



April 10, 2020

**Email** [fournierl@hingham-ma.gov]

Ms. Loni Fournier, Senior Planner  
Hingham Conservation Commission  
210 Central Street  
Hingham, MA 02043

**Re: Peer Review Report  
0 Southeast Expressway  
Hingham, Massachusetts**

[LEC File #: TOHi\19-386.01]

Dear Members of the Commission:

LEC Environmental Consultants, Inc., (LEC) is pleased to submit this Peer Review Report associated with an Abbreviated Notice of Resource Area Delineation (ANRAD) Application filed by CHA on behalf of the Applicant and property owner, A.W. Perry/South Shore Industrial Park Trust. The ANRAD was filed on September 23, 2019 and seeks confirmation of the boundaries of Bordering Vegetated Wetlands (BVW), Isolated Vegetated Wetlands (IVW), Bank/Mean Annual High Water (MAHW) line to a perennial stream, and Bank to intermittent streams.

This review was performed under the *Massachusetts Wetlands Protection Act* (“WPA”; M.G.L. c. 131, s. 40), its implementing *Regulations* (“WPA Regulations”; 310 CMR 10.00), and the *Town of Hingham Wetlands Protection By-Law* (Article 22), and its associated *Regulations*. The wetland delineation review is also based on the *U.S. Army Corps of Engineers, Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Regional Supplement*, Version 2.0, (January 2012), and criteria outlined in the *Field Indicators for Identifying Hydric Soils in New England*, Version 4.0 (2018).

The following Field Review Summary and Discussion of Additional Jurisdictional Areas is based on site evaluations conducted by LEC on November 21, 2019 and November 26, 2019; February 20, 2020 and February 25, 2020; and review of the following documentation and plans submitted by the Applicant:

- Abbreviated Notice of Resource Area Delineation (ANRAD) Narrative
- *ANRAD Plan*, prepared by CHA, dated September 23, 2019
- *Revised ANRAD Plan*, prepared by CHA, revised through April 7, 2020

LEC Environmental Consultants, Inc.

[www.lecenvironmental.com](http://www.lecenvironmental.com)

12 Resnik Road  
Suite 1  
Plymouth, MA 02360  
508-746-9491  
508-746-9492 (Fax)

PLYMOUTH, MA

380 Lowell Street  
Suite 101  
Wakefield, MA 01880  
781-245-2500  
781-245-6677 (Fax)

WAKEFIELD, MA

100 Grove Street  
Suite 302  
Worcester, MA 01605  
508-753-3077  
508-753-3177 (Fax)

WORCESTER, MA

P. O. Box 590  
Rindge, NH 03461  
603-899-6726  
603-899-6726 (Fax)

RINDGE, NH



## Field Review Summary

On November 21, 2019 and November 26, 2019, LEC conducted an initial site evaluation to review existing site conditions throughout the 160-acre parcel, and to review the wetland delineation, including Bank flags to intermittent and perennial streams, and wetland flagging associated with BVW and IVW. LEC observed recently placed blue flagging throughout the site which were consistent with the flagging locations depicted on the *ANRAD Plan*.

LEC agreed with the location of the Bank flags associated with the intermittent streams (wetland flag series CH2, CH3, CH4, CH5, and CH6), and the centrally located perennial stream (wetland flag series CH1). No Bank flags were revised or relocated during the peer review; however, the stream status was further refined as discussed below.

LEC reviewed the BVW and IVW delineations based on an assessment of the vegetative community, soil conditions, and evidence of hydrology. Generally, the vegetative community and evidence of hydrology (soils saturated to surface and free water within 12 inches of the surface) were straightforward and conformed to the wetland boundaries. In some instances, wetland indicator plants extended into uplands and were correctly excluded from the wetland delineation when evidence of hydrology was not observed and the soil profile was identified as non-hydric.

The soil characteristics were more difficult to analyze in areas where spodic development and/or rocky conditions were present along the delineated BVW and IVW boundaries. Typically, the observed soil profiles within the BVWs and IVWs met Hydric Soil indicators A11: Depleted Below Dark Surface, and/or F6: Redox Dark Surface. Some areas upgradient of the delineated wetland boundaries also met these Hydric Soil indicators, contained wetland vegetation, and/or exhibited evidence of hydrology, which resulted in suggested revisions to the BVW and IVW boundaries. Revisions were demarcated in the field with LEC flagging tape.

LEC sketched the revisions onto the *ANRAD Plan* and sent the marked-up plans to the Agent and CHA via email on November 29, 2020. LEC suggested that CHA review the recommendations in the field and coordinate a site visit with LEC to further review the revisions, as necessary. CHA reviewed LEC's recommendations in the field, and returned to the site with LEC on February 20, 2020 and February 25, 2020 to review and revise the areas in need of further discussion. Once the revised flag locations were confirmed in the field, CHA hung blue surveyor's tape to demarcate the revised wetland boundaries. The revised boundaries were surveyed and accurately plotted on the *revised Plan*.

Overall, the peer review resulted in relocating approximately 140 wetland flags out of the approximately 1,400 total wetland flags on-site. CHA has a complete list of the revisions which can be made available, as necessary. LEC has reviewed the *revised ANRAD Plan*, prepared by CHA, revised through April 7, 2020, and it accurately depicts the agreed-upon revised flagging.



## **Additional Discussion of Jurisdictional Areas**

### Stream Status

Based on a discussion with the Loni Fournier, Commission’s Senior Planner, it came to our attention that the status of the CH1 stream located within the northern portion of the site required further analysis. The property owner at #100 Industrial Park Road recently received a 3-year extension of an existing Order of Resource Area Description (“ORAD”; DEP File #034-1271), which approved the northernmost section of the stream as intermittent. During the February 10, 2020 Public Hearing, the Commission reached a consensus that the portion of the stream on #100 Industrial Park Road is intermittent and acknowledged that at some point downstream, the stream turns perennial, though the exact location is uncertain.

In an email dated March 12, 2020, Loni Fournier described the situation to CHA and requested that they consider revising the stream designation. CHA reviewed the ORADs and associated documents for #100 Industrial Park Road and consulted with Loni Fournier. As a result, the revised plans depict the stream as intermittent from the northern portion of the site to the confluence of the CH4 intermittent stream channel at Bank flags CH 1-47W and CH 1-47E. The CH1 stream channel then becomes perennial as it flows south and continues off-site. LEC agrees with the revised depiction of the perennial stream and associated Riverfront Area.

### Vernal Pool Identification

The ANRAD Application noted that a Certified Vernal Pool (CVP) and Potential Vernal Pool (PVP) are mapped on the most recent NHESP Map (August 2017) within proximity to the H and I-series IVWs. The ANRAD Plans include a 100-foot “Vernal Pool Habitat” buffer extending around these pools. LEC also observed up to six inches of standing water within depressions located within the C-series BVW (notably downgradient of wetland flags C-15 through C-25 and C-40 through C-50) and the F-series IVW that exhibit potential Vernal Pool characteristics. The *Bylaw* provides protection for Vernal Pools, regardless of whether they are certified by the Massachusetts Division of Fish and Wildlife. Furthermore, the *Bylaw* defines the area within 100 feet of the Vernal Pool mean high water line as the Vernal Pool Protection Zone and prohibits activity or alteration within this area. The confirmation of Vernal Pool boundaries is not included with this ANRAD Application. As a result, the ORAD should include language noting that the confirmation of Vernal Pools is not included with the ORAD.

## **Summary**

It is LEC’s opinion that the revised BVW and IVW boundaries shown on the *revised ANRAD Plan* accurately depict the boundaries of Wetland Resource Areas subject to LEC’s review. As previously noted, Bank boundaries to the perennial and intermittent streams were not in need of revisions and are also shown accurately on the *revised ANRAD Plan*. Additionally, the 200-foot Riverfront Area associated with a perennial stream is accurately depicted on the *revised ANRAD Plan*. Lastly, Vernal Pool characteristics are present within a number of wetlands; however, confirmation of the presence/absence of Vernal Pools is not included with this ANRAD Application. As a result, LEC recommends that if the



Commission issues an ORAD, a special condition may be included which states, “*The confirmation of the presence/absence of Vernal Pools is not included with this ORAD. If a Notice of Intent Application is submitted for a proposed project located at this property, the mean high water line should be delineated and shown on site plans with associated Buffers under the Bylaw and the potential Vernal Pools should be evaluated in accordance with NHESP’s Guidelines for the Certification of Vernal Pool Habitat (2009).*”

Thank you for the opportunity to assist with this project. If you have any questions or require additional information regarding this proposal, please don’t hesitate to contact us at 508-746-9491.

Sincerely,

**LEC Environmental Consultants, Inc.**

Mark L. Manganello  
Assistant Director of Ecological Services

Claire A. Hoozeboom  
Wetlands Scientist