



- Soil & Wetland Studies
- Ecology • Application Reviews
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- Ecological Restoration & Habitat Mitigation
- Expert Testimony • Permitting

April 6, 2023

VIA E-MAIL

Loureiro Engineering Associates, Inc.
15 Thames Street
Suite 211
Groton, CT 06340

ATTN: Ms. Susan Marquardt, P.E., Project Manager

RE: SOILS INVESTIGATION
Northern Property Section
1761 Route 12, Gales Ferry (Ledyard), CT
REMA Job #23-2596-LED5

Dear Susan:

At your request, REMA ECOLOGICAL SERVICES, LLC (REMA), has prepared this brief letter to summarize the findings of our soils investigations within the northern section of the above-referenced site. Specifically, we investigated an area designated as “wet area,” on a plan entitled “*Property and Topographic Survey, prepared for Styron, LLC, Allyn’s Point Plant, 1737 & 1761 Military Highway – Route 12, Gales Ferry, Ledyard, Connecticut*” by CME Associates, Inc., and dated September 2, 2010 (Sheet 1 of 13).

The area in question is a depression in the landscape, measuring approximately 0.68 acres, which according to archival aerial photography was mined for sand and gravel in the early 1950s. Subsequently, several feet of fill materials have been placed over the bottom of the sand/gravel pit, consisting of what appears to be river dredge materials.



This area was first investigated by REMA on September 7, 2022, during the wetlands delineation effort conducted on the overall property. At that time, it was determined that this area did not contain regulated areas. REMA returned here on March 29, 2023, and logged a soil core at the lowest topographic section of the depressional area (see Photos 1 and 2, attached).

The soil core was advanced with a hand-held soil auger to 42 inches from the ground surface (see Figure 1, attached). Groundwater (free water) was encountered at roughly 36 inches from the surface, with limited moisture in the sandy soils above it. At 38 inches, dark gray, fine textured fill soils (i.e., silt loam) were encountered. Significant soil redoximorphic features (i.e., mottles) were not present in the soils from the ground surface to 20 inches, which would have indicated an active wetland moisture regime (e.g., poorly drained, very poorly drained). Based on observed soil characteristics the soils within the depressional area are moderately well drained.

Moreover, the vegetative community of this depressional area is not dominated by hydrophytes, with the exception of emerging jewelweed, which can also grow in moist areas. Dominant plant species in the understory included multiflora rose, wineberry, Morrow's honeysuckle, black cherry, garlic mustard, and Asiatic bittersweet.

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

Respectfully submitted,

REMA ECOLOGICAL SERVICES, LLC

A handwritten signature in black ink, appearing to read "George T. Logan". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

George T. Logan, MS, PWS, CSE
Professional Wetland Scientist
Registered Soil Scientist

Attachments: Figure 1, Annotated Photographs (1-2)

FIGURE 1: Location of Soil Test Hole in previously designated "Wet Area"
1761 Route 12, Gales Ferry, CT



Legend



Light Gray Canvas Base




0.0 0 0.02 0.0 Miles

This map is intended for general planning, management, education, and research purposes only. Data shown on this map may not be complete or current. The data shown may have been compiled at different times and at different map scales, which may not match the scale at which the data is shown on this map.

Notes

	SITE/LOCATION: 1737 & 1761 Route 12 Gales Ferry, CT	REMA JOB NO.: 23-2596-LED5	ANNOTATED PHOTO LOG
	INVESTIGATOR(S): George T. Logan, MS, PWS, CSE		
DATE: March 29, 2023	FACING: NORTHEASTERLY	PHOTO NO.: 1	
		<i>Lowest topographical portion of "wet area;" replete with invasive species (multiflora rose thicket in view) and dominated with non-hydrophytes</i>	

DATE: March 29, 2023	FACING: N/A	PHOTO NO.: 2	
		<i>Soil boring advanced to 42 inches; free water at 38"; this is a moderately well drained soil type.</i>	