



# A & D Klumb Environmental, LLC

October 8, 2020

Mr. Tom and Ms. Erin Daly  
5 Jasper Lane  
Nashua, NH 03063

RE: Wetland Report – 190 Piscataqua Road, Durham, NH

Dear Mr. and Mrs. Daly:

A & D Klumb Environmental, LLC (ADKE) delineated the wetlands on a portion of Tax Map 12 Lot 6-2 on October 1, 2020. The lot contains approximately 6-acres. The 4-acres located south of the existing gravel driveway were reviewed for wetlands. The portion of the property located north of the gravel driveway was not reviewed. The wetlands were delineated following the parameters of the US Army Corps of Engineers *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (2012).

Wetlands are defined by the US Army Corps of Engineers as: “Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.” Wetlands are typically determined by reviewing soils, vegetation, and hydrology.

The property boundary along the west side was found to be marked with orange flagging and flagged stakes. The eastern property boundary was not as clearly marked but some fence stakes were observed as well as planted cedar trees which appeared to line the property boundary. The southern end of the property is bordered by the tidal water of Little Bay.

The wetlands on the neighboring properties were recently delineated, and a portion of that wetland delineation extended onto the subject property across the western boundary. The wetland delineation completed for this parcel connected with the wetland delineation completed for the abutting parcel. Three wetland areas were identified within the review area described above. The wetland boundaries were delineated using pink WETLAND DELINEATION flagging and stake flags and labeled with alpha-numeric codes as described below.

Along the western property Wetland-A was marked A-1 through A-7 connecting with the neighboring delineation with A-1 and extending to Little Bay with A-7. The opposite side of the wetland was flagged B-1 from the bay to B-12 near the property boundary where it connects with the neighboring delineation. The soils sampled within the wetland met the F6 hydric soil indicator. The wetland is a depression in the landscape with dominant vegetation including Norway maple (*Acer platanoides*), American Elm (*Ulmus americana*), silver maple (*Acer saccharinum*), balsam fir (*Abies balsamea*), black cherry (*Prunus serotina*), American basswood (*Tilia americana*), Japanese barberry (*Berberis thunbergia*), green ash (*Fraxinus americana*), bittersweet (*Celastrus orbiculatus*), highbush blueberry (*Vaccinium corymbosum*), red maple (*Acer rubrum*), poison ivy (*Toxicodendron radicans*), glossy buckthorn (*Frangula alnus*), honeysuckle (*Lonicera* sp.), and multiflora rose (*Rosa multiflora*). The upland

vegetation within the wetland were supported by stilted roots showing their adaptation to growing within saturated soil conditions. The wetland is classified as Palustrine, Forested, Broad-Leaved, Deciduous, Seasonally Flooded/Saturated, Mineral (PFO1En).

A portion of the above described wetland appeared to flow from the neighboring property through a narrow channel at the southwest corner of the property. The neighboring wetland delineation marked this channel with pink and black striped flagging labeled TES WF 2-18 and WF 2-19 on the east side and TES WF 1 to WF 2 (off-site) on the west side, completed on 9/16/2019. These flags mark the correct wetland boundary and additional flagging was not installed.

A small, isolated wetland area was delineated just downslope of the well, within the yard, southwest of the house. The boundary of the wetland was marked C-1 through C-10. The soils within the wetland met the A11 hydric soil indicator. The vegetation was dominated by narrow-leaf cattail (*Typha angustifolia*), sensitive fern (*Onoclea sensibilis*), wrinkle-leaf goldenrod (*Solidago rugosa*), late goldenrod (*Solidago gigantea*), narrow-leaf goldenrod (*Euthamia graminifolia*), lady fern (*Athyrium angustum*), various non-flowering rushes, and poison ivy. The wetland is classified as Palustrine, Emergent, Persistent, Seasonally Flooded/Saturated, Mineral (PEM1En).

No other wetlands were found within the area reviewed. The tidal-water boundary was not delineated. There is a significant topographical break indicating the location of the tidal-water jurisdiction in relation to the adjacent uplands. Included are photographs of the wetlands and the wetland sketch map.

The City of Durham maintains a Wetland Conservation Overlay District (Article XIII of the Zoning Ordinance). The property appears to be in the Residence C Zone and therefore 100-foot buffers are required around all non-tidal wetlands except isolated wetlands less than 3,000-square feet that are not a vernal pool. Impacts to wetland buffers may require review and permitting from the City. The full Article should be reviewed for accurate setback information. Only a brief portion of the article is described in this paragraph. All direct wetland impacts should be avoided and would need to be permitted through the NH DES Wetlands Bureau. Please contact me with any questions regarding this wetland delineation.

Sincerely,



Audra L. Klumb NH CWS #222  
President

References:

Durham NH Zoning Regulations and Zoning Map. Accessed 10/8/2020 at:  
<https://www.ci.durham.nh.us/planning/zoningregulations>

Environmental Laboratory. (1987). "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Environmental Laboratory. 2012. "*Army Corps of Engineers Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, (Version 2.0)*" ERDC/EL TR-12-1, U.S. Army Engineer Research and Development Center, Vicksburg, MS.  
[http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/reg\\_supp/NCNE\\_supp2.pdf](http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/reg_supp/NCNE_supp2.pdf)

Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 wetland ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X downloaded from U.S. Army Corps of Engineers 2016. National Wetland Plant List, Version 3.3 [http://wetland\\_plants.usace.army.mil/](http://wetland_plants.usace.army.mil/)

Munsell Soil Color Charts 2009., Revised, Printed in 2012. Grand Rapids, MI

United States Department of Agriculture Natural Resources Conservation Service. 2016. *Field Indicators of Hydric Soils in the United States, A Guide for Identifying and Delineating Hydric Soils, Version 8.0*, L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils



Photo 1. View south into wetland A/B at the western property boundary.



Photo 2. View north into wetland A/B near where the wetland joins Little Bay as a narrow channel.



Photo 3. View northeast of the channel at the end of wetland A/B.



Photo 4. View west at the southwest corner of the property where the adjoining wetland delineation crossed the property boundary.



Photo 5. View north of the east end of Wetland-C.



Photo 6. View west of Wetland-C.