***Datum Engineering and Surveying LLC***
***Richard Zulick***
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*400 Nott Highway*
*Ashford, CT*
*06278*

*January 2, 2022*

*Town of Somers*
*Inland Wetlands & Watercources*
*Somers, CT.*

*Re: Wetland Report - Function and Value Assessment, 279 Billings Road , Somers Map 02 Lot 25 & 25D Zone A-1*

*Dear Commissioners:*

*I have conducted a wetland delineation on November 19, 2021 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 #2021-091 will be considered in this report.*

***Existing Conditions***

*Activity is proposed within an old overgrown agricultural hay field located northeast of Billings Road in the Town of Somers. The soils within this field are considered disturbed soils as a result of past farming activities.*

*A very small wetland depression exists within the agricultural field. A large significant wetland exists to the east of the existing field. A pond exists on abutting property to the south.*

***Proposed Activity***

*A 3 bedroom home and a barn are proposed near an existing abutting pond and flagging numbers WB 1 - WB 16. These buildings are proposed within the Town of Somers 100 foot Wetland Regulated Area.*

***Wetlands***

*The wetland boundaries are accurately shown as an existing pond located south of the proposed house, and a proposed barn located southwest of WB 1 – WB 5 and west of WB 6 – WB 16.*

*The wetlands soils have been identified through extensive auguring and consist of the Raypol Soil Series.*

*The Raypol series consists of very deep, poorly drained soils formed in loamy over sandy and gravelly outwash. They are nearly level to gently sloping soils in shallow drainageways and low-lying positions on terraces and plains. The soils have a water table at or near the surface much of the year. Permeability of the Raypol soils is moderate in the surface layer and subsoil and rapid or very rapid in the substratum*

*TAXONOMIC CLASS: Coarse-loamy over sandy or sandy-skeletal, mixed, active, acid, mesic Aeric Endoaquepts*

*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: ( WB 6 - WB 16 )***

*The wetland complex located to the east and identified as **WB 6 – WB 16** 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 and Brook exhibited the following wetland functions and values with the corresponding rationale:*

***Ground water recharge and discharge:** Potential for and 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, wetland is associated with a small intermittent watercourse, quality of water associated with the wetland is high and wetland shows signs of variable water levels.*

***Flood flow alteration**: the area of this wetland is small relative to its watershed. Effective flood storage is small or non-existent upslope of or above the wetland. 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 water from the up-gradient area. Valuable properties, structures, or resources are located in or near the floodplain down gradient of the wetland and receive protections associated with this wetland.*

***Sediment/toxicant retention:** potential sources of sediment are in the watershed above the wetland. Opportunity for sediment trapping by slow moving water and deeper 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. Small 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.*

***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. 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:*

***Visual/aesthetic value:*** *There are acres of wetlands, a watercourse and a diversity of vegetative species in view from a few viewing locations. Wetland is considered to be valuable wildlife habitat.*

***Conclusion:***

*In summary, it is my opinion that this wetland area is a functioning wetland ecosystem and exhibit wetland functions and wetland values that warrant appropriate protections.*

***Wetland Functions and Values: ( WB 1 - WB 5 )***

*The small wetland complex located to the east and identified as* ***WB 1 – WB 5*** *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 and Brook exhibited the following wetland functions and values with the corresponding rationale:*

***Limited Ground water recharge :*** *Potential for and public or private wells occur down gradient of the wetland, wetland is underlain by stratified drift and gravel or sandy soils present in or adjacent to the wetland, wetland provides very limited recharge of groundwater.*

*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*

***Conclusions:***

*In summary, it is my opinion that the small* ***disturbed*** *wetland area within the field is* ***not*** *a functioning wetland ecosystem and exhibit 1 wetland functions and no wetland values.*

*This small wetland is the result of water ponding in a lower elevation depression within an old agricultural field. This ponding effected the soil properties through the years , such that, soil colors and features meet the hydric criteria within the State of Connecticut.*

***General Conclusion:***.

*In my opinion, if adequate sediment controls are in place, no substantial adverse wetland impact will result from the proposed construction represented within the above referenced plan.*

*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*

*22-001*