

Wetland Report

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Seamus Moran, Professional Engineer
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232 Greenmanville Avenue, Suite 201
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December 15, 2022

RE: INLAND WETLAND SOILS AND WATERCOURSES INVESTIGATION AND
REPORT 446 HOPEMEADOW STREET, SIMSBURY CT

Dear Mr. Moran:

On October 23, 2022 I conducted a field site visitation to the property referenced above to evaluate the existing wetlands and watercourses that may be on the site and any that may exist adjacent to the site. You asked me to provide you with information regarding potential impacts to these resources based on your proposed development plans.

Type of Wetland:

My field site visit revealed that there are no wetlands located on the site, and the site is currently being maintained as an existing residential lawn with established mature landscaping. There are wetlands located directly north of the site, down a steep embankment, associated with Second Brook. The limits of the off-site wetland are delineated on Simsbury Wetland Map G-13. These offsite wetland soils are classified as a poorly drained and very poorly drained Ridgebury, Leicester and Whitman soil. This soil complex is mapped together because their similar physical characteristics, use and management. The wetlands along the brook support forested swamp vegetation. The 100-foot upland review area ("URA") extends onto the site.

Functions and Values of Off-Site Wetland:

Inland wetland soils and watercourses have different wetland functions and values primarily depending upon their size, location on the landscape and what they are being used for. There are 10 general wetland functions that these systems have the potential to provide.

1. Groundwater Recharge/Discharge
2. Flood flow Alteration (storage and discharge)
3. Fish and/or Shellfish Habitat
4. Sediment/Toxicant/Pathogen Retention
5. Nutrient Removal/Retention/Transformation

6. Production Export (process related to the food web and the breakdown of organic matter in aquatic systems)
7. Sediment/Shoreline Stabilization
8. Wildlife Habitat
9. Endangered Species Habitat
10. Human Use Values/ Historic Significance

The wetland system along the Second Brook corridor is of high value and performs many functions including, ground water recharge/discharge, flood flow storage and discharge, fin fish habitat, sediment retention, product export, sediment retention and wildlife habitat.

Proposed Construction Activities:

There are no proposed construction activities, and no filling or grading of the off-site wetlands and/or watercourses. The URA does extend onto the site. The proposed construction activities within the on-site URA include:

1. clearing of existing vegetation,
2. grading,
3. stormwater improvements
4. installation of parking lot, guardrail, retaining wall, site lighting and landscaping.

The northerly *limit of disturbance (grading)* for the site will be 52± feet from the edge of the wetland, and 105± feet from the centerline of Second Brook. The northerly edge of the *retaining wall* will be 63± feet from the edge of the wetland, and 115± feet from the centerline of Second Brook. The northerly limit of the *timber guard rail* will be 66 ±feet from the edge of the wetland, and 118± feet from the centerline of Second Brook.

Impacts of Construction Activities:

The key to any successful project is to eliminate the probability of any potential impacts due to erosion and sedimentation during construction. A comprehensive erosion and sedimentation plan was developed (Sheet SE-1 and Sheet SEN-1) and it is important that it be installed pursuant to the plan. Regular inspections will be done after significant storm events of more than 1 inch of rainfall in a particular storm event. With the implementation of the erosion and sedimentation plan there will be no impact to the off-site wetlands and watercourses.

Long Term Impact of Proposed Activities:

The Applicant should implement best management practices for de-icing the parking lot by using pretreatment of specific materials prior to a snow event, to limit impacts to groundwater. Pre-treatment of the parking lot prevents the snow from binding with the surface, thus using less de-icing material in the long run. Sand with a low mixture of calcium chloride is the best choice.

The proposed stormwater management plan will treat all water before it is discharged to the wetland. The proposed Planting Plan prepared by Thomas Graceffa, LA, includes

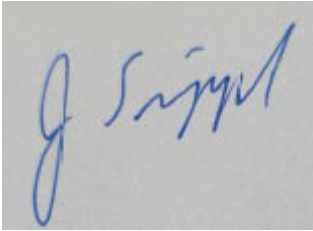
both native tree and shrub species which will have a long-term positive impact on the off-site wetland.

Conclusion:

In conclusion it is my professional opinion that the proposal represents the best feasible and prudent alternative in regards to direct and indirect, short-term and long-term impacts to the wetlands and watercourses. There will be no significant adverse impacts to the wetlands and watercourses, whether on-site or offsite, resulting from the proposed construction.

If you have any questions or require additional information, please contact me at the telephone number referenced above.

Very truly yours,

A handwritten signature in blue ink, appearing to read "J Sipperly", is shown on a light-colored background.

James Sipperly
Certified Soil Scientist, Society of Soil Scientists of Southern New England
Connecticut Wetland Scientist, Connecticut Association of Wetland Scientists