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October 4, 2021

Town of Somers
Inland Wetlands & Watercourses
Somers, CT.

Re : Revised Wetland Report - Function and Value Assessment, Turnpike & Woods Road Map 11 Lot 148 Zone A-1

Dear Commissioners:

I have conducted a wetland delineation for the above referenced address for JR Russo of East Windsor, CT. This report will address the soils as well as the functions and values associated with the identified wetlands. Potential impacts to the wetlands associated with the proposed development shown on Russo job #2021-030 Revised 9-22-21 will be considered in this report.

Existing Conditions

A 3 bedroom home near flagging numbers WB 47- WB 49 house is proposed within the Wetland Regulated Are.

This activity is proposed on a well established agricultural hay field southeast of the intersection of Turnpike and Woods Road in the Town of Somers. The soils within this field are considered disturbed soils as a result of past and present farming activities.

Wetlands

The wetland boundary is accurately shown as WB 45 to WB 52.

The wetlands soils observed within the hayfield are a disturbed and filled Catden and Freetown complex.

The undisturbed wetlands to the east identified within the well wooded area are a high function and value Catden and Freetown complex.

The Catden series consists of very deep, very poorly drained soils formed in highly decomposed woody and herbaceous organic materials in depressions on till plains, lake plains, outwash plains, and flood plains.

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The Freetown series consists of very deep, very poorly drained organic soils formed in more than 130 centimeters of highly decomposed organic material. They are commonly in depressions or on level uplands and alluvial plains

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The wetland area(s) have been flagged on the down gradient side of the proposed activity

The wetlands have been field delineated in accordance with the standards of the National Cooperative Soil Survey and the definition of wetlands as found in the Connecticut General Statutes, Chapter 440, Section 22A-38 and the Federal wetland criteria.

This delineation is not intended to be used for soil mapping but to identify the wetland soils relative to the development and management of this parcel. The wetland boundaries have been marked with pink and blue flagging as shown on plan.

Wetland Functions and Values

The wetland complex was inspected to determine wetland functions and values utilizing the Army Corps. of Engineers methodology as outlined in "The Highway Methodology Workbook Supplement". These wetlands exhibited the following wetland functions and values with the corresponding rationale:

Disturbed wetland Complex within Field

Ground water recharge and discharge: potential for and public or private wells occur downstream of the wetland, wetland is underlain by sandy soils present in or adjacent to the wetland. This area has the potential to provide limited ground water recharge

Nutrient removal: Shallow water and limited open water habitat exists within the complex beyond the agricultural field. Overall potential for sediment trapping exists in the same areas. Saturated soils exist for much of the season, ponded water may be present in the wetland. Grass and other vegetation is present. These wetlands within the field utilize and immobilize excess nutrients transported/deposited by developed areas up gradient.

The wetlands were also examined for wetland values (recreational, educational/scientific, visual/aesthetic, or uniqueness/heritage values) and the following values were noted with their rationale:

None found

Wooded Undisturbed Complex

Ground water recharge and discharge: potential for public or private wells occur downstream of the wetland, wetland is underlain by stratified drift and gravel or sandy soils present in or adjacent to the wetland. This wetland contributes to the ground water system. Are shows signs of variable water levels.

Flood flow alteration: Effective flood storage existents within the complex. Wetland contains hydric soils which are able to absorb and detain water, wetland exists in a relatively flat area that has flood storage potential, wetland has ponded water, and signs are present of variable water level, wetland receives and retains overland or sheet flow runoff from surrounding uplands. In the event of a large storm, this wetland receives and detains excessive flood waters and provides storage which can minimize flooding to the surrounding area.

Sediment/toxicant retention: potential sources of sediment may be in the watershed above the wetland, opportunity for sediment trapping by slow moving water and deep water habitat are present in this wetland, fine grained mineral or organic soils are present, long duration water retention time is present in this wetland, public or private water sources occur downstream, effective floodwater storage in wetland is occurring, areas of impounded open water are present, channelized flows have visible velocity decreases in the wetland, diffuse water flows are present in the wetland, wetland has a high degree of water and vegetation interspersion, and dense vegetation provides opportunity for sediment trapping and/or signs of sediment accumulation by dense vegetation is present.

Nutrient removal: Shallow water and limited open water habitat exists within the complex beyond the watercourse. Overall potential for sediment trapping exists in the same areas. Saturated soils exist for most of the season, ponded water may be present in the wetland, organic/sediment deposits are present, dense vegetation is present with emergent vegetation and/or dense woody stems dominant, water retention/detention time in this wetland is increased by thick vegetation and other dense herbaceous and shrub vegetation in wetlands utilize and immobilize excess nutrients transported/deposited by developed areas upstream.

Production export: Wildlife food sources grow within the wetland beyond the watercourse, evidence of limited wildlife use found within this wetland, higher trophic level consumers may be utilizing this wetland, a few high vegetation density species are present, wetland exhibits moderate degree of plant community structure/species diversity, wetland contains flowering plants that are used by nectar-gathering insects.

Sediment/shoreline stabilization: indications of siltation from Turnpike Road is present, topographical gradient exist in wetland, potential sediment sources are present up gradient, a wide wetland (>10') borders the backside of the standing and moving water within the complex. Some moderate flow velocities can occur in the complex during and after significant storm events, dense vegetation and energy-absorbing emergents and/or shrubs border the wetland area to protect water quality.

Wildlife habitat: Wetland is fragmented by significant development both upstream and downstream, however, upland immediately surrounding this wetland is undeveloped and will remain so after completion of this project. No significant animal signs observed (tracks, scats, nesting areas, etc.), wetland contains a population of insects and amphibian populations.

The wetlands were also examined for wetland values (recreational, educational/scientific, visual/aesthetic, or uniqueness/heritage values) and the following values were noted with their rationale:

Educational/scientific value: There are a diversity of wetland classes present, any wetland is considered valuable wildlife habitat, there is potential for education within this site.

Visual/aesthetic value: There are acres of wetlands and a diversity of vegetative species in view from primary viewing locations, wetland is not easily accessed but considered to be valuable wildlife habitat.

Conclusions:

In summary, it is my opinion that the wetland area within the field is not a functioning wetland ecosystem and exhibit only two wetland functions and no wetland values.

The ground water recharge – discharge and nutrient removal functions exist on all upland soils as well.

The wetland area that warrants the significant protective measures exist beyond the field and disturbed areas.

Goertextile silt fence and / or hay bales are proposed down gradient of all proposed activity and up gradient of the wetland area(s). Proper installation and maintenance will adequately protect the wetland resources.

The closest proposed building is 54 feet from the undisturbed wooded wetland. The soils in the area of the proposed disturbance are very permeable sand and gravel (based on test pit data provided by Steven Jackobs RS). These permeable soils will effectively reduce overland flow of surface water to the wetland area(s).

In my opinion, as long as adequate sediment controls are in place, no substantial adverse wetland impact will result from this proposed construction.

If you have any questions concerning the wetland function assessment or this report, please feel free to contact me.

Sincerely,



**Richard Zulick
Certified Forester and Soil Scientist
Member SSSSNE**