
Wildlife Habitat	Y
Endangered Species Habitat	N
Visual Quality/Aesthetics	N
Educational/Scientific Value	N
Recreation (Passive, Active)	N
Uniqueness/Heritage	N

Notes: P = Principal function; Y = function present; N = function not appreciably present or absent

## **5.0 Proposed Activities**

### **Overview**

According to the reviewed plans, entitled *Proposed Subdivision, 940 Allen Avenue & 375 Finch Avenue, Cheshire, CT*, prepared for Pinnacle Land Development, LLC, by Solli Engineering, and dated 9/1/21, a single-family re-subdivision with four (4) new residential lots and the expansion of one (1) existing lot for a total of five (5) lots is proposed. Three of the new lots will be accessed via a new 15-foot wide shared paved driveway off Allen Avenue while the other new lot (i.e., Lot 1) will use an existing paved to driveway also off Allen Avenue. All lots will be served via on-site sewage disposal. Other activities include, but are not limited to the installation of utilities, a stormwater basin, catch basin installation, as well as other associated miscellaneous site work.

### **Direct Wetland Impacts**

According to the reviewed site plans no direct wetland or watercourse impacts are proposed at the subject site.

### **Indirect Wetland Impacts**

*Indirect* or secondary impacts to a wetland or watercourse can occur as a result of activities outside of wetlands or watercourses. Such impacts can be *short-term* or *long-term*, and are typically associated with erosion and sedimentation, mostly during the construction period, the removal or disturbance of vegetation in upland areas, but adjacent to wetlands or watercourses, the alteration of wetland hydrology or the flow regime of a watercourse, and the discharge of degraded or insufficiently treated surface water or groundwater, which may adversely impact the water quality of the regulated resources.

The potential for any of these indirect impacts to occur at the site as a result of the proposal depends on the regulated resources themselves, their sensitivity, their ecological and physical characteristics, and the degree to which they provide recognized functions and values. These *potential* impacts are discussed below.

### **Erosion and Sedimentation**

The potential for soil erosion and subsequent deposition in wetlands or watercourses exists at every construction site that involves soil disturbance. At this site the risk or the potential for adverse impacts from erosion and sedimentation is considered *low to low-moderate*. The primary reasons for this assessment are as follows: (1) a detailed erosion and sedimentation



control plan has been prepared and submitted, which complies with the CT DEEP's 2002 *Connecticut Guidelines for Erosion and Sediment Control*, as well as any recent guidelines promulgated by regulatory agencies; and (2) the site's undisturbed soils are *moderately to moderately-high* erosive (see attached K-factor assessment); however, the slopes within the proposed development area are relatively gentle and the distance to regulated wetlands from any activity is, for the most part, beyond 50-feet.

#### ***Removal of Native Vegetation and Habitat Loss***

Habitat loss associated with land clearing is an unavoidable consequence of land development, which has the potential of impacting wetlands and watercourses. At the subject site, an effort has been made to limit the disturbance of woody vegetation to the extent possible, maintaining a sufficient wooded and/or planted buffer to the both of the site's wetland resources.

The proposed plans show that the majority of the site within the proposed activities will have its tree canopy removed. However, the amount of the 50-foot-wide upland review area (URA) to be disturbed is minimal and the vegetative buffers to remain for the regulated wetlands will continue to provide similar functions and values as under existing conditions.

#### ***Potential Impacts to Wetland Hydrology and Stream Flow***

The hydrologic and flow regime of JMM-# series is dependent both on contributions via shallow groundwater flow and surface flows. However, both these wetlands rely primarily on the fluctuations of the subregional water table, which provides for their hydrology. The site plans show that an effort has been made to ensure that wetland hydrology will be preserved. An effort has been made to capture the runoff from the new shared driveway and send it to an above-ground detention basin, which will handle, treat the "first-flush" generated during a storm event. Moreover, the detention basin will recharge the groundwater table at the site. Based on review of the plans, as well as of the drainage report, the hydrology of the wetlands will be maintained.

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#### ***Potential Water Quality Impacts***

Stormwater runoff from impervious surfaces of residential sites has the potential of degrading the water quality (i.e., surface and groundwater) of regulated resources. Generation of potential pollutants on impervious surfaces typically results from vehicular traffic over them.

The CT-DEEP's 2004 *Stormwater Quality Manual* ("the Manual") is used to guide the selection, design, siting, and sizing of appropriate best management practices (BMPs), which are protective of surface and groundwater quality. The CT-DEEP has adopted, through their General Permit for discharge of stormwater, an 80% TSS (total suspended solids) minimum annual removal goal, because research has shown that the concomitant removal of other runoff constituents is high at these levels of TSS removal.

Flows generated from the proposed development, specifically the impervious surfaces associated with a significant section of the proposed shared driveway, will be intercepted and conveyed through a formal stormwater management system which includes catch basins, a water quality detention basin, and a level spreader prior to discharge to regulated resources. This basin has been designed and sized to comply the CT-DEEP Manual, and provides for a water quality volume (WQV) that far exceeds what is required. It is JMM's opinion that the proposed handling of runoff from the site will protect both on-site and off-site downgradient regulated resources.

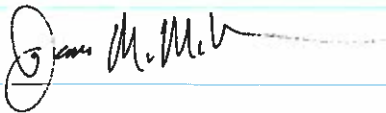
## **6.0 Conclusion**

In conclusion, it is JMM's opinion that as proposed, and with diligent monitoring of erosion and sediment controls, the proposal will *not* have significant adverse short-term (construction) or long-term (water quality/habitat) impacts upon the regulated resources. The functions and values that are provided by the regulated resources will continued to be offered at similar levels post-development, as they are under existing conditions.

Please call us if you have any questions on the above or need further assistance.

Respectfully submitted,

JMM WETLAND CONSULTING SERVICES, LLC



James M. McManus, MS, CPSS  
Certified Professional Soil Scientist (No. 15226)

Attachments: Figure 1-2, Photos 1-8, NRCS Web Soil Survey Map, K-Factor Erodibility Assessment, SreamStats



**FIGURE 1: 940 Allen Avenue & 375 Finch Avenue, Cheshire, Connecticut**

**Town GIS Aerial Photo Showing the Approximate Location of Wetland, JMM Study Area, and Property Boundaries.**

## Town of Cheshire

Geographic Information System (GIS)



### 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 Cheshire and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 200 feet

0 200  
Feet





FIG 2: 940 Allen Ave & 375 Finch Ave



This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

October 29, 2021

**Wetlands**



Estuarine and Marine Deepwater



Estuarine and Marine Wetland



Freshwater Emergent Wetland



Freshwater Forested/Shrub Wetland



Freshwater Pond



Lake



Other



Riverine





*Photo 1: View of regulated wetlands within the southeastern part of JMM-  
#-series (JMM photo taken 9/29/2021); facing southeasterly*



*Photo 2: View of regulated wetlands within the southeastern part of JMM-  
#-series (JMM photo taken 9/29/2021); facing northeasterly*



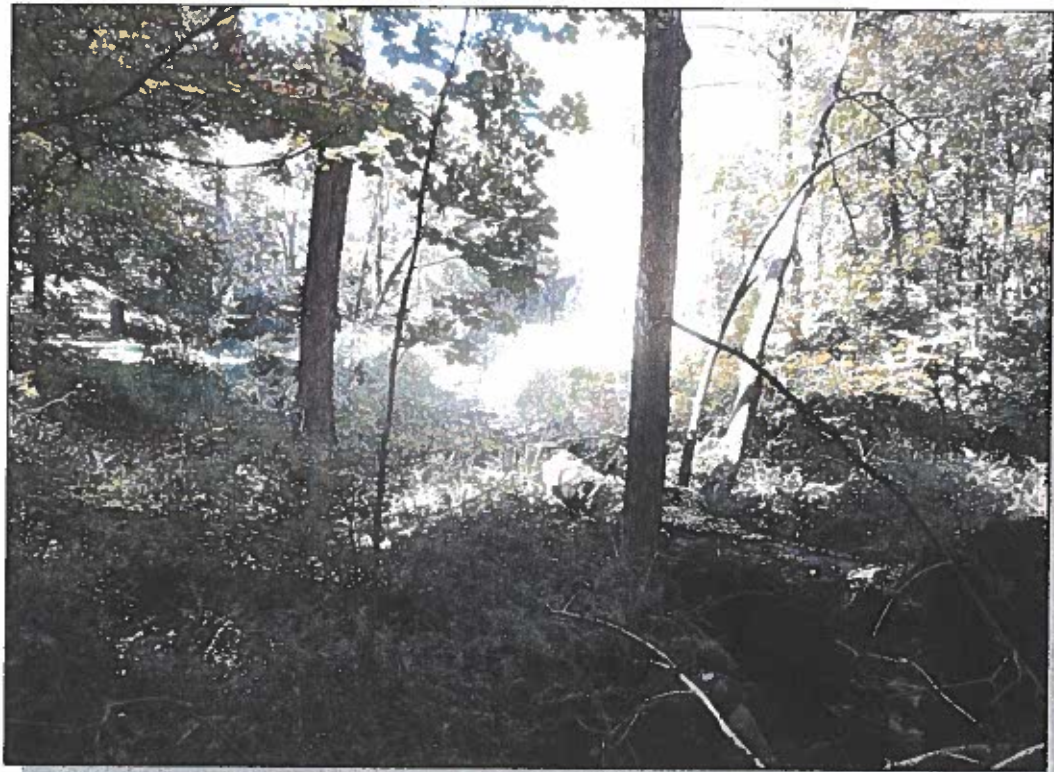


*Photo 3: View of intermittent watercourse within the eastern part of JMM-  
#-series (JMM photo taken 9/29/2021); facing northeasterly*



*Photo 4: View of regulated wetlands within the northeastern part of JMM-  
#-series (JMM photo taken 9/29/2021); facing northeasterly*





*Photo 5: View of regulated wetlands within the northern part of JMM-#-series (JMM photo taken 9/29/2021); facing northwesterly*



*Photo 6: View of semi-perennial watercourse within the far northwestern part of study area (JMM photo taken 9/29/2021); facing northeasterly*





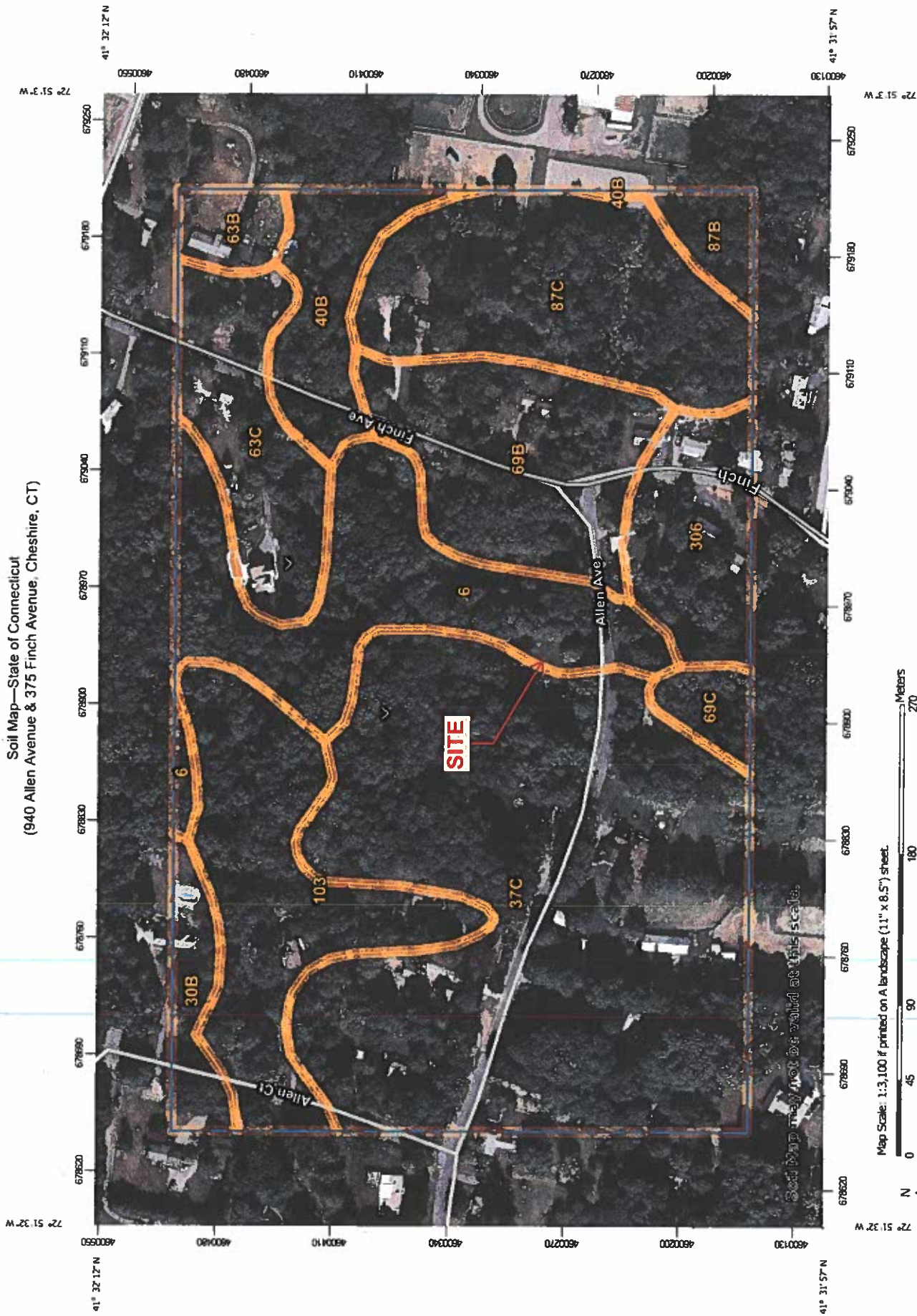
*Photo 7: View of semi-perennial watercourse within the far northwestern part of study area (JMM photo taken 10/12/2021); facing southwesterly*



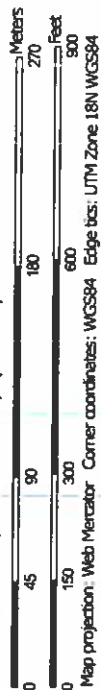
*Photo 8: View of typical uplands within proposed activity areas (JMM photo taken 9/29/2021); facing northerly*



# Soil Map—State of Connecticut (940 Allen Avenue & 375 Finch Avenue, Cheshire, CT)































Map Scale: 1:3,100 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge lbs: UTM Zone 18N WGS84



## MAP LEGEND

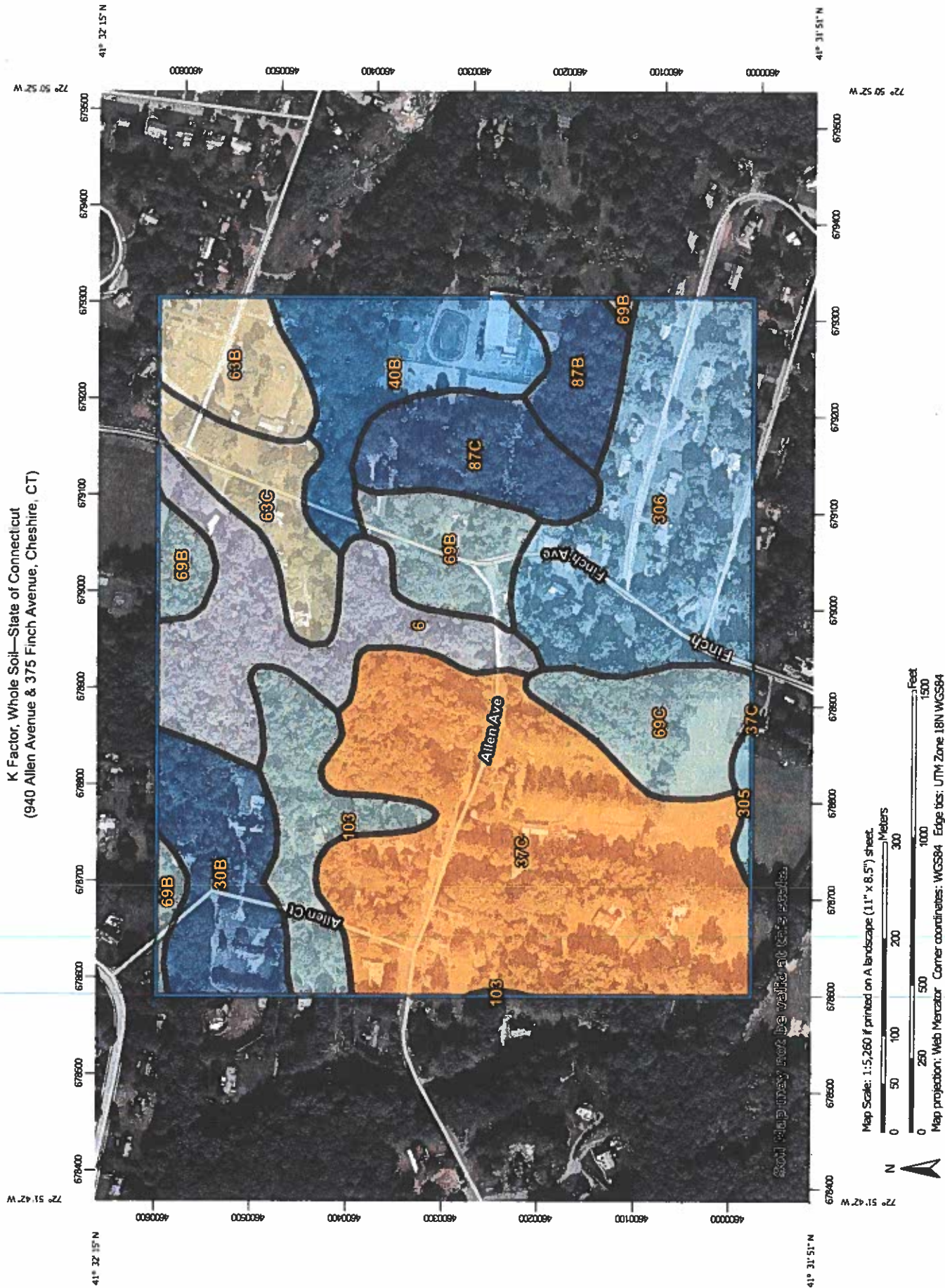
	Area of Interest (AOI)		Spoil Area
	Area of Interest (AOI)		Stony Spot
	Soils		Very Stony Spot
	Soil Map Unit Polygons		Wet Spot
	Soil Map Unit Lines		Other
	Soil Map Unit Points		Special Line Features
	Special Point Features		
	Blowout		
	Borrow Pit		
	Clay Spot		
	Closed Depression		
	Gravel Pit		
	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		
			</

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6	Wilbraham and Menlo soils, 0 to 8 percent slopes, extremely stony	5.6	11.6%
30B	Branford silt loam, 3 to 8 percent slopes	1.1	2.2%
37C	Manchester gravelly sandy loam, 3 to 15 percent slopes	16.9	34.7%
40B	Ludlow silt loam, 3 to 8 percent slopes	2.1	4.4%
63B	Cheshire fine sandy loam, 3 to 8 percent slopes	0.8	1.5%
63C	Cheshire fine sandy loam, 8 to 15 percent slopes	3.1	6.4%
69B	Yalesville fine sandy loam, 3 to 8 percent slopes	4.5	9.2%
69C	Yalesville fine sandy loam, 8 to 15 percent slopes	0.6	1.3%
87B	Wethersfield loam, 3 to 8 percent slopes	0.7	1.5%
87C	Wethersfield loam, 8 to 15 percent slopes	5.6	11.5%
103	Rippowam fine sandy loam	5.2	10.6%
306	Udorthents-Urban land complex	2.5	5.1%
<b>Totals for Area of Interest</b>		<b>48.8</b>	<b>100.0%</b>



K Factor, Whole Soil—State of Connecticut  
(940 Allen Avenue & 375 Finch Avenue, Cheshire, CT)



Map Scale: 1:5,260 if printed on A landscape (11" x 8.5") sheet.

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

## MAP LEGEND

Area of Interest (AOI)  
Area of Interest (AOI)

Soils

Soil Rating Polygons

.02

.05

.10

.15

.17

.20

.24

.28

.32

.37

.43

.49

.55

.64

Not rated or not available

Soil Rating Lines

.02

.05

.10

.15

.17

.20

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: Jun 8, 2020—Jun 12, 2020

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.

## K Factor, Whole Soil

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
6	Wilbraham and Menlo soils, 0 to 8 percent slopes, extremely stony		10.8	9.7%
30B	Branford silt loam, 3 to 8 percent slopes	.43	7.2	6.4%
37C	Manchester gravelly sandy loam, 3 to 15 percent slopes	.10	29.8	26.7%
40B	Ludlow silt loam, 3 to 8 percent slopes	.37	8.4	7.5%
63B	Cheshire fine sandy loam, 3 to 8 percent slopes	.24	4.6	4.1%
63C	Cheshire fine sandy loam, 8 to 15 percent slopes	.24	4.9	4.4%
69B	Yalesville fine sandy loam, 3 to 8 percent slopes	.28	6.9	6.2%
69C	Yalesville fine sandy loam, 8 to 15 percent slopes	.28	5.5	4.9%
87B	Wethersfield loam, 3 to 8 percent slopes	.43	3.4	3.1%
87C	Wethersfield loam, 8 to 15 percent slopes	.43	5.8	5.2%
103	Rippowam fine sandy loam	.28	6.2	5.5%
305	Udorthents-Pits complex, gravelly	.32	0.6	0.5%
306	Udorthents-Urban land complex	.32	17.6	15.8%
<b>Totals for Area of Interest</b>			<b>111.6</b>	<b>100.0%</b>



## Description

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

"Erosion factor Kw (whole soil)" indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Factor K does not apply to organic horizons and is not reported for those layers.

## Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

*Layer Options (Horizon Aggregation Method):* Surface Layer (Not applicable)

## StreamStats Report

Region ID: CT

**Workspace ID:** CT20211029191452956000

**Clicked Point (Latitude, Longitude):** 41.53603, -72.85762

**Time:** 2021-10-29 15:15:10 -0400

## Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.3	square miles
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	17.2	percent
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	64.6	percent
WETLAND	Percentage of Wetlands	0.22	percent

**940 Allen Avenue & 375 Finch Avenue, Cheshire, Connecticut**

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

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USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.6.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2