



December 2, 2025

Hingham Conservation Commission  
c/o Shannon Palmer, Conservation Officer  
Town of Hingham  
210 Central Street  
Hingham, MA 02043

Re: Peer Review of Request for Determination of Applicability  
Carlson Complex Pickleball Courts, 25 Bare Cove Park Drive, Hingham, MA

Dear Ms. Palmer and Commissioners:

The Horsley Witten Group, Inc. (HW) is pleased to provide this review of the Request for Determination of Applicability (RDA) and supporting materials submitted by CHA Consulting, Inc. on behalf of the Applicant, the Town of Hingham, for the above referenced site. The Hingham Conservation Commission (the “Commission”) is seeking to have HW confirm whether the wetland resource areas at this site are accurately delineated in accordance with the *Massachusetts Wetlands Protection Act* (M.G.L. Ch. 131 § 40) and its implementing Regulations (310 CMR 10.00) (the “WPA”) as well as under the Town of Hingham Wetlands Protection Bylaw, *General Bylaws of the Town of Hingham, Article 22*, and associated Hingham Wetland Regulations (the “local regulations”).

HW reviewed the Applicant’s RDA submission for confirmation of Bordering Vegetated Wetlands (BVW), and the Banks of an intermittent stream within an approximately 1.12-acre portion of the 16.1-acre parcel (Assessor’s Map 69, Parcel 44) (the “Site”). HW also reviewed the boundary of one Certified Vernal Pool (CVP #3588) present on the adjacent parcel (Assessor’s Map 58, Parcel 23), as a small portion of the vernal pool and its buffer zone extends onto the Site. An unnamed perennial stream is also present within the Site, identified as “Channel 2” or “CH2” in the RDA and on the existing conditions plan. However, this resource area was not included in HW’s on-site review as we understand that its Mean Annual High Water lines (MAHW)/Banks were previously confirmed under a separate an Order of Resource Area Determination (ORAD) issued by the Commission (DEP File No. 034-1509). The scope of this review is limited to the portions of wetland boundaries within the Site, located north of Bare Cove Park Drive, east of undeveloped forested area on the adjacent parcels, and west of an abandoned building within the referenced parcel.

## Materials Reviewed

HW has received the following materials for this review:

- Request for Determination of Applicability signed and dated October 6, 2025 (3 pages);
- Memorandum re: Wetland Delineation, Bare Cove Park, Hingham, MA, prepared by James B. Hall, PWS, CPESC, for resource areas delineated Fall 2024 and Spring 2025, including DEP Bordering Vegetated Wetland Delineation Field Data Forms (8 pages); and

- Carlson Complex, Existing Conditions Plan, Sheet C-100, prepared by CHA Consulting, Inc., dated October 2, 2025 (1 sheet).

The following report provides a summary of our review and recommendations for the Commission's consideration. HW's recommendations are numbered sequentially.

### Site Visit Observations

HW conducted a Site visit with the Conservation Officer, Shannon Palmer, Assistant Conservation Officer, Sylvia Schuler, and the Applicant's wetland delineator, James B. Hall of CHA Consulting, Inc. ("CHA"), on November 19, 2025, to observe conditions and review the resource area boundaries as shown on the existing conditions plan. Ms. Palmer and Ms. Schuler were in attendance for the majority of the investigation, and HW and the CHA finished the on-site review in their absence.

The Site consists of an undeveloped forested area adjacent to the abandoned structure noted above, with an associated parking lot between the building and Bare Cove Park Drive to the south. Bare Cove Park Drive forms the Site's southern boundary and separates it from additional town-owned property containing Bare Cove Park across the street. The Hingham Municipal Lighting Plant, Department of Public Works, and Sewer Department currently operate within additional buildings located farther east of the Site within the same parcel. The Bare Cove Fire Museum is on a separate parcel to the east of the Site, located east of its associated access drive off Bare Cove Park Drive and approximately 350 linear feet from the Site. Additional undeveloped forest is present between the Museum's access drive and the Site, covering a narrow strip of a third parcel, which connects to Beal Street northeast of the Site. The majority of the CVP is contained within this third parcel, which widens as it spans farther north. A USGS topographic map depicting the parcel boundaries and an aerial view of the Site and surrounding lands is provided in [Figures 1 and 2](#).

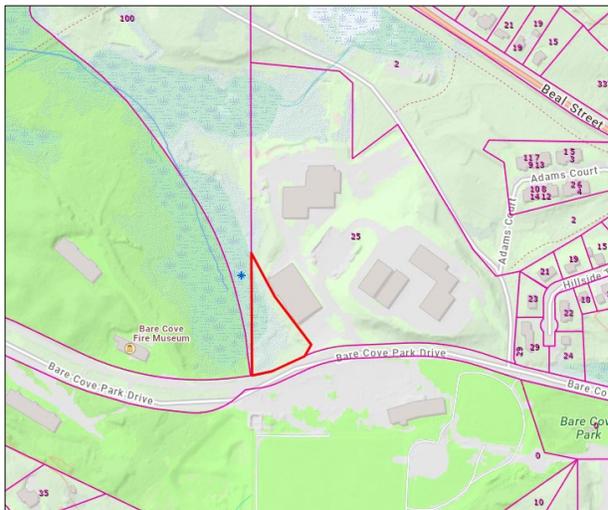


Figure 1. USGS topographic map; Site outlined in red.



Figure 2. Aerial view of the Project area; Site outlined in red.

During the on-site investigation to determine whether resource areas were accurately identified, HW followed the procedures consistent with the 2022 Massachusetts Department of Environmental Protection (MassDEP) manual entitled “*Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands*” as well as the WPA Regulations for wetland resource area identification, and the local regulations for wetland resource area identification, delineation, and field data collection.

All flagging revisions were agreed upon by HW and CHA during the field investigation. HW used a GPS unit to capture GIS coordinates for each revision detailed below, which provided positional accuracy of three feet or less; these coordinates were shared with the Applicant via email on November 24, 2025.

### Inland Bank

One intermittent stream (Channel 1) flows in a westerly direction through the Site until it converges with the unnamed perennial stream (Channel 2), which flows in a northwesterly direction off-site. Channel 1, identified as CH-1 on the existing conditions plan, was demarcated with blue flags numbered from CH1-1 to CH1-5, with flag CH1-5 located at the convergence of Channel 2.

HW found that the Banks of Channel 1 extended beyond flag CH1-1 as the channel bends to the southeast, and added three additional blue flags, labeled as CH1-1-HWA1, CH1-1-HWA2, and CH1-1-HWA3, to demarcate the full extent of its eastern bank (Figure 3). No flags were added to its western Bank, as no work is proposed on that side of the stream.

HW also identified a small tributary to Channel 1, converging with the stream at flag CH1-1. HW and the CHA added blue flags labeled as HWS1-100 to HWS1-102 along its eastern Bank, and HWS1-200 to HWS1-203 along its western Bank (Figure 4).



Figure 3. HW's blue flags (circled) demarcating the extension of Channel 1 along its eastern Bank. Looking north



Figure 4. HW's blue flags demarcating either side of a tributary to Channel 1, identified as "HWS1". Looking west

An aerial view of HW's revised flagging locations overlain on the Existing Conditions Plan is provided in [Figure 8](#).

1. HW recommends that Applicant update the Existing Conditions Plan with the GPS coordinates provided by HW to accurately depict the revised extent of Channel 1 and the Banks of the tributary to Channel 1, identified as "HWS1", and that the updated plans be provided to the Commission.

### Vegetated Wetland

BVW was identified by the CHA on both sides of the unnamed intermittent stream described in the previous subsection, with portions of BVW also connecting to Channel 2. The Applicant refers to this as "Wetland Series A" in the Delineation Memo and was demarcated with pink flags labeled as WFA-1 to WFA-24, which are depicted in the Existing Conditions Plan. HW identified two areas where the BVW boundary should be expanded (see aerial view of the revised flagging locations in [Figure 8](#)), as follows:

HW recommends the following adjustments to be made to the wetland boundary:

- Remove BVW boundary flags WFA-6 through WFA-9<sup>1</sup>, such that flags WFA-5 and WFA-10 connect directly ([Figure 5](#)); and
  - Relocate WFA-2 approximately eight feet to the northwest, where HW's revised pink flag labeled as HWR-WFA-2 was hung ([Figure 6](#)); and
  - Extend the BVW in a southwesterly direction ([Figure 7](#)), demarcated with HW's additional pink flags labeled sequentially as HWA1-WFA-1, which connects to CHA's flag WFA-4, through HWA7-WFA-2, which connects to HW's revised HWR-WFA-2 flag, and that CHA's flag WFA-3 be removed.
2. HW recommends that Applicant update the Existing Conditions Plan with the GPS coordinates provided



Figure 5. View of BVW expanded between CHA flags WFA5 and WFA-10. Looking northwest from WFA-5



Figure 6. Figure 6. HW's revised HWR-WFA-2 flag at left, and CHA's original WFA-2 flag in view to the right. Looking southeast

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<sup>1</sup> No CHA flags were physically removed during HW's Site visit.

by HW to accurately depict the revised extent of BVW as detailed above, and that the updated plans be provided to the Commission.



Figure 7. View of area where BVW was extended to the southwest. Looking southwest from the same position as Figure 6

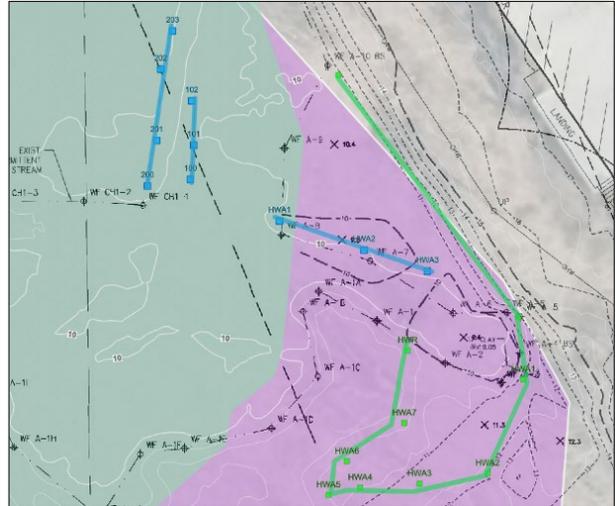


Figure 8. Aerial view of HW's revised flagging locations overlain on the Existing Conditions Plan. Connected green points indicate the revised wetland boundary; connected blue points indicate the revised Wetland Banks; sequential flag nomenclature depicted.

The Delineation Memo indicates that the BVW boundary was determined in accordance with the MassDEP publication: *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act* (March 1995), the U.S. Army Corps of Engineers ("USACE") publication: *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast* (January 2012), and the local regulations. HW notes that MassDEP published an updated BVW delineation manual: *Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands* in September 2022, which more closely aligns with the USACE delineation guidance publication. The updated MassDEP guidance publication provides BVW Determination Forms which are also closely aligned with the USACE method for collecting and assessing this data via their Wetland Determination Data Form – Northcentral and Northeast Region. However, the Delineation Memo includes details on the data captured via DEP BVW Delineation Data Forms that are consistent with the 1995 MassDEP delineation methodology.

3. The Commission may consider requesting that the BVW data forms provided by CHA be updated to demonstrate consistency with the current MassDEP delineation guidance and associated BVW data forms, in accordance with the Town of Hingham Conservation Commission Resource Area Delineation Policy numbers 4 and 7.

### Vernal Pool Habitat

One CVP (#3588), as designated by the Natural Heritage Endangered Species Program (NHESP), is mapped within the Site. HW reviewed CHA's CVP boundary, which was demarcated with blue flagging labeled as TOB1-1 to TOB1-10. HW agreed with CHA's CVP boundary delineation, which should incorporate the shallowest reaches of the pool in accordance with the

MassWildlife *Guidelines for the Certification of Vernal Pool Habitat* (March 2009). This guidance document states that the boundary of a vernal pool shall be determined as follows:

*"When there is no distinct and clear topographic break at the edge of a pool, the maximum observed or recorded extent of flooding represents the ecological boundary of the vernal pool."*

The CVP boundary closely aligns with the 9 foot contour elevation, as shown in the Existing Conditions Plan. This topographic break was clearly evident in the field ([Figure 9](#)), and the immediately adjacent areas at higher elevations supported herbaceous and shrubby vegetation ([Figure 10](#)). The presence of non-aquatic vegetation indicates that these areas are less likely to provide the minimum two months of inundation in the spring and summer of most years, as necessary for a CVP hydroperiod.



Figure 9. CVP demarcated by CHA's blue flagging (inundated area). *Looking northwest*



Figure 10. Area just south of Figure 8, showing herbaceous and shrubby vegetation in the immediately adjacent area of higher elevation. *Looking northwest*

HW requested that CHA provide additional photos of the CVP taken during their delineation in April 2025, and CHA sent these photos to HW and the Commission via email on November 20, 2025. CHA's photos show that the inundation in the CVP at that time was covering a similar area and is consistent with the topographic break as observed during HW's visit ([Figures 11](#) and [12](#)).



Figure 11. CVP demarcated by CHA's blue flagging (inundated area); photo taken by CHA in April 2025. Looking southeast



Figure 12. Additional view of the CVP shown in Figure 9; photo taken by CHA in April 2025. Looking south

4. HW recommends that the Commission accept the boundary of the CVP as delineated by CHA and as depicted in the Existing Conditions Plan for the purposes of any Determination the Commission may issue.

The southern extent of the locally-protected Vernal Pool Protection Zone, where it falls within BVW, is coincident with the full extent of vernal pool habitat as defined under the WPA, in accordance with 310 CMR 10.57(2)(a)6., which states:

*“Vernal pool habitat shall include the area within 100 feet of the boundary of the vernal pool itself, insofar as such area is contained within the boundaries of this resource area.”*

5. HW recommends that the Commission accept the boundary of the Vernal Pool Protection Zone as shown on the Existing Conditions Plan, in accordance with the local regulations, Section 19.1(b & c).

HW confirmed that no other areas that may meet the criteria to be CVPs were present during the on-site review. HW also reviewed MassGIS data for Potential Vernal Pools (PVPs) and found that none are mapped within the Site.

### **Desktop Review of Protected Resource Areas**

HW completed a desktop review of the Site via MassMapper, and other data sources as noted below, and determined that the Site or portions of the Site fall within the following protected resource areas, as noted in the Delineation Memo:

### **Outstanding Resource Waters**

Outstanding Resource Waters (ORWs) include Areas of Critical Environmental Concern (ACEC), Wildlife Refuges, Scenic/Protected Rivers, Public Water Supply Watersheds, and other protected coastal areas that would not apply to this inland site. The MassGIS DEP mapped wetland boundary datalayer, labeled in MassGIS as the *DEP Wetlands Detailed* datalayer, coincides with

the ORW boundary associated with the Weymouth Back River ACEC. The designation of an area as an ACEC warrants additional consideration under the WPA, as specified under 310 CMR 10.55(4)(e), which states:

*“(e) Any proposed work shall not destroy or otherwise impair any portion of a Bordering Vegetated Wetland that is within an Area of Critical Environmental Concern designated by the Secretary of Energy and Environmental Affairs under M.G.L. c. 21A, § 2(7) and 301 CMR 12.00: Areas of Critical Environmental Concern. 310 CMR 10.55(4)(e):*

- 1. supersedes the provisions of 310 CMR 10.55(4)(b) and (c);*
- 2. shall not apply if the presumption set forth at 310 CMR 10.55(3) is overcome;*
- 3. shall not apply to work proposed under 310 CMR 10.53(3)(l); and*
- 4. shall not apply to maintenance of stormwater detention, retention, or sedimentation ponds, or to maintenance of stormwater energy dissipating structures, that have been constructed in accordance with a valid order of conditions.”*

As such, the Commission’s authority to permit work that results in the loss of any BVW that is within an ACEC is overcome, unless the BVW’s presumption of significance is overcome, meets the limited project provisions specified for the construction, reconstruction, operation or maintenance of water dependent uses, or the BVW is a stormwater management feature previously approved by the Commission.

6. The Commission may wish to include this information as a **Finding** in any Determination it makes for this Site.

### **Buffer Zone**

The WPA applies a 100 foot wide buffer zone to the boundaries of BVW and Bank, and the local regulations extend this same buffer zone width to the boundary of CVPs. No performance standards are specified for Buffer Zone under the WPA. However, the local regulations apply five Buffer Zone performance standards under Section 22(d).

7. For any future project proposed at this Site, HW recommends that the Applicant demonstrates to the Commission the proposed project’s conformance to the local Buffer Zone performance standards as defined under Section 22(d) of the local regulations, as well as a demonstration of the proposed project’s conformance to the Town of Hingham *Buffer Zone Mitigation Policy* and *Tree Removal and Replacement Policy*, as applicable.

### **Other Protected Resources Not Found at the Site**

HW reviewed MassGIS data to confirm the absence of other protected areas associated with wetlands from within and in the vicinity of the Site. The results of this evaluation are provided in the following sections.

### State-Listed Rare Species Habitat

According to the most recent version of the *Massachusetts Natural Heritage Atlas* (15<sup>th</sup> Edition, August 1, 2021)<sup>2</sup>, the Site does not occur within areas of *Estimated Habitat of Rare Wildlife*, or *Priority Habitat of Rare Species* as designated by NHESP.

### Bordering Land Subject to Flooding

The current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Bristol County (Community Panel 25023C0081K, effective July 3, 2024) shows that no portion of the Site or the surrounding lands are within floodplains, including Bordering Land Subject to Flooding (BLSF).

### Public Water Supply Protection Zones

The Site does not occur within any areas designated as Public Water Supplies, including MassGIS data layers for Surface Water Supply Watersheds, Surface Water Supply Protection Areas (Zones A-C), or MassDEP Wellhead Protection Areas, including Zone I, Zone II, or Interim Well Protection Areas (IWPA).

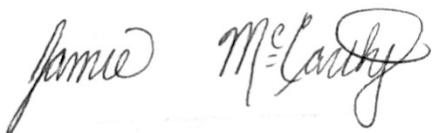
### Summary

HW is pleased to provide the Hingham Conservation Commission with comments and recommendations for consideration regarding our review of the wetland resource areas and RDA application package.

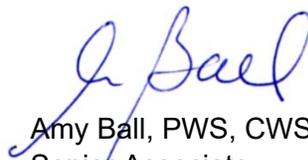
Should you have any questions or require further clarification with respect to our observations and recommendations, please do not hesitate to contact Jamie McCarthy at (508) 833-6600 or at [jmccarthy@horsleywitten.com](mailto:jmccarthy@horsleywitten.com).

Sincerely,

**Horsley Witten Group, Inc.**



Jamie McCarthy  
Environmental Scientist



Amy Ball, PWS, CWS  
Senior Associate

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<sup>2</sup> HW notes that the Delineation Memo references the August 2017 edition of the *Massachusetts Natural Heritage Atlas*, rather than the most current version.