



**Wildlife Habitat Evaluation
Proposed Mix Use Redevelopment
0,19, & 31-35 Railroad Avenue and 236 Elm
Street Haverhill, MA
August 25, 2021
Revised September 10, 2021**

Introduction

The proposed redevelopment project consists of seven (7) formerly developed parcels totaling approximately 6.81 acres. It is bounded by the Comeau Bridge and the Railroad Ave/South Elm Street intersection to the northeast, Railroad Ave to the east, the Merrimack Valley Regional Transit Authority (MVRTA) bus maintenance facility to the southwest and the Merrimack River to the west. The project site contains several remnants of its previous mill complex history but is presently largely vegetated in primarily non-native and invasive species typical of disturbed urban sites. Portions of the site have recently been used as a homeless encampment resulting in considerable abandoned material and debris.

Construction of the proposed project will result in alterations of portions of the 10-year floodplain. As such, the project exceeds thresholds for alteration of 10% or 5,000 square feet (whichever is less) of that portion of Bordering Land Subject to Flooding that is within the 10-year floodplain or within 100 feet of the Bank under 310 CMR 10.57(l)(a)3, (2)(a) 5&6, (4)(a) (3). The project is also located within the 200-foot Riverfront Area to the Merrimack River and while there is no specific threshold for preparation of a WHE but may be provided if requested by the issuing authority.

Most of the wetland resources subject to jurisdiction under the Mass. Wetlands Protection Act are presumed significant to the protection of wildlife habitat. The regulations presume that resources provide the important wildlife habitat functions such as food, shelter, migratory and over-wintering areas, or breeding areas. This presumption is rebuttable by a showing that the resource are lacks wildlife habitat functions. Only those projects which exceed the thresholds described above require preparation of a WHE. Alterations of resource areas greater than these thresholds may be allowed if they are determined to have no adverse effects on important wildlife habitat. Therefore, alterations must be avoided, minimized and/or mitigated to meet the standard of “no adverse effect.”

These performance standards do not address the protection of individual wildlife species or groups of species, but only the habitat which supports them.

Existing Conditions

Rimmer Environmental Consulting, LLC (REC) conducted a site inspection of the proposed project area on April 19, 2021. The site is located on the south bank of the Merrimack River, immediately upstream of the Comeau Bridge. The river remains tidal in this area, with a tidal range of 5.72 feet (NOAA Riverside, Merrimack River Station ID 8440889). The MHW elevation was estimated in the field based upon evidence of channel scouring, undercutting and changes in vegetation. It was also confirmed by field survey reference to nearby stream gage data and determined to be consistent with elevation 6.08 (NGVD29). The 10-year FEMA floodplain is estimated to be elevation 16.8 and the 100-year FEMA flood zone extends to elevation 23 (NAVD88).



Fig. 1: Site Locus

The top of Inland Bank resource is defined under 310 CMR 10.54 as the MHW line or first observable break in slope, whichever is lower. Since the break in slope occurs well above MHW, the MHW elevation (6.08 NGVD29) represents the top of Inland Bank resource. Above this elevation, the slope is regulated as Bordering Land Subject to Flooding. The Bank resource from the toe of slope to MHW as well as that portion of BLSF within the 10-year floodplain (MHW to elevation 16.8) are presumed to be significant to wildlife habitat.

The portion of the slope within the 10-year floodplain is extremely steep, with slopes at 1:1 in some location. The slope rises approximately 25 feet above MHW to the top of slope. The lower slope contains stone riprap for 10 feet or so up the slope. The slope is largely forested with a variety of deciduous trees, including river birch (*Betula nigra*) and silver maple (*Acer saccharinum*) near the water's edge. Other species including northern red oak (*Quercus rubra*), Norway maple (*Acer platanoides*)*, box elder (*Acer negundo*), tree of heaven (*Ailanthus altissima*)*, cottonwood (*Populus deltoides*) green ash (*Fraxinus pensylvanica*), black locust (*Robinia pseudoacacia*)* and black cherry (*Prunus serotina*) occur on the slope or at the top of slope. In most locations there is a dense understory of Tartarian honeysuckle (*Lonicera tatarica*)* glossy buckthorn (*Frangula alnus*)* Japanese knotweed (*Polygonum cuspidatum*)* and multiflora rose (*Rosa multiflora*)*. Asiatic bittersweet (*Celastrus orbiculatus*)* covers many of the trees and shrubs.

Soils within most of the project site are mapped by NRCS Udorthents which are urban, disturbed soils.



Photo 1: View upstream (southwest) from northeast end of site Photo 2: View west from northeast end of site



Photo 3: honeysuckle understory



Photo 4: Debris, disturbed use of site



Photo 5: Japanese knotweed understory



Photo 6: honeysuckle with silver maple



Photo 7: Exposed riprap on lower slope



Photo 8: Leaning Silver maple



Photo 9: Debris with bittersweet covering the Trees and shrubs



Photo 10: Bittersweet covering trees



Photo 11: Debris along top of bank



Photo 12: Bittersweet covering trees

Significant Wildlife Habitat Features

The project site is partially within Estimated Habitat of Rare Wetlands Wildlife and Priority Habitat as determined by reference to the Mass. Division of Fisheries and Wildlife – Natural Heritage and Endangered Species Program (NHESP). The site is mapped for Shortnose Sturgeon (*Acipenser brevirostrum*) and Atlantic Sturgeon (*Acipenser oxyrinchus*). Measures to address compliance and mitigation associated with rare species are being addressed in a separate document and is not covered in this Wildlife Habitat Evaluation.



Fig. 2: NHESP Priority Habitat

The project site is part of a densely developed river corridor in Haverhill, MA. Low tide conditions provide the most potential for terrestrial wildlife migration up and down stream. The adjoining parcels inland of the site contain the MBTA rail corridor located within 200-400 feet of the riverbank so areas immediately inland of the project area are entirely developed with buildings and parking areas eliminating potential for connection to other inland habitats.

On the upper slope there is potential nesting and cover habitat for a variety of common urban species. However, the quality of the habitat is compromised by the large percentage of non-native and invasive species that contain little wildlife habitat value, including Japanese knotweed, glossy buckthorn and Asiatic bittersweet. The bittersweet was observed overtaking several trees. The lower slopes contain several trees with overhanging branches that can provide perch sites for kingfisher, heron and potentially bald eagle. The overhanging branches also attenuate water temperature which is a benefit to fisheries.

In addition to the nesting and cover habitats described above, the mast (acorns and nuts) from the few oak trees not overtaken by bittersweet and single horse chestnut also provide an important food source for small mammals. The box elders at the eastern end of the site are a beneficial food source for many birds and the flowers are beneficial to honeybees. No burrows other than chipmunk burrows were noted, though the shoreline likely supports mink and weasel and possibly otter.

Northern Long-eared Bat 4(d) Rule Compliance

The Northern Long-eared Bat (*Myotis septentrionalis*) is listed as a threatened species under the Endangered Species Act (ESA 50 CFR 17.11) and the Massachusetts Endangered Species Act (MESA MGL s. 131A). Projects that result in tree removal activities must comply with the 4(d) rule under the ESA which requires that incidental take resulting from tree removal activity is prohibited if it 1) occurs within 0.25 mile radius of known northern long-eared bat hibernacula or 2) cuts or destroys known occupied maternity roost trees or any other trees within a 150-foot radius from the known maternity tree during the pup season (June 1-July 31). The site is not located within an area of known roost trees and hibernacula. Based upon reference to NHESP data on statewide the site is located more than 15 miles from the nearest known hibernacula and the nearest known maternity trees are on the Cape and Islands. There was no evidence the site provides either hibernacula or maternity trees for this species.

Summary and Mitigation Measures

The project has been designed to minimize impacts to wildlife habitat to the extent feasible and the removal and replacement of non-native and invasive species with native species with high wildlife habitat and soil stabilizing properties will result in significant improvement to habitat functions provided by the inner floodplain area. It is recommended that the existing native trees along the shoreline be preserved to protect their function as perch sites and shading of the waterway.