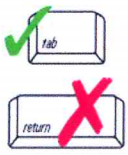
**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands Program

# Wildlife Habitat Protection Guidance

## Appendix B: Detailed Wildlife Habitat Evaluation

## Part 1. Summary Sheet

**Important:** When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.




0 Hudson Street NOI
Project Name

0 Hudson Street, Northborough, MA (Map 53, Lots 19,20 & 21)
Location

520 SF BVW, 21,470 BLSF, 21,120 Riverfront (Note: BLSF and riverfront overlap in area)

2/27/19
Date

Impact Areas (linear feet, square feet, or acres for each of the impact areas within the site)

| Name | Waterbody/ Waterway | Wetland | Upland* | Total Area |
|---|---|---|---|---|
| 1. BVW | | 520 SF | | 520 SF |
| 2. BLSF | | | 22,390 SF* | 22,390 SF |
| 3. Riverfront | Assabet River | 520SF | 25,078 SF* | 25,078 SF |
| 4. | | | | |
| 5. | | | Total: | 26,021* SF |
| 6. | | | | |
| 7. | | | | |

*Note: BLSF and Riverfront overlap in area

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

See attached Wildlife Habitat Evaluation letter.

## Certification

I hereby certify that this project has been designed to avoid, minimize, and mitigate adverse effects on wildlife habitat, and that it will not, following two growing seasons of project completion and thereafter, substantially reduce its capacity to provide important wildlife habitat functions.

Signature of Wildlife Specialist (per 310 CMR 10.60 (1) (b))

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMR 10.60 (1) (b))

Typed or Printed Name

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## Appendix B: Detailed Wildlife Habitat Evaluation

## Part 2. Field Data Form (for each wetland or non-wetland resource area)

### I. General Information

0 Hudson Street, Northborough, MA (Map 53, Lots 19,20 & 21)
Project Location (from NOI page 1)

BVW, BLSF and Riverfront Combined (Note: BLSF and Riverfront overlap in area)
Impact Area (number/name)

8/1/19
Date(s) of Site Visit(s) and Data Collection

Partly Cloudy, low 20s, Some 1-2" snow/ice cover
Weather Conditions During Site Visit (if snow cover, include depth)

Steve Erikson — Person completing form per 310 CMR 10.60(1)(b)
8/18/19 — Date this form was completed

Person completing form per 310 CMR 10.60(1)(b)
8/18/19 — Date this form was completed

The information on this data sheet is based on my observations unless otherwise indicated

Signature

Signature

### II. Site Description (complete A or B under Classification - see instructions for full description)

A. Classification

1. For Wetland Resource Areas, complete the following:

System: Palustrine
Subsystem: NA
Class: Scrub-Shrub / Forested
Subclass: Broad-Leaved Deciduous / Deciduous

Hydrology/Water Regime

- ☐ Permanently flooded
- ☐ Saturated
- ☐ Intermittently exposed
- ☐ Temporarily flooded
- ☐ Semi-permanently flooded
- ☐ Intermittently flooded
- ☒ Seasonally flooded
- ☐ Artificially flooded

2. For Riverfront or Bordering Land Subject to Flooding Resource Areas, complete the following. Use a terrestrial classification system such as one of the two listed below:
   a. "Classification of the Natural Communities of Massachusetts (Draft)" by Patricia C. Swain and Jennifer B. Kearsley, MA DFW NHESP, Westborough, MA. July 2000. (Department of Fish & Game Website)
   b. "New England Wildlife: Habitat, Natural History, and Distribution" by Richard M. DeGraaf and Deborah D. Rudis, USDA Forest Service, Northeastern Forest Experiment Station. General Technical Report NE-108. August 1992. 491 pages.

Palustrine
Community Name

Forested Wetland / Floodplain Forested
Vegetation Description

Scrub-Shrub / Forested
Physical Description

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## Appendix B: Detailed Wildlife Habitat Evaluation

## Part 2. Field Data Form (continued)

B. Inventory (Plant community)

| % Cover: | 33% | 80%* | | | 33% |
|---|---|---|---|---|---|
| | Trees (> 20') | Shrubs (< 20') | Woody vines | Mosses | Herbaceous |

Plant Lists (species that comprise 10% or more of the vegetative cover in each strata; "*" designates a dominant plant species for the strata):

| Strata | Plant Species | Strata | Plant Species |
|---|---|---|---|
| Trees | Red Maple, Elm, Ash | | |
| Tree - Sapling | Black walnut | | |
| Shrub | silky dogwood, blackberry | | |
| Shrub | Honeysuckle | | |
| Shrub | Japanese Knotweed | (80% of proposed disturbance) | |
| Herbaceous | Sensitive Fern | | |

*invasive species cover included

C. Inventory (Soils)

| | |
|---|---|
| Merrimac fine sandy loam | Hydrologic soil group: A |
| Soil Survey Unit | Drainage Class |
| Sandy loam | 20" |
| Texture (upper part) | Depth |
| 16" | |
| Depth to Water Table | |

### III. Important Habitat Features (complete for all resource areas)

If the following habitat characteristics are present, describe & quantify them on a separate sheet & attach.

Wildlife Food

Important Wetland/Aquatic Food Plants (smartweeds, pondweeds, wild rice, bulrush, wild celery)

☐ Abundant ☐ Present ☒ Absent

Important Upland/Wetland Food Plants (hard mast and fruit/berry producers)

☐ Abundant ☒ Present ☐ Absent

Shrub thickets or streambeds with abundant earthworms (American woodcock)

☐ Present ☒ Absent

Shrub and/or herbaceous vegetation suitable for veery nesting

☐ Present ☒ Absent

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## Appendix B: Detailed Wildlife Habitat Evaluation

## Part 2. Field Data Form (continued)

Number of trees (live or dead) > 30" DBH: None

Number (or density) of Standing Dead Trees (potential for cavities and perches):

| 6-12" dbh | 12-18" dbh | 18-24" dbh | > 24" dbh |
|---|---|---|---|

Number of Tree Cavities in trunks or limbs of:

None
6-12" diameter (e.g., tree swallow, saw whet owl, screech owl, bluebird, other songbirds)

None
12-18" diameter (e.g., hooded merganser, wood duck, common goldeneye, mink)

None
>18" diameter (e.g., hooded merganser, wood duck, common goldeneye, common merganser, barred owl, mink, raccoon, fisher)

Small mammal burrows

☐ Abundant ☐ Present ☒ Absent

Cover/Perches/Basking/Denning/Nesting Habitat

☐ Dense herbaceous cover (voles, small mammals, amphibians & reptiles)

☐ Large woody debris on the ground (small mammals, mink, amphibians & reptiles)

☐ Rocks, crevices, logs, tree roots or hummocks under water's surface (turtles, snakes, frogs)

☐ Rocks, crevices, fallen logs, overhanging branches or hummocks at, or within 1m above the water's surface (turtles, snakes, frogs, wading birds, wood duck, mink, raccoon)

☐ Rock piles, crevices, or hollow logs suitable for:

☐ otter ☐ mink ☐ porcupine ☐ bear ☐ bobcat ☐ turkey vulture

☐ Live or dead standing vegetation overhanging water or offering good visibility of open water (e.g., osprey, kingfisher, flycatchers, cedar waxwings)

Depressions that may serve as seasonal (vernal/autumnal) pools

☐ Present ☒ Absent

Standing water present at least part of the growing season, suitable for use by

☐ Breeding amphibians ☒ Non-breeding amphibians (foraging, re-hydration)

☐ Turtles ☐ Foraging waterfowl

Sphagnum hummucks or mats, moss-covered logs or saturated logs, overhanging or directly adjacent to pools of standing water in spring (four-toed salamander)

☐ Present ☒ Absent

# Wildlife Habitat Protection Guidance

## Appendix B: Detailed Wildlife Habitat Evaluation

## Part 2. Field Data Form (continued)

Important habitat characteristics (if present, describe and quantify them on a separate sheet)

Medium to large (> 6"), flat rocks within a stream (cover for stream salamanders and nesting habitat for spring & two-lined salamanders)

☐ Present ☒ Absent

Flat rocks and logs on banks or within exposed portions of streambeds (cover for stream salamanders and nesting habitat for dusky salamanders)

☐ Present ☒ Absent

Underwater banks of fine silt and/or clay (beaver, muskrat, otter)

☐ Present ☒ Absent

Undercut or overhanging banks (small mammals, mink, weasels)

☐ Present ☒ Absent

Vertical sandy banks (bank swallow, kingfisher)

☐ Present ☒ Absent

Areas of ice-free open water in winter

☐ Present ☒ Absent

Mud flats

☐ Present ☒ Absent

Exposed areas of well-drained, sandy soil suitable for turtle nesting

☐ Present ☒ Absent

Wildlife dens/nests (if present, describe & quantify them on the back of this sheet)

Turtle nesting sites

☐ Present ☒ Absent

Bank swallow colony

☐ Present ☒ Absent

| | | | | |
|---|---|---|---|---|
| Nest(s) present of | ☐ Bald Eagle | ☐ Osprey | ☐ Great Blue Heron | |
| Den(s) present of | ☐ Otter | ☐ Mink | ☐ Beaver | |

# Wildlife Habitat Protection Guidance

## Appendix B: Detailed Wildlife Habitat Evaluation

## Part 2. Field Data Form (continued)

Project area is within:

☐ 100' of beaver, mink or otter den, bank swallow colony or turtle nesting area

☐ 200' of Great Blue Heron or osprey nest(s)

☐ 1400' of a Bald Eagle nest[1]

Emergent Wetlands (if present, describe & quantify them on a separate sheet)

Emergent wetland vegetation at least seasonally flooded during the growing season (wood duck, green heron, black-crowned night heron, king rail, Virginia rail, coot, etc.)

| | | |
|---|---|---|
| Flooded > 5 cm | ☐ Present | ☒ Absent |
| Flooded > 25 cm (pied-billed grebe) | ☐ Present | ☒ Absent |

Persistent emergent wetland vegetation at least seasonally flooded during the growing season (mallard, American bittern, sora, common snipe, red-winged blackbird, swamp sparrow, marsh wren)

| | | |
|---|---|---|
| Flooded > 5 cm | ☐ Present | ☒ Absent |
| Flooded > 25 cm (least bittern, common moorhen) | ☐ Present | ☒ Absent |

Cattail emergent wetland vegetation at least seasonally flooded during the growing season

| | | |
|---|---|---|
| Flooded > 5 cm (marsh wren) | ☐ Present | ☒ Absent |
| Flooded > 25 cm (least bittern, common moorhen) | ☐ Present | ☒ Absent |

Fine-leafed emergent vegetation (grasses and sedges) at least seasonally flooded during the growing season (common snipe, spotted sandpiper, sedge wren)

| | | |
|---|---|---|
| Flooded > 5 cm | ☐ Present | ☒ Absent |
| Flooded > 25 cm (least bittern, common moorhen) | ☐ Present | ☒ Absent |

### IV. Landscape Context

A. **Habitat Continuity** (if present, describe the landscape context on a separate sheet and its importance for area-sensitive species)

| | | | |
|---|---|---|---|
| Is the impact area part of an emergent marsh at least | 1.0 acre in size? | ☐ Yes | ☒ No |
| (marsh and waterbirds) | 2.0 acres in size? | ☐ Yes | ☒ No |
| | 5.0 acres in size? | ☐ Yes | ☒ No |
| | 10.0 acres in size? | ☐ Yes | ☒ No |

[1] 1400 feet is the distance used by NHESP for evaluating potential disturbance impacts on eagle nests under MESA. Keep in mind, however, that this doesn't give jurisdiction within 1400' of an eagle's nest; it only identifies it on the checklist so that adverse effects can be avoided if work in a resource area is within 1400 feet.

# Wildlife Habitat Protection Guidance

## Appendix B: Detailed Wildlife Habitat Evaluation

## Part 2. Field Data Form (continued)

| | | | |
|---|---|---|---|
| Is the impact area part of a wetland complex at least | 2.5 acres in size? | ☐ Yes | ☒ No |
| (turtles, frogs, waterfowl, mammals) | 5.0 acres in size? | ☐ Yes | ☒ No |
| | 10.0 acres in size? | ☐ Yes | ☒ No |
| | 25.0 acres in size? | ☐ Yes | ☒ No |

For upland resource areas is the impact area part of contiguous forested habitat at least

| | | | |
|---|---|---|---|
| (forest interior nesting birds) | 50 acres in size? | ☐ Yes | ☒ No |
| | 100 acres in size? | ☐ Yes | ☒ No |
| | 250 acres in size? | ☐ Yes | ☒ No |
| | 500 acres in size? | ☐ Yes | ☒ No |
| (grassland nesting birds) | > 1.0 acre in size? | ☐ Yes | ☒ No |
| (special habitat such as gallery floodplain forest, alder thicket, etc.) | > 1.0 acre in size? | ☐ Yes | ☒ No |

B. **Connectivity with adjoining natural habitats**

- ☐ No direct connections to adjacent areas of wildlife habitat (little connectivity function)
- ☐ Connectors numerous or impact area is embedded in a large area of natural habitat (limited connectivity function)
- ☒ Impact area contributes to a limited number of connectors to adjacent areas of habitat (somewhat important for connectivity function)
- ☐ Impact area serves as *part of* a sole connector to adjacent areas of habitat (important for connectivity function)
- ☐ Impact area serves as *only* connector to adjacent areas of habitat (very important for connectivity function)

**V. Habitat Degradation** (describe degradation and wildlife impacts on the back of the sheet)

- ☐ Evidence of significant chemical contamination
- ☐ Evidence of significant levels of dumping
- ☐ Evidence of significant erosion or sedimentation problems
- ☒ Significant invasion of exotic plants (e.g., **Japanese Knotweed**)
- ☐ Disturbance from roads or highways ☐ Other human disturbance
- ☐ Is the site the only resource area in the vicinity of an otherwise developed area

Note: These are not the only important habitat features that may be observed on a site. If the wildlife specialist identifies other features they should be noted in the application.

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## Appendix B: Detailed Wildlife Habitat Evaluation

## Part 2. Field Data Form (continued)

### VI. Quantification Table for Important Habitat Characteristics

| Habitat Characteristic | Amount Impacted in Impact Area | Current (entire site) | Post-Construction (entire site) |
|---|---|---|---|
| Lone standing nut bearing tree | 1 (to be preserved) | 1 or more | 1 or more |
| Important wildlife food | Sparse | Moderate density | Abundant due to invasive removal and |
| | | | revegetation with native species. |
| | | | |
| | | | |
| | | | |
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