

TES Environmental Consultants, LLC

February 5, 2021

Ref: TES JN 19-0142

Mr. Paul Delaney, LLS
Gate City Survey
1 Tara Boulevard, Suite 200
Nashua, NH 03062

Re: Daly Property; 190 Piscataqua Road, Durham; Tax Map 12, Block 7
Wetlands Delineation and Description

Dear Mr. Delaney:

TES Environmental Consultants, L.L.C. (TES) has prepared this letter report to address the request from Durham Conservation Commission for a report on the delineation and description of the wetlands on the above-referenced 1.6-acre subject parcel.

At your request, on September 24, 2019 I delineated the boundaries of wetlands on the Daly parcel. The wetland identification and delineation were performed according to the methodology presented in the Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1), January 1987 and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0, January 2012, US Army Corps of Engineers. This methodology requires the presence of indicators for the three parameters: hydric soils, hydrophytic vegetation and evidence of hydrology at or near the surface for 14 days during the growing season.

One contiguous wetland was identified on the property, situated to the north of the existing house, sloping gradually eastward towards the abutting parcel (Tax Map 12, Block 6, Lot 2). The boundaries of this wetland were flagged with pink and black striped surveyors tape numbered sequentially from WF 1 (Wetland Flag 1) through WF 29 along the western side of the wetland; WF 2-1 through WF 2-19 along the eastern side; and WF 3-1 through WF 3-4 around a small upland "island" within the northern section of the wetland. The northern section of the wetland drains onto the abutting parcel (Tax Map 12, Block 6, Lot 2) via sheet flow (no well-defined channel), and the southern portion drains onto that same parcel via a narrow intermittently-flowing channel.

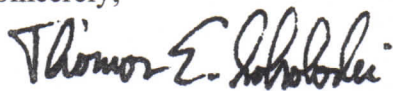
The site wetland is almost entirely forested, and would be best described as a forested swamp (Figure 1), classified under the U.S. Fish and Wildlife Service's wetland classification system (Cowardin et al., 1979) as Palustrine, Forested, Broad-leaved Deciduous, Seasonally Flooded (PFO1C). The dominant tree species in the wetland are red maple (*Acer rubrum*) and American elm (*Ulmus americana*); the most common shrub species are honeysuckle (*Lonicera* sp.), Japanese barberry (*Berberis vulgaris*), and poison ivy (*Toxicodendron radicans*). The most common herbaceous species are sensitive fern (*Onoclea sensibilis*), sedges (*Carex* spp.) and asters (*Symphyotrichum* spp.).

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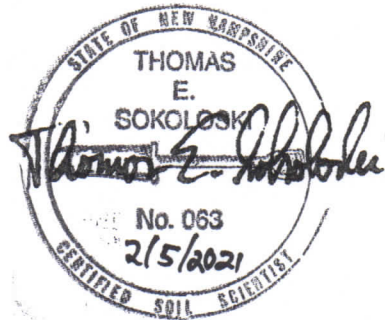
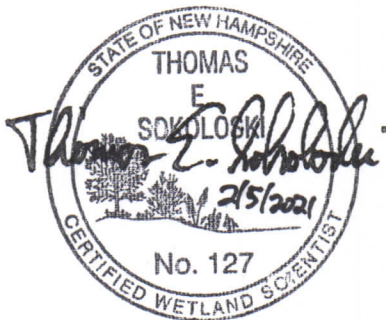
Soils within the wetland are poorly drained mineral soils similar to Scitico silt loam. This soil consists of a loamy surface underlain by a subsoil and/or substratum comprised of silt loam to silty clay loam that was deposited in marine environments in the distant past. On the day of the field visit (September 24, 2019), no surface water or groundwater was observed within the wetland, which is not unusual during that typically dry time of year within wetlands such as this one that are on the drier end of the wetland hydrology spectrum. Wetland hydrology was observed to be present within the wetland in the form of shallow tree roots and wetland drainage patterns (Figure 1), which include shallow channels formed by flowing water, exiting the southern portion of the wetland in an open channel (Figure 2).

If there are any questions regarding this report, please feel free to contact me directly.

Sincerely,



Thomas E. Sokoloski
New Hampshire Certified Wetland Scientist #127
New Hampshire Certified Soil Scientist #063



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FIGURE 1
View Northwest Towards Wetland from Southern End of Wetland Showing
Outlet Channel, House Out of View to Left of Photo (9/24/2019)



FIGURE 2
View North into Wetland Showing Typical Forested Swamp Vegetation,
Shallow Tree Roots and Wetland Drainage Patterns (9/24/2019)

Environmental Planning & Permitting

Soil & Wetland Investigations