

By Email: ctirone@ci.reading.ma.us

August 28, 2019

Ms. Rebecca Longley
Chair
Conservation Commission
16 Lowell Street
Reading, MA 01867

CDCI File #: 18-10120
Notice of Intent (DEP File#: 270-0714)
135, 139 & 149R Howard Street
Reading, MA 01867

Dear Ms. Longley, and through you to the Commission:

The Applicant for the project at 135, 139, and 149R Howard Street in Reading, Massachusetts (DEP File#270-0714), as well as the Project Team consisting of Civil Design Consultants, Inc. (CDCI) and Norse Environmental Services, Inc. (Norse), has received and reviewed the Peer Review of Notice of Intent (Report) prepared by Horsley Witten Group (HW) dated May 29, 2019.

This response letter is prepared to discuss the findings presented in the Horsley Witten Report to further the discussion about onsite wetland resource areas. We also offer additional comments to answer those made previously by abutters and MassDEP.

Respectfully, we also request a site visit so the entirety of the Commission, or some members, can view personally important facts about the soils in the areas in question to address uncertainty in the Horsley Whitten report. Horsley Whitten's report was not definitive, whereas our soil specialist's conclusions are quite definitive. Horsley Whitten may also see for themselves what perhaps was not clear on their first site visit, so their own report can be definitive.

Our client's legal counsel, Jamy Buchanan Madeja of Buchanan & Associates, advises that where the presence or absence of hydric soils is so important, it saves the Town and the applicant a great deal of unnecessary controversy and time if the local Commission has a chance to see for themselves the facts, focusing on the hydric soils issue, before making a decision about a proposal, so there is ample time to discuss conditions based on an agreed delineation, if possible, and not do both delineation and conditions discussions in one or more hearing sessions. In short, agreement on the determinative delineation facts will be helpful for all.

As noted in the Notice of Intent filed with the Conservation Commission, Norse Environmental carefully delineated onsite resource areas on August 20, 2018. These areas were **limited to bordering vegetated wetlands**, flagged as WFA-1 – WFA-21, in the northern portion of the subject parcels. HW describes this area as a "forested swamp" in the Report. An onsite drainage ditch was noted by Norse during their site evaluation, however **the ditch "does not have a preponderance of wetland vegetation or hydric soils"** and "onsite deep hole test pits exhibited an average estimated seasonal high-water table of 32-inches throughout the site." These facts **document the absence of hydric soils** necessary for regulated area delineation under the Wetlands Protection Act and the local

requirements. Norse's specific findings, inclusive of the above quotations, regarding this ditch are detailed in their letter, submitted to the Conservation Commission, dated December 18, 2018.

HW for the Town was retained through a Request for Proposal process with services defined in the Request for Proposal (RFP) dated March 7, 2019. General tasks in the RFP included performing a site evaluation, reviewing submission materials, preparing a summary report, meeting with the project engineer and Conservation Administrator, and presenting to the Conservation Commission during a public hearing. **Specific focus was placed on the drainage ditch** in the RFP document including noting herbaceous cover and expressing the pre-mature and inaccurate belief that the development is "likely to cut off ground water from the wetland, damage trees, leading to further instability of the drainage area." **It is our opinion that the facts found by Horsley Witten and Norse Environmental both document that the proposed development does not cut off ground water from the areas which are regulated wetland resource areas or damage trees in regulated resource areas.**

The HW Report is divided into several sections: Site Visit, Wetlands Review, Notice of Intent, Stormwater Review, and Summary. Supplemental information is also provided. This response letter will specifically focus on the Wetlands Review portion of the Report as the findings in that section are not definitive.

Under the Wetlands Review heading, HW discusses the previously flagged bordering vegetated wetland, a new, potentially jurisdictional, isolated vegetated wetland and the onsite drainage ditch (referred to as a "drainage channel" by HW in the Report).

Bordering Vegetated Wetland (BVW)

HW's review of the BVW flagged by Norse in August of 2018 included observing the vegetation and soil conditions in the area, noting a variety of plants commonly found in wetlands. The Report also specifically notes that hydric soils are present in the delineated boundary and not found in adjacent areas. To our knowledge, there is no difference of opinion regarding the BVW flaggings for this BVW area.

Isolated Vegetated Wetland (IVW)

Further investigations of the site identified a potentially jurisdictional IVW in the northwest corner of the property. The area was reviewed by both HW and Norse with flag locations agreed upon by both parties. This wetland was identified based on observed vegetation and the presence of hydric soils. HW makes multiple references to both vegetation and soils when describing the wetland indicators used to determine the location of this wetland area. Categorizing this area as jurisdictional will require locating the flags and determining if the square footage exceeds 500-ft.

Drainage Channel

HW's review of the drainage channel and adjacent upstream area consisted of reviewing the NRCS soil profile submitted as part of the Notice of Intent and comparing it to onsite soil conditions, and observing the plant community.

HW's conclusions about the channel and surrounding area were not supported in the facts cited in the Report. They concluded a jurisdictional wetland exists in the western portion of the site and that this "wetland" is up-gradient of and connects to the drainage channel. They also stated "the drainage channel connects the new wetland to the previously flagged wetland due to a hydraulic gradient and is likely an intermittent stream. The stream has a jurisdictional inland bank with adjacent BVW."

We respectfully ask that Horsley Witten and the Conservation Commission do another site visit with full facts available as we believe HW will also conclude differently upon seeing the facts in light of the law of what is and is not regulated wetland area.

Unlike the analysis of the previously flagged BVW and the new IVW, the presence of hydric soils was not used by Horsley Witten as part of determining the existence of any possible BVW in the western portion of the site nor near the drainage channel. **HW allocates a considerable amount of this section in the Report to the soil profile of the area, but does not conclude hydric soils are present.** The boundary of the previously flagged, northern wetland was finalized by Norse and HW when the limits of the hydric soils were determined. We respectfully ask HW to look at the law on use of hydric soils as determinative and revise their report accordingly, hopefully after a site visit with the Conservation Commission.

For ease of reference, attached in the Appendix of this document are excerpts of both the State and Town's regulations regarding the importance of hydric soils.

To summarize, however, the State's Wetland Protection Regulations' definition of a "Bordering Vegetated Wetland" strongly emphasizes "saturated or inundated conditions" and a boundary delineation beginning where 50% or more of the vegetational community consists of wetland indicator plants. See 310 CMR 10.55(2).

We agree with HW that there are some wetland indicator plants upgradient of the drainage ditch however **the site does not have a predominance or greater than 50% wetland plants. In addition, the ESHW is recorded at 32" and there are no hydric soils.**

The Town of Reading's Wetland Protection Regulations state that a resource area's requisite characteristics include "substrate in the uppermost foot [that] is predominantly undrained hydric soil [which] is saturated with water or covered by shallow water at some time during the growing season of each year." We have concluded that the area upgradient of the drainage ditch does not exhibit hydric soils or saturated substrate or surface water during the growing season.

Furthermore, Reading's Wetlands Regulations state that Fresh Water Wetlands must meet "all of the other criteria of 310 CMR 10.55..." It is our conclusion that the area upgradient of the drainage ditch does not meet all of the other criteria of 310 CMR 10.55. We find this conclusion for several reasons. First, there are no hydric soils upgradient of the drainage ditch. The ESHW was observed at 32 inches. Second, the area upgradient does not have a water table at or near the surface and the land is not covered by shallow water. Third, the area does not have a predominance of wetland vegetation or hydric soils.

As described and depicted in the Report, a test pit, excavated and readily available for review, was not fully investigated. Neither Photo 6 nor Photo 7 display soils that could be classified as hydric. It appears that both Norse's analysis and that of HW agree that hydric soils are not present in this area. Legally, this is definitive: no hydric soils, no regulated resource area.

Onsite topography in the location of the new BVW is consistent with that of the surrounding onsite and offsite areas. There are no distinct changes in slope or significant depressions. The test pit excavated in the vicinity (See Photo 6 in the Report) displayed an estimated seasonal high-water table consistent with other test pits excavated throughout the site.

Further, the test pit depicted in Photo 6 was excavated well in advance of the site inspection, allowing groundwater ample time to seek a final level. This photograph clearly displays groundwater approximately 24-inches below the surface, which is **not indicative of a wetland condition**.

Classifying the channel as an intermittent stream is contingent upon meeting the definition provided in the Wetland Protection Act (WPA). This definition includes the following key characteristics (quotations denote text from the Wetlands Protection Act):

- There must be a body of running water conveyed in a channel due to a hydraulic gradient.
- The channel must flow “within, into or out of an Area Subject to Protection.”
- Intermittent streams are classified as streams except for “portions upgradient of bogs, swamps, wet meadows and marshes”.

At a minimum, the presence of the new BVW in the western portion of the site was not determined based on the same indicator thresholds used for the previously delineated BVW and the new IVW. HW identified this BVW based solely on the presence of wetland indicator vegetation. The Wetlands Protection Act requires a BVW to have both wetland indicator plants and saturated or inundated soil conditions. Similarly, the definition of a wetland in the Town of Reading Wetlands Protection Regulations states that wetlands have either a high water table or land covered by shallow water. The Project Team is certain that this area is not a regulated resource area, based on all facts and law.

HW indicates that a hydraulic gradient “likely”, but not categorically, renders the channel a jurisdictional inland bank. While a hydraulic gradient does exist, evidence of water flow is consistent with and directly in response to precipitation. Were the presence of the new, upgradient resource area discounted due to lack of compliance with local and State regulations, the channel would be non-jurisdictional as the entirety of the channel is upgradient of a swamp. HW describes the previously delineated wetland as a “forested swamp” in the *Wetland Review – Bordering Vegetated Wetland* section of the Report.

The designation of the drainage channel has been a source of discussion since project inception. HW's report does not provide a clear determination on the matter either, but rather, only offers additional considerations. A hydraulic gradient conveying water through a channel between an up- and downstream Area Subject to Protection fully meets the definition of an intermittent stream. The Report, however, describes the channel as “likely” an intermittent stream and the new BVW as a “wetland plant-dominated community.” **Both of these descriptions fall short of definitively stating that the channel is an intermittent stream and the new BVW area is a wetland.** Regarding BVW in particular, the presence of a plant community does not by itself constitute a wetland, but **requires the presence of hydric soils and/or water.**

Flagging at the new, western BVW was not placed at the time of the site visit. In the Report, HW recommends that the Applicant “delineate the extent of the wetland soils and hydrophytic vegetation and the extent of the inland bank.” As discussed with Conservation Administrator Charles Tirone, the Applicant and Norse do not agree that a wetland is present in this location and, therefore, cannot place these flags. HW subsequently provided a price proposal to do so. It is important to note, however, that HW states that the extent of wetland soils shall be considered during this flagging effort, but no reference to wetland soils is made in this section of the Report. Soils analysis is limited to disputing the presence of Haven Series soils and Photo 6 and Photo 7 **directly refute the presence of wetland soils.**

The project team understands that it is difficult to make fact and law based decisions when there are abutters who have become used to not having other homes in their area and would prefer no

construction occur at all. However, the facts and law have to be the basis for decision making under the Wetlands Protection Act (and local law).

We respectfully request a site visit so the facts can be reviewed and Horsley Witten can be given the chance to update their report. This meeting will serve to inform both the project stakeholders and the Town Administration of the intent and rationale behind the Report and to continue the project review process as expeditiously as possible.

We appreciate the opportunity to review and comment on the report. If you have any questions or comments, or require additional information, please do not hesitate to contact this office.

Very Truly Yours,

CIVIL DESIGN CONSULTANTS, INC.



Andrew B. Street, P.E.
Civil Engineering Manager

NORSE ENVIRONMENTAL SERVICES, INC.



Maureen Herald

Copy to: Infrastructure Holdings LLC
CDCI File#: 18-10120
MADEP NERO

Appendix

Massachusetts Wetland Protection Regulations, 310 CMR 10.00 et. seq.

10.55(2) Definition, Critical Characteristics and Boundary.

- (a) Bordering Vegetated Wetlands are freshwater wetlands which border on creeks, rivers, streams, ponds and lakes. The types of freshwater wetlands are wet meadows, marshes, swamps and bogs. Bordering Vegetated Wetlands are areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The ground and surface water regime and the vegetational community which occur in each type of freshwater wetland are specified in M.G.L. c. 131, § 40.
- (b) The physical characteristics of Bordering Vegetated Wetlands, as described in 310 CMR 10.55(2)(a), are critical to the protection of the interests specified in 310 CMR 10.55(1).
- (c) The boundary of Bordering Vegetated Wetlands is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist. Wetland indicator plants shall include but not necessarily be limited to those plant species identified in the Act. Wetland indicator plants are also those classified in the indicator categories of Facultative, Facultative+, Facultative Wetland-, Facultative Wetland, Facultative Wetland+, or Obligate Wetland in the National List of Plant Species That Occur in Wetlands: Massachusetts (Fish & Wildlife Service, U.S. Department of the Interior, 1988) or plants exhibiting physiological or morphological adaptations to life in saturated or inundated conditions.
 - 1. Areas containing a predominance of wetland indicator plants are presumed to indicate the presence of saturated or inundated conditions. Therefore, the boundary as determined by 50% or more wetland indicator plants shall be presumed accurate when:
 - a. all dominant species have an indicator status of obligate, facultative wetland+, facultative wetland, or facultative wetland- and the slope is distinct or abrupt between the upland plant community and the wetland plant community;
 - b. the area where the work will occur is clearly limited to the buffer zone; or
 - c. the issuing authority determines that sole reliance on wetland indicator plants will yield an accurate delineation.
 - 2. When the boundary is not presumed accurate as described in 310 CMR 10.55(2)(c)1.a. through c. or to overcome the presumption, credible evidence shall be submitted by a competent source demonstrating that the boundary of Bordering Vegetated Wetlands is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist. The issuing authority must evaluate vegetation and indicators of saturated or inundated conditions if submitted by a credible source, or may require credible evidence of saturated or inundated conditions when determining the boundary. Indicators of saturated or inundated conditions sufficient to support wetland indicator plants shall include one or more of the following:

- a. groundwater, including the capillary fringe, within a major portion of the root zone;
- b. observation of prolonged or frequent flowing or standing surface water;
- c. characteristics of hydric soils.

Town of Reading Wetland Protection Regulations – August 2016

Section 2: General Provisions

C. Jurisdiction

1. Areas Subject to Protection under the Bylaw (Resource Areas):
Consistent with 310 CMR 10.55(2)(c)1 and 2, any fresh water wetland including marsh, meadow, or bog, that supports a preponderance of hydrophytic vegetation; the substrate in the uppermost foot is predominantly undrained hydric soil and the substrate is saturated with water or covered by shallow water at some time during the growing season of each year; any creek, river, stream, pond (including vernal pool), or lake whether permanent or intermittent; any land under water bodies; any land subject to flooding; and any riverfront area.

Section 3: Performance Standards for Resource Areas

C. Fresh Water Wetlands

1. Because of the history, geography, geology and hydrology of Reading some wetlands may not qualify for state protection under 310 CMR 10.55 due to being isolated or disconnected from water bodies. These will be protected under the local By-Law provided that: (1.) they are 500 or more square feet in area, and (2.) they meet all of the other criteria of 310 CMR 10.55 with the exception of connection to water bodies.

Section 12: Definitions

Hydric Soil: soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic (oxygen-lacking) conditions in the upper part of the soil.

Wetlands: lands where the water table is usually at or near the surface, or where the land is covered by shallow water. This shall include swamps, wet meadows, bogs and marshes, creeks, streams, ponds, rivers, and lakes and bordering vegetated wetlands. Wetlands must have a preponderance of hydrophytic vegetation or have the following attributes:

1. The substrate in the uppermost foot is predominantly undrained hydric soil; and
2. The substrate is saturated with water or covered by shallow water at some time during the growing season of each year.