

**EcoTec, Inc.**  
**ENVIRONMENTAL CONSULTING SERVICES**  
102 Grove Street  
Worcester, MA 01605-2629  
508-752-9666 – Fax: 508-752-9494

**PROJECT NARRATIVE TO SUPPLEMENT  
REQUEST FOR DETERMINATION OF APPLICABILITY**

**8 Elizabeth Lane,  
Hingham, Massachusetts**

Prepared for:

Bruna Rossetti,  
North America Development, LLC  
93 Broadway  
Somerville, MA 02145

Prepared by:



John P. Rockwood, Ph.D., SPWS  
Principal Environmental Scientist



Kate O'Donnell, WPIT  
Environmental Scientist

September 9, 2022

## **INTRODUCTION**

This Request for Determination of Applicability (“RDA”) has been filed under the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, § 40; the “Act”) and its implementing regulations (310 CMR 10.00 *et seq.*; the “Regulations”) and the Hingham Wetland Protection Bylaw and Bylaw Regulations (Article 22 Sections 1-12; the “Bylaw” and “Bylaw Regulations”).

The subject site consists of 0.29± acres of land located to the north of Elizabeth Lane in northern Hingham, Massachusetts. The subject site is largely previously developed with a single-family house with a concrete front landing, side wooden landing and steps, and rear bulkhead; wooden panel fencing; a crushed stone/stone dust parking area largely in the Elizabeth Lane layout; and associated lawn and landscaping including a multi-stemmed magnolia tree in the front yard, and peripheral trees and landscaping. The wetland resources observed on or near the site are described in the Wetland Resource Evaluation, prepared by EcoTec, Inc., dated January 25, 2022, a copy of which is included as part of this RDA. Based upon field notes taken during the inspection for the wetland evaluation, the off-site Bordering Vegetated Wetland/Bank boundary, shown on the “Existing Conditions Site Plan” and the “Civil Plan,” included as a part of this RDA application, appears to be correctly shown relative to other site features. Photographs of the property are attached to this narrative.

## **PROJECT DESCRIPTION AND DISCUSSION**

The proposed project consists of the demolition of the existing single-family house and the proposed construction of a new single-family house with an attached two-car garage and front porch, permeable paver driveway, rear patio, retaining wall, stormwater infiltration system, utilities, and associated grading, lawn, and landscaping. A portion of the proposed garage and front porch and the proposed permeable paver driveway are located within the 100-foot Buffer Zone to the off-site Bordering Vegetated Wetlands.

The proposed project results in an increase in impervious surface on the site and in the 100-foot Buffer Zone. As shown on the site plan, a total of 134± square feet of new impervious surface area associated with the garage and front porch is proposed within the 100-foot Buffer Zone. The permeable paver driveway is considered pervious and does not require mitigation. The Town of Hingham Buffer Zone Mitigation Policy requires that proposed impervious surfaces/structures located within the area between 50 and 100 feet from the wetland be mitigated at a 1:1 ratio. Accordingly, a mitigation planting plan for a bounded 150±-square foot mitigation area is provided below.

Under existing conditions roof runoff is directed to the ground surface. Under proposed conditions, roof runoff will be directed to an infiltration system and driveway runoff will be infiltrated through the permeable paver driveway with excess runoff collected and pretreated through a trench drain and manhole and discharged to the infiltration system. Although impervious surfaces on the site will increase because of the proposed project, the proposed

stormwater management systems have been designed to control the post-development runoff to pre-development levels. The permeable paver driveway is located within the 100-foot Buffer Zone; the main infiltration system is located outside of the 100-foot Buffer Zone. A stormwater report and operations and maintenance plan are included as part of this RDA.

The proposed project will require the removal of one (1) multi-stemmed ornamental tree with a total diameter of 34 inches dbh (10", 8", 8", and 6"). According to the requirements of the Town of Hingham Tree Removal and Replacement Policy, *"The Commission will not allow the loss of trees six inches (6") or greater in diameter at breast height (DBH) within their jurisdiction. At its discretion, the Commission may grant a waiver to this policy"* with the required replacement at a 1:1 ratio within the outer Buffer Zone. Accordingly, the applicant requests a waiver of this requirement in the policy and proposes a two-inch caliper Sweetbay Magnolia (*Magnolia virginiana*) tree within the front yard of the property, within the Buffer Zone. Additionally, the proposed Mitigation Planting Plan includes six shrubs and native seeding in a bounded 150±-square foot area located in the 100-foot Buffer Zone in the southern portion of the site. This plan will serve to stabilize the area and provide for enhance wildlife habitat value in this area compared to the existing condition.

### **MITIGATION PLANTING AREA PROTOCOL**

As shown on the Site Plan, a total of 134± square feet of land between 50 and 100 feet from the wetland boundary is proposed to be converted to impervious surfaces for the proposed garage and front porch. As mitigation, a bounded 150±-square foot Mitigation Planting Area has been proposed in the 100-foot Buffer Zone in the southern corner of the site. The existing erosion control barrier, which is also shown on the Site Plan, will be retained until the site has been stabilized. Work in this area will consist of limited soil movement with hand tools (i.e., shovels and rakes), and the planting of woody plant materials using hand tools. There is no intention of bringing additional soil onto the site for use in this area. The work within the Mitigation Area should be conducted under the direct supervision of a qualified wetland scientist.

As limited soil disturbance is proposed, additional erosion controls are not proposed as part of this activity. The existing erosion control barrier will be left in place until the site has become stabilized. The existing conifer at the edge of the area will be retained as part of this plan. Again, no additional soil is proposed to be added within the Mitigation Area. The mitigation plantings specified in the table below will be planted in accordance with current landscape practices. A total of six (6) native shrubs are proposed to be planted in the mitigation area. The shrubs will be selected from the planting list included on the Civil Plan; a minimum of three species will be selected from the plant list.

Following the planting of the woody materials, the area will be seeded with the specified seed mixture and the shrubs and area will be watered and lightly mulched with salt marsh hay. Following the restoration planting, a brief completion report will be provided to the Commission in a timely manner.

**Mitigation Area Monitoring:** The Mitigation Planting Area will be monitored near the end of the growing season for two years after it is established. During each inspection, which will be conducted by a qualified wetland scientist, the condition of the area and the number and species of shrubs and their condition will be documented. Photographs of the area shall be taken, and representative photographs shall be included in the report. To be considered a success, the proposed plantings shall have a 75% survival rate. The findings of each inspection will be documented in a report that will be submitted in a timely manner to the Commission. Each report will include any necessary recommendations to bring the area into compliance.

**NARRATIVE PERFORMANCE STANDARD UNDER THE ACT  
FOR WORK IN THE 100-FOOT BUFFER ZONE**

As detailed below, the proposed project has been designed to comply with the narrative performance standard for work within the 100-foot Buffer Zone set forth at 310 CMR 10.53(1).

Section 10.53(1) of the Regulations provides a narrative standard for work in the Buffer Zone and states "...If the issuing authority determines that a resource area is significant to an interest identified in M.G.L. c. 131, § 40 for which no presumption is stated in the Preamble to the applicable section, the issuing authority shall impose such conditions as are necessary to contribute to the protection of such interests. For work in the buffer zone subject to review under 310 CMR 10.02(2)(b)3., the issuing authority shall impose conditions to protect the interests of the Act identified for the adjacent resource area. The potential for adverse impacts to resource areas from work in the buffer zone may increase with the extent of the work and the proximity to the resource area. The issuing authority may consider the characteristics of the buffer zone, such as the presence of steep slopes, that may increase the potential for adverse impacts on resource areas. Conditions may include limitations on the scope and location of work in the buffer zone as necessary to avoid alteration of resource areas. The issuing authority may require erosion and sedimentation controls during construction, a clear limit of work, and the preservation of natural vegetation adjacent to the resource area and/or other measures commensurate with the scope and location of the work within the buffer zone to protect the interests of the Act. Where a buffer zone has already been developed, the issuing authority may consider the extent of existing development in its review of subsequent proposed work and, where prior development is extensive, may consider measures such as the restoration of natural vegetation adjacent to a resource area to protect the interest of the Act. The purpose of preconstruction review of work in the buffer zone is to ensure that adjacent resource areas are not adversely affected during or after completion of the work."

As indicated in the Preface to the 2005 Revisions to the Regulations, "This standard is intended to provide better guidance to applicants, conservation commissions and DEP by identifying the measures that will ensure that adjacent wetland resource areas are not adversely affected during or after completion of the work."

Work proposed as part of this project will all occur greater than 50 feet from the Bordering Vegetated Wetlands boundary. Prior to the start of earth moving activities, an erosion control barrier consisting of staked compost sock only, which will also serve as the Limit of Work, will be located around the work areas as shown on the Civil Plan. This erosion control barrier will be maintained until the work area is stabilized. Approval of the issuing authority will be received prior to the removal of the erosion control barrier. The site itself slopes away from Elizabeth Lane and the Bordering Vegetated Wetlands located across Elizabeth Lane from the site. No significant changes to the existing grade are proposed within the 100' Buffer Zone as part of the project. The proposed work is located across Elizabeth Lane from the adjacent wetland. Areas of the site that are disturbed as part of this project will be stabilized by building, pavers, lawn, or landscaping. Notwithstanding the critical importance of the buffer zone for protection of wetland values, there may be some minor or temporary work or activities which may have no adverse effect or cumulative adverse effect upon the wetland values. Such work or activities may be allowable within the outer portion of the buffer zone, provided the Commission finds that there is no adverse effect or cumulative adverse effect upon the wetland values.

**PERFORMANCE STANDARD UNDER THE BYLAW  
FOR WORK IN THE 100-FOOT BUFFER ZONE**

Section 22(d) of the Hingham Wetland Bylaw Regulations list the following Performance Standards for work in the Buffer Zone.

*“(1) The intent of the Conservation Commission is to move all structures and activities as far away as possible from any Resource Area, in order to protect the wetland values of Resource Areas.”*

As indicated on the Civil Plan, the site is located across Elizabeth Lane from the wetland. On the site, the proposed activities have been located as far from the off-site Bordering Vegetated Wetlands as possible. A total of 134± square feet of the proposed garage and front porch are located in the 100-foot Buffer Zone; a bounded 150±-square foot mitigation planting area has been proposed. The permeable paver driveway has been proposed instead of a paved driveway; this driveway is located over 50 feet from the wetland and slopes away from the wetland. Stormwater infiltration is proposed for roof and driveway runoff.

*“(2) Except as otherwise specified, Resource Area buffers shall be retained and maintained in a naturally vegetated condition. Where buffer disturbance has occurred during construction, revegetation with native vegetation may be required.”*

The proposed work is located across Elizabeth Lane more than 50 feet from the off-site Bordering Vegetated Wetlands. The 100-foot Buffer Zone on the site is previously developed consisting of lawn and landscaping. The project includes a 150±-square foot mitigation planting area with several native shrubs and native seeding.

*“(3) The Commission may require that already-altered buffer zone be restored in order to protect or improve Resource Area values. Restoration means planting native vegetation, grading, correcting site drainage, removing debris, or other measures which will improve, restore and protect the wetland values of the Resource Area.”*

The proposed work is located across Elizabeth Lane more than 50 feet from the off-site Bordering Vegetated Wetlands. The 100-foot Buffer Zone on the site is previously developed consisting of lawn and landscaping. The project includes a 150±-square foot mitigation planting area with several native shrubs and native seeding.

*“(4) Notwithstanding the above provisions, no project may be permitted which will have any adverse effect on specified habitat of rare vertebrate or invertebrate and rare plant species, as identified by procedures established under 310 CMR 10.37 for Coastal Resource Areas or 310 CMR 10.59 for Inland Resource Areas.”*

Based upon a review of the Massachusetts Natural Heritage Atlas, 15th edition, Priority Habitats and Estimated Habitats from the NHESP Interactive Viewer, valid from August 1, 2021, and Certified Vernal Pools from MassGIS, there are no Estimated Habitats [for use with the Act and Regulations (310 CMR 10.00 et seq.)], Priority Habitats [for use with Massachusetts Endangered Species Act (M.G.L. Ch. 131A; “MESA”) and MESA Regulations (321 CMR 10.00 et seq.)], or Certified Vernal Pools on or in the immediate vicinity of the site.

*“(5) The Commission may impose such additional requirements as are necessary to protect the wetland values protected under the Bylaw.”*

The applicant would expect such a condition. Additionally, the project complies with Section 2B of the Hingham Wetland Bylaw which states that *“Except as authorized by the Commission, no activity or alteration shall be permitted within a fifty (50’) foot Buffer strip between any wetland resource, bordering vegetated wetland... and any proposed site disturbance”* As detailed in this RDA, no work associated with the proposed project is proposed within 50 feet of the off-site Bordering Vegetated Wetlands.

### **CONCLUSIONS**

In conclusion, work associated with the proposed project will not result in any alteration to wetland resources subject to protection under the Act or Bylaw. Work is proposed within the 100-foot Buffer Zone; no work is proposed within 50 feet of the off-site Bordering Vegetated Wetlands. As described in this Request, the work has been designed to meet the narrative performance standards for work in the 100-foot Buffer Zone under the Regulations and the performance standards for work within the 100-foot Buffer Zone under the Bylaw Regulations. As such, it is EcoTec’s opinion that the proposed project complies with the applicable provisions of the Act/Regulations and the Bylaw/Bylaw Regulations and will serve to protect the applicable statutory and Bylaw interests.



**SITE PHOTOS**



View north from Elizabeth Lane which shows the four-stem magnolia tree proposed to be removed.



View east of the existing house on the property.