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June 23, 2022

Mr. Mark Reynolds P.E.
Reynolds Engineering Services LLC
63 Norwich Avenue
Suite 202
Colchester, CT 06415

**RE: Wetland Delineation, 67 Kitemaug Road, MBL: 083-025-000, Montville,
Connecticut.**

Dear Mr. Reynolds:

At Reynolds Engineering Services LLC's request, I have investigated the above referenced .73 property in search of jurisdictional tidal wetlands and freshwater inland wetlands and watercourses.

The subject parcel is a previously developed single-family residential lot with water frontage on Horton Cove and its associated tidal estuary.

Wetland Delineation Methodology

Freshwater Inland Wetlands and Watercourses

A freshwater inland wetland and watercourse survey was completed in accordance with the standards of the Natural Resources Conservation Services (NRCS) National Cooperative Soil Survey and the definitions of inland wetlands and watercourses as found in the Connecticut General Statutes, Chapter 440, Sections 22a-36 through 22a-45 as amended. Wetlands, as defined by the Statute are those soil types designated as poorly drained, very poorly drained, floodplain or alluvial in accordance with the NRCS National Cooperative Soil Survey. Such areas may also include disturbed areas that have been filled, graded, or excavated and which possess an aquic (saturated) soil moisture regime.

Watercourses means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs, and all other bodies of water, natural or artificial, vernal, or intermittent, public, or private, which are contained within, flow through or border upon the Town of Montville or any portion thereof not regulated pursuant to sections 22a-28 through 22a-35, inclusive, of the Connecticut General Statutes. Intermittent watercourses are 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 duration longer than a particular storm incident, and (c) the presence of hydrophytic vegetation.

Tidal Wetlands

The regulated jurisdictional limit of tidal wetlands is established by the Connecticut Department of Energy and Environmental Protection (CTDEEP) defined as the Coastal Jurisdictional Line (CJL). For the Town of Montville, the CJL is set at elevation of 2.3'(NAVD88).

Wetland Delineation Results

The on-site field survey was completed on June 23, 2022, under blue sky conditions. Those areas meeting the criteria noted above were marked in the field with sequentially numbered pink and blue wetland flagging 1 through 12. The provided wetland sketch is intended for planning and navigation purposes and is subject to refinement once formally located and mapped by a land surveyor and adopted by the Town.

The previously developed waterfront lot rests on the northern shoreline of Horton Cove. The previous structure has been demolished and the lot is currently vacant.

Wetland flags 1 through 6 mark the edge of an unnamed freshwater watercourse that forms the southern property boundary. The rock and boulder channel is very well-defined and deeply incised. The watercourse flows south to its confluence with Horton Cove.

Wetland flags 6 through 12 represent the vegetated limits of the tidal wetlands. CTDEEP has direct regulatory jurisdiction over activities occurring in tidal wetlands and/or waterward of the high tide line. If any construction activities or structure(s), in part or in whole, or any incidental work proposed in conjunction with the construction of structure(s) is proposed at or waterward of the high tide line, authorization from the CTDEEP's Land and Water Resource Division (LWRD - formally, Office of Long Island Sound Programs, OLISP) would be required to obtain authorization and permits from CTDEEP prior to construction in accordance with the Tidal Wetlands Act (CGS sections 22a-28 through 22a-35) and/or the statutes governing the placement of structures, dredging, and fill in tidal, coastal or navigable waters (CGS sections 22a-359 through 22a-363f, inclusive).

The limits of the vegetated tidal wetlands are visual identified by the landward boundary where the topography quickly rises in elevation creating a distinct ledge and or toe-of-slope.



FIGURE 1: WETLAND SKETCH – 67 KITETMAUG ROAD – MONTVILLE

COASTAL / TIDAL WETLAND LIMIT IS CTDEEP COASTAL JURISDICTIONAL LINE (CJL) IS SET AT ELEVATION 2.3' NAV88



Photo 1: Unnamed Freshwater Watercourse Wetland Flags 1 to 6



Photo 2: Boundary of Tidal Wetland & Freshwater Wetland at WF #6

Wetland Delineations

Wetland Evaluations

Soil Evaluations

Soil Classification

The soils identified on the site are a refinement of the NRCS Soil Survey (Attached)

Wetland soils

The soils within the freshwater watercourse are classified as poorly drained alluvium. The stratified sands and gravels accumulate in and cover the interstitial spacing of the large boulders that define the perennial watercourse channel.

The poorly drained soils associated with the tidal CTDEEP regulated wetland boundary are mapped and classified as West Brook mucky peats. These sandy organic soils are inundated daily by the tide and are associated with the low-salt marsh habitat.

Upland soils

The upland soils are mapped and classified as excessively well drained Hinckley sands and gravels. This water sorted stratified sands are generally well suited for development.







































Photo #3 : Existing Uplands

Soil Map—State of Connecticut
(67 Kiteaug Rd)



Soil Map—State of Connecticut
(67 Kiteaug Rd)

MAP LEGEND

Area of Interest (AOI)	 Area of Interest (AOI)	 Spoil Area
Soils	 Soil Map Unit Polygons	 Stony Spot
	 Soil Map Unit Lines	 Very Stony Spot
	 Soil Map Unit Points	 Wet Spot
Special Point Features		 Other
 Blowout		 Special Line Features
 Borrow Pit	Water Features	
 Clay Spot	 Streams and Canals	
 Closed Depression	Transportation	
 Gravel Pit	 Rails	
 Gravelly Spot	 Interstate Highways	
 Landfill	 US Routes	
 Lava Flow	 Major Roads	
 Marsh or swamp	 Local Roads	
 Mine or Quarry	Background	
 Miscellaneous Water	 Aerial Photography	
 Perennial Water		
 Rock Outcrop		
 Saline Spot		
 Sandy Spot		
 Severely Eroded Spot		
 Sinkhole		
 Slide or Slip		
 Sodic Spot		

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: Data not available.

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
38C	Hinckley loamy sand, 3 to 15 percent slopes	1.6	99.4%
W	Water	0.0	0.6%
Totals for Area of Interest		1.6	100.0%

Please do not hesitate to contact me at itcole@gmail.com or (860) 514-5642 if you have any questions or need any additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ian T. Cole".

Ian T. Cole
Professional Registered Soil Scientist
Professional Wetland Scientist #2006