APPENDIX D WILDLIFE HABITAT EVALUATIONS

June 2023

NSTAR ELECTRIC COMPANY D/B/A EVERSOURCE ENERGY

Acushnet to Fall River Reliability Project

Wildlife Habitat Evaluation

PROJECT NUMBER: 151783 PROJECT CONTACT: Karen Hanecak EMAIL: Karen,Hanecak@powereng.com PHONE: 774-643-1821



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Wildlife Habitat Evaluation

PREPARED FOR: NSTAR ELECTRIC COMPANY d/b/a EVERSOURCE ENERGY

PREPARED BY: POWER ENGINEERS CONSULTING, PC

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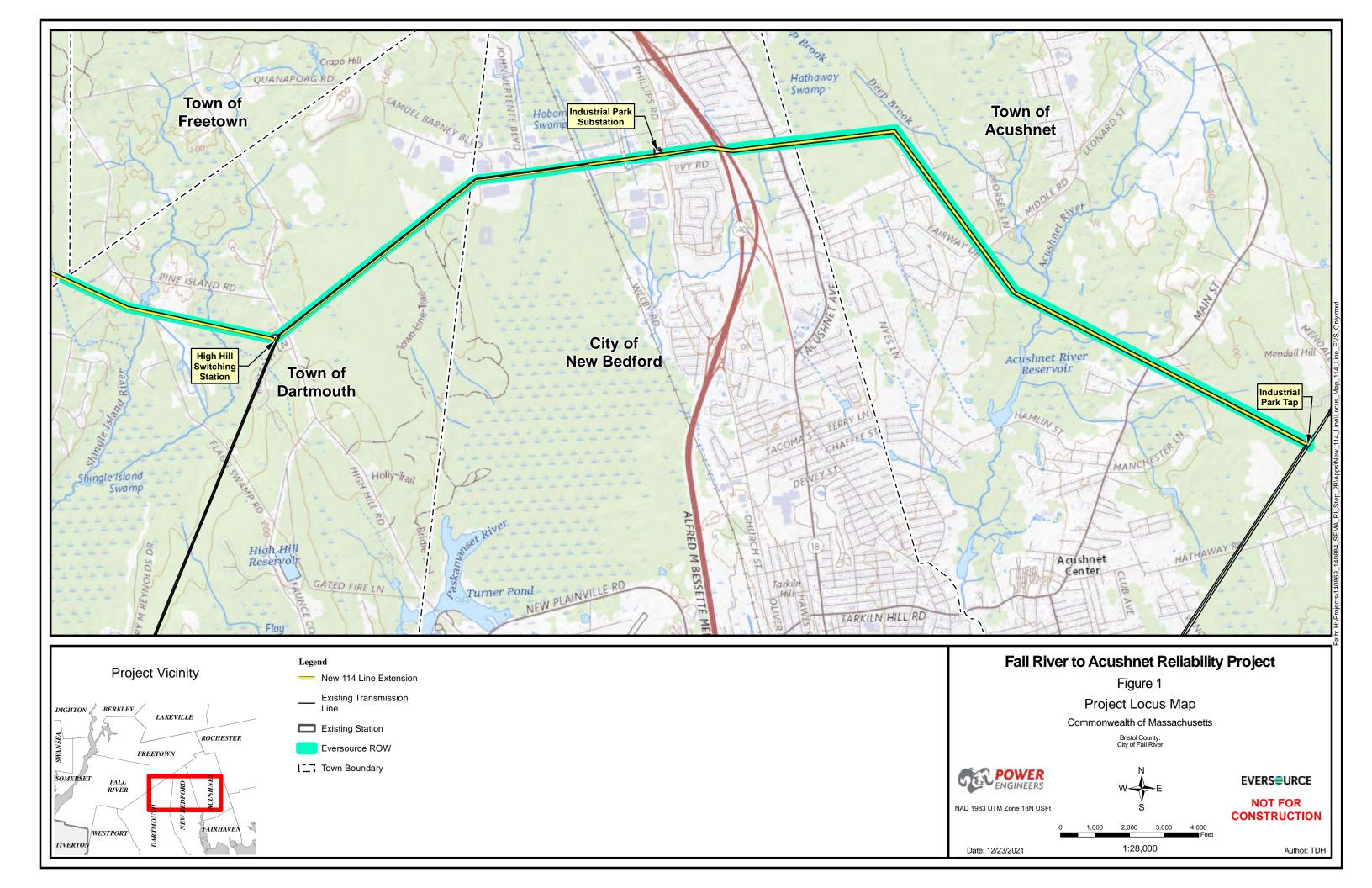
ATV	all-terrain vehicle
BLSF	Bordering Land Subject to Flooding
BMP(s)	Best Management Practice(s)
BVW	Bordering Vegetated Wetland
cm	centimeter
CMR	Code of Massachusetts Regulations
CVP	Certified vernal pool
dbh	diameter at breast height
Eversource	NSTAR Electric Company d/b/a Eversource Energy
MassDEP	Massachusetts Department of Environmental Protection
NHESP	Massachusetts Natural Heritage and Endangered Species Program
NEP	New England Power Company d/b/a National Grid
PEM	Palustrine Emergent
PFO	Palustrine Forested
POWER	POWER Engineers Consulting, PC
Project	Acushnet to Fall River Reliability Project
PSS	Palustrine Scrub-Shrub
PUB	Palustrine Unconsolidated Bottom
PVP	Potential vernal pool
RFA	Riverfront Area
ROW(s)	Right(s)-of-Way
WPA	Massachusetts Wetlands Protection Act

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1.0 INTRODUCTION

NSTAR Electric Company d/b/a Eversource Energy (Eversource) and the New England Power Company d/b/a National Grid (NEP) are proposing to undertake the Acushnet to Fall River Reliability Project (Project) to improve the electric transmission reliability in the southeastern Massachusetts area. The Project consists of the installation of a new electric transmission line extending from Eversource's Industrial Park Tap in Acushnet to NEP's existing Bell Rock Substation in Fall River. The proposed Project includes the installation of approximately 12.1 miles of new primarily overhead electric transmission line traversing the municipalities of Acushnet, New Bedford, Dartmouth, and Fall River in Bristol County, Massachusetts (Figure 1). Two small sections of underground cable are proposed (a total of approximately 600 linear feet) to avoid multiple overhead line crossings at Eversource's Industrial Park Tap and High Hill Substation locations. The new line will be located entirely within existing rights-of-way (ROWs) currently occupied by existing transmission lines. Of the 12.1 miles, approximately 7.9 miles are in Eversource service territory and approximately 4.2 miles are in NEP service territory traversing the city of Fall River (see Figure 1).

This report pertains to the proposed Project facilities for Eversource's portion of the Project in Acushnet, New Bedford, and Dartmouth. Field assessments for the Eversource portion of the Project within the existing transmission line ROW (hereafter referred to as the "Survey Area") were conducted from 2018 through 2019 and in 2021.



2.0 DETAILED WILDLIFE HABITAT EVALUATION

This document presents the results of a wildlife habitat evaluation conducted on the Eversource portion of the ROW pursuant to the Massachusetts Wetland Protection Act ([WPA] M.G. L. c. 131 §40) and associated Regulations (310 Code of Massachusetts Regulations [CMR] 10.00) addressing Wildlife Habitat Evaluations (310 CMR 10.60) and the procedures and methods detailed in the Massachusetts Department of Environmental Protection (MassDEP) *Massachusetts Wildlife Habitat Protection Guidance for Inland Wetlands* (Guidance; MassDEP 2006). The Project qualifies as a "limited project" (310 CMR 10.53 (3)(d)) for the construction, reconstruction, operation, and maintenance of underground and overhead public utilities such as transmission lines; under which the issuing authority (Conservation Commissions/MassDEP) is empowered with the discretion to either waive or require wildlife habitat evaluations (MassDEP 2006).

The analysis was undertaken because the Project exceeds review thresholds for wildlife habitat alteration under the WPA, as implemented by the Wetlands Regulations (310 CMR 10.00). Cumulatively, anticipated impacts to Bordering Vegetated Wetland (BVW) and Bordering Land Subject to Flooding (BLSF) are greater than 5,000 square feet due to temporary (construction) impacts associated with construction mats and permanent wetland conversion associated with structure installation. However, in accordance with 310 CMR 10.53 (3)(d), the Project qualifies as a limited project for the construction, reconstruction, operation, and maintenance of underground and overhead public utilities, such as transmission lines.

As a limited project, completion of a wildlife habitat evaluation may be required at the discretion of the issuing authority. Eversource has elected to proactively undertake an Appendix B Detailed Wildlife Habitat Evaluation (Habitat Evaluation) for areas affected by the Project. This documentation is consistent with the standards of the MassDEP Guidance.

Habitat features or characteristics were evaluated in the Survey Area based on characteristics identified on the Guidance detailed data form (Attachment A). Important wildlife habitat features found during the field analyses includes:

- Upland/wetland food plants (hard mast and fruit).
- Shrub thickets/streambeds with abundant earthworms.
- Shrub vegetation suitable for veery nesting.
- Standing dead trees (snags) and tree cavities.
- Potential small mammal burrows.
- Dense herbaceous cover.
- Large woody debris on ground.
- Rocks under the water's surface.
- Overhanging shrub branches at, or within one meter above the water's surface.
- Rock piles and crevices suitable as potential habitat.
- Depressions that serve as vernal pools.
- Standing water present at least part of the growing season for use by non-breeding amphibians.

- Standing water present at least part of the growing season suitable for use by turtles and foraging waterfowl.
- Sphagnum hummocks or mats directly adjacent to pools of standing water in spring for use by the four-toed salamander (*Hemidactylium scutatum*).
- Flat rocks within exposed portions of streambeds.
- Areas of ice-free open water in winter.
- Emergent vegetation at least seasonally flooded during the growing season.
- Perennial and intermittent streams.

Representative photographs of habitat characteristics within each impacted resource area are presented in Attachment B. The remainder of this document includes state agencies' rare species consultations (Section 4.0), best management practices (BMPs) which will be used throughout the course of Project activities (Section 5.0), anticipated Project impacts to wildlife habitat with potential mitigation actions listed to offset Project impacts (Section 6.0), and an adverse effect analysis and conclusion (Section 7.0).

3.0 EXISTING HABITAT CONDITIONS

3.1 Important Habitat Features

Wildlife habitat features and characteristics identified by the MassDEP Guidance were field evaluated in every wetland resource area (BVW and BLSF) to be impacted by the Project and documented on the detailed data forms (Attachment A). The following wetland resource areas are located in the Survey Area: 32 BVWs, seven BLSF, and five river front areas (RFAs). The BLSF is associated with Hathaway Swamp in Acushnet, BVW D54, BVW D55, BVW D35, BVW D25, BVW D 24, Shingle Island Swamp in Dartmouth, and BVW D65. The RFA is associated with perennial streams SD-54 (Acushnet River), SD-35, SD-25, SD-25A, and SD-22 (Shingle Island River). Project impacts include temporary work pads and access routes, and permanent structure installations. In a few locations where multiple sites of impact would take place in a wetland resource area, a representative site was selected to document wildlife habitat characteristics. Wildlife habitat information was collected at a total of 39 locations.

Based on the United States Fish and Wildlife Service's National Wetlands Inventory classification system (Cowardin et al. 1979), wetlands to be impacted by the Project are predominately scrub-shrub wetlands (PSS). However, two other community types were also identified in the Survey Area: Palustrine Emergent (PEM), and Palustrine Forested (PFO).

A variety of suburban wetland wildlife species utilize these habitats including an assemblage of mammals (chiefly small other than white-tailed deer [*Odocoileus virginianus*] and eastern coyote [*Canis latrans* var.]), songbirds, reptiles, amphibians, and invertebrates. These wetland habitats provide feeding, nesting, breeding, and cover opportunities for wildlife where the wetlands are already embedded in a large area of natural habitat. Characteristics of the shrub and forest wetlands which provide necessary resources for wildlife include: berry-producing shrubs for food sources; young, developing shrubs providing an understory for cover; localized areas of surface water in the form of depressions or vernal pools; and standing dead trees offering the potential for cavities and perches.

Listed in the sections below is a comprehensive overview of the wildlife habitat evaluation characteristics observed during the field surveys. The listed habitat characteristics are those identified on the MassDEP detailed habitat evaluation data forms (Attachment A) that are relevant to Project wetland resource areas. At the end of Section 3.0 are several tables, where each table is a summary of these data forms in Attachment A designated by each town or city (Table 1 (Acushnet), Table 2 (New Bedford), and Table 3 (Dartmouth)).

TABLE 1	EXISTING WILDLIFE HABITAT FEATURES IN ACUSHNET, MASSACHUSETTS
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HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN, ETC.)
Wildlife Food:	BVW D64	Present	Highbush blueberry and maleberry.
Upland/wetland food plants (hard mast and fruit)	BVW D62	Present	Highbush blueberry, arrowwood, common blackberry, scrub oak, roundleaf greenbrier.
	BVW D59	Present	Silky dogwood, multiflora rose, gray birch, and goldenrod
	BVW D58	Present	Winterberry, Asian bittersweet, fox grape.
	BVW D55	Present	Maleberry and highbush blueberry.
	BVW D54	Present	Maleberry, highbush blueberry, arrowwood, willows, roundleaf greenbrier.
	BVW D51	Present	Silky dogwood.
	BVW D50	Present	Winterberry, silky dogwood, common blackberry, highbush blueberry.
	BVW D48	Present	Willow, silky dogwood, maleberry, highbush blueberry, roundleaf greenbrier.
	Upland BLSF near BVW D47	Present	Highbush blueberry, maleberry, roundleaf greenbrier.
Shrub thickets/streambeds with abundant earthworms (American woodcock)	BVW D50	Present	Earthworms were observed in the soil pit during the Jan. 2019 evaluations in a dense shrub community comprised of sweet pepperbush.
Shrub/herbaceous vegetation suitable for veery nesting	BVW D64	Present	BVW D64 provides dense shrub thickets comprised of sweet pepperbush, highbush blueberry, and maleberry. No veerys were observed during field evaluations.
	BVW D62	Present	BVW D62 provides dense shrub thickets comprised of highbush blueberry, arrowwood, meadowsweet and steeplebush. No veerys were observed during field evaluations.
	BVW D59	Present	BVW D59 provides dense shrub thickets comprised of silky dogwood, multiflora rose, and gray birch. No veerys were observed during field evaluations.
	BVW D54	Present	Portions of BVW D54 provide shrub thickets comprised of sweet pepperbush, maleberry, white meadowsweet, and alder. No veerys were observed during field evaluations.
	BVW D48	Present	Portions of BVW D48 provide dense shrub thickets comprised of highbush blueberry, sweet pepperbush, willows, meadowsweet, silky dogwood, and steeplebush. No veerys were observed during field evaluations.
Small mammal burrows	BVW D48	Present	One small mammal burrow is present under a rock.

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN, ETC.)
	Upland BLSF near BVW D47	Two burrows	Two potential small mammal burrows are present under rocks.
Dense herbaceous cover (voles,	BVW D64	Present	Common woolsedge and soft rush.
small mammals, amphibians, and reptiles).	BVW D62	Present	Goldenrods.
	BVW D59	Present	Goldenrods and grasses.
	BVW D58	Present	Common reed, sensitive fern, goldenrods.
	BVW D56	Present	Goldenrods, soft rush, sensitive fern, marsh fern.
	BVW D55	Present	Common reed and sensitive fern.
	BVW D54	Present	Sensitive fern, soft rush, goldenrods, deer-tongue rosette-panicgrass.
	BVW D53	Present	Common reed.
	BVW D51	Present	Purple loosestrife, goldenrods, deer-tongue rosette- panicgrass, common reed.
	BVW D50	Present	Deer-tongue rosette-panicgrass, goldenrods, cinnamon fern.
	BVW D48	Present	Sedges, soft rush, goldenrods, cinnamon fern, common reed, bushy bluestem.
	Upland BLSF near BVW D47	Present	Goldenrods, grasses, bushy bluestem.
Large woody debris on ground (voles,	BVW D58	Present	One fallen red maple tree on the ground.
small mammals, amphibians, and reptiles).	BVW D50	Present	Large woody debris on the ground.
Rocks, crevices, logs, tree roots, or hummocks under water's surface (turtles, snakes, frogs)	BVW D62	Present	Rocks are present under the water's surface in the intermittent stream SD62.
Rocks, crevices, fallen logs, overhanging branches or hummocks at, or within 1 meter above the water's surface (turtles, snakes, frogs)	BVW D62	Present	Overhanging branches over intermittent SD-62 provides perching opportunities for turtles, snakes, and frogs.
Rock piles, crevices, or hollow logs	BVW D54	Present	A rock wall is located adjacent to BVW D54 offering potential cover and nesting opportunities for small mammals. There is also a rock pile providing potential cover for small mammals.
	BVW D50	Present	Several rock crevices with openings provide potential habitat for small mammals.
	BVW D48	Present	Several rock crevices with openings provide potential habitat for small mammals. One potential den is under a rock suitable for a medium-sized mammal.

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN, ETC.)
	Upland BLSF near BVW D47	Present	One rock crevice with an opening provides potential habitat for a small mammal. Several stone piles present.
Depressions that may serve as seasonal (vernal/autumnal) pools	BVW D50	Present	A Vernal Pool is located in BVW D50.
Standing water present at least part of non-breeding amphibians for foraging			for use by breeding amphibians as well as for
Suitable for non-breeding amphibians	BVW D64	Present	
Suitable for non-breeding amphibians	BVW D62	Present	
Suitable for non-breeding amphibians	BVW D59	Present	
Suitable for non-breeding amphibians	BVW D55	Present	
Suitable for non-breeding amphibians	BVW D54	Present	
Suitable for breeding and non- breeding amphibians	BVW D53	Present	
Suitable for non-breeding amphibians	BVW D51	Present	
Suitable for breeding and non- breeding amphibians	BVW D50	Present	A Vernal Pool is located in BVW D50.
Suitable for breeding and non- breeding amphibians	BVW D48	Present	A ditch flows through a portion of the impact area.
Standing water present at least part of the growing season suitable for use by turtles and foraging waterfowl	BVW D62	Present	There is one pool within intermittent stream SD62 that may be suitable for turtles.
Sphagnum hummocks or mats, moss- covered logs or saturated logs, overhanging or directly adjacent to	BVW D64	Present	Sphagnum moss mats adjacent to pools of standing water are present, providing potentially suitable habitat for four-toed salamanders.
pools of standing water in spring (four-toed salamander)	BVW D48	Present	Sphagnum moss mats adjacent to pools of standing water are present, providing potentially suitable habitat for four-toed salamanders.
	BVW D54	Present	During the Jan. 2019 evaluation, perennial stream SD54 (Acushnet River) was flowing.
	BVW D53	Present	During the Jan. 2019 evaluation, there was one pool of open water.
Flat rocks and logs on banks or within exposed portions of streambeds (cover for stream salamanders and nesting habitat for dusky salamanders)	BVW D62	Present	Flat rocks are present within intermittent stream SD62 that have the potential to provide cover for stream salamanders.
Areas of ice-free open water in winter	BVW D62	Present	During the Jan. 2019 evaluation, ice-free open water was observed. Intermittent stream SD62 was flowing, and open water was observed in a pool that SD62 flows through.

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN, ETC.)
	BVW D59	Present	During the Feb 2023 evaluation, ice-free open water was observed. Intermittent stream SD59 was flowing, and open water was observed in a pool that SD59 flows through.
	BVW D54	Present	During the Jan. 2019 evaluation, perennial stream SD54 (Acushnet River) was flowing.
	BVW D53	Present	During the Jan. 2019 evaluation, there was one pool of open water.
Perennial and intermittent streams	BVW D62	Present	Stream SD62 is intermittent.
	BVW D59	Present	Stream SD59 is intermittent.
	BVW D54	Present	Stream SD54 (Acushnet River) is perennial.
Persistent emergent vegetation at least seasonally flooded during the growing season	BVW D64	Present	Common woolsedge dominates portions of the wetland and provides potential habitat for red- winged blackbirds due to a > 5 centimeter (cm) water depth.
	BVW D58	Present	Common reed dominates portions of the wetland and provides potential habitat for red-winged blackbirds and marsh wrens due to a > 5 cm water depth.
	BVW D55	Present	Common reed dominates portions of the wetland and provides potential habitat for red-winged blackbirds and marsh wrens due to a > 5 cm water depth.
	BVW D53	Present	Common reed comprises much of the wetland and provides potential habitat for red-winged blackbirds and marsh wrens due to a > 5 cm water depth.
	BVW D51	Present	Purple loosestrife dominates portions of the wetland and provides potential habitat for red-winged blackbirds and marsh wrens due to a > 5 cm water depth.

TABLE 2 EXISTING WILDLIFE HABITAT FEATURES IN NEW BEDFORD, MASSACHUSETTS

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN ETC.)
Wildlife Food: Upland/wetland	BVW D44	Abundant	Highbush blueberry, maleberry, silky dogwood, arrowwood, winterberry.
food plants (hard mast and fruit)	BVW D39	Present	Highbush blueberry, maleberry, willows, arrowwood, common blackberry.
	BVW D38A	Present	Black elderberry and common blackberry.

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN ETC.)
	BVW D35	Present	Maleberry and highbush blueberry.
	BVW D34	Present	Maleberry, common blackberry, and highbush blueberry.
	BVW D32	Present	Maleberry and highbush blueberry.
Shrub/herbaceous vegetation suitable for veery nesting	BVW D44	Present	Portions of BVW D44 provide dense shrub thickets comprised of highbush blueberry, maleberry, silky dogwood and arrowwood. No veerys were observed during field evaluations.
	BVW D41	Present	Portions of BVW D41 provide shrub thickets comprised of white meadowsweet, steeplebush, and sweet pepperbush. No veerys were observed during field evaluations.
	BVW D39	Present	Portions of BVW D39 provide shrub thickets comprised of maleberry, highbush blueberry, white meadowsweet, willows, and arrowwood. No veerys were observed during field evaluations.
	BVW D32	Present	Portions of BVW D32 provide shrub thickets comprised of maleberry, sweet pepperbush, and steeplebush. No veerys were observed during field evaluations.
Standing Dead Trees			
6- 12" diameter at breast height (dbh)	BVW D42	Four trees	Four trees are located on the edge of ROW and have less than 6" dbh unidentified woodpecker holes.
12-18 " dbh	BVW D41	One tree	Snag is on the edge of the ROW with less than 6" dbh unidentified woodpecker holes.
Tree Cavities	BVW D41	One cavity	One tree cavity in a red maple which has a 6-12" dbh.
Small mammal burrows	BVW D41	Present	Two small mammal burrows (possibly woodchuck) were located under a rock.
	BVW D30	Present	One small mammal burrow is located underneath a stone pile.
Dense herbaceous cover	BVW D44	Present	Soft rush, goldenrods, and grasses.
(voles, small mammals, amphibians, and reptiles).	BVW D42	Present	Broad-leaved cattails, purple loosestrife, and grasses.
	BVW D41	Present	Sensitive fern, soft rush.
	BVW D39	Present	Goldenrods, cinnamon fern and sedges.
	BVW D38A	Present	Goldenrods, sedges, soft rush.
	BVW D35	Present	Grasses, sedges, and soft rush.
	BVW D34	Present	Grasses, goldenrods, and bushy bluestem.
	BVW D32	Present	Sedges, bushy bluestem, soft rush, and cinnamon fern.
	BVW D30	Present	Deer-tongue rosette-panicgrass, bushy bluestem, goldenrods, grasses.
Large woody debris on	BVW D40	Present	Fallen logs on ground located near a snag tree.

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN ETC.)
ground (voles, small mammals, amphibians, and reptiles).	BVW D32	Present	Fallen cut logs on the ground.
Standing water present at le non-breeding amphibians fo			Suitable for use by breeding amphibians as well as for
Suitable for non-breeding amphibians	BVW D44	Present	Several pockets of frozen standing water present in February 2019.
Suitable for non-breeding amphibians	BVW D42	Present	Several pockets of frozen standing water present in February 2019.
Suitable for non-breeding amphibians	BVW D41	Present	Several pockets of frozen standing water present in February 2019.
Suitable for breeding and non-breeding amphibians	BVW D39	Present	Pockets of standing water present in February 2019. A ditch flows through a portion of BVW D39. An ABA was present in the access road in July 2021.
Suitable for non-breeding amphibians	BVW D35	Present	Pockets of standing water present in February 2019.
Suitable for non-breeding amphibians	BVW D34	Present	Pockets of standing water present in February 2019.
Suitable for non-breeding amphibians	BVW D32	Present	Pockets of standing water present in February 2019.
Sphagnum hummocks or mats, moss-covered logs or saturated logs, overhanging or directly adjacent to pools of standing water in spring (four-toed salamander)	BVW D44	Present	Sphagnum moss mats adjacent to pools of standing water are present, providing potential habitat for four-toed salamanders. No four-toed salamanders were observed.
Areas of ice-free open water	BVW D42	Present	Pockets of standing water present in February 2019.
in winter	BVW D34	Present	Pockets of standing water were present in February 2019.
Perennial and intermittent streams	BVW D35	Present	SD35 is an intermittent stream.
Persistent emergent vegetation at least seasonally flooded during the growing season	BVW D42	Present	Broad-leaved cattails dominate portions of the wetland and provide potential habitat for such species as wood duck, green heron, black-crowned night heron, king rail, Virginia rail, and coot due to a > 5 cm water depth. These species were not observed during field evaluations.
	BVW D42	Present	Broad-leaved cattails dominate portions of the wetland and provide potential habitat for such species as least bittern and common moorhen due to a > 25 cm water depth. These species were not observed during field evaluations.
	BVW D35	Present	Common reed dominates portions of the wetland and provides potential habitat for red-winged blackbirds and marsh wrens due to a > 5 cm water depth. These species were not observed during field evaluations.

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN ETC.)
Cattail emergent vegetation at least seasonally flooded during the growing season	BVW D42	Present	Broad-leaved cattails dominate portions of the wetland and provide potential habitat for marsh wrens due to a > 5 cm water depth. These species were not observed during field evaluations.
	BVW D42	Present	Broad-leaved cattails dominate portions of the wetland and provide potential habitat for least bittern and common moorhen due to a > 25 cm water depth. These species were not observed during field evaluations.
Fine-leaved emergent vegetation (grasses and sedges) at least seasonally flooded during the growing season (common snipe, spotted sandpiper, sedge wren)	BVW D35	Present	Sedges and grasses dominate portions of the wetland and provide potential habitat for common snipe and spotted sandpiper due to a > 5 cm water depth. These species were not observed during field evaluations.

TABLE 3 EXISTING WILDLIFE HABITAT FEATURES IN DARTMOUTH, MASSACHUSETTS

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN ETC.)
Wildlife Food:	BVW D27	Present	Common blackberry and roundleaf greenbrier.
Upland/wetland food plants	BVW D26	Present	Highbush blueberry, willows, and maleberry.
(hard mast and fruit)	BVW D25	Present	Common blackberry and maleberry.
	BVW D21	Abundant	Maleberry, highbush blueberry, small cranberry.
	BVW D20	Present	Common blackberry, highbush blueberry, maleberry.
Shrub/herbaceous vegetation suitable for veery nesting	BVW D27	Present	Portions of BVW D27 provide dense shrub thickets comprised of sweet pepperbush. No veerys were observed during field evaluations.
Standing Dead Trees	Standing Dead Trees		
6- 12" dbh	BVW D27	One tree	No cavities or perches were observed.
12"-18" dbh	BVW D25	One tree	The tree is located outside the impact area.
12- 18" dbh	BVW D21	Two trees	One of the trees has unidentified woodpecker holes.
Small mammal burrows	BVW D27	Present	Small mammal burrows were present under an old unidentified tree stump and under an unidentified snag tree.
	BVW D21	Present	Small mammal burrows under a rock.
	BVW D20	Present	Small mammal burrows (likely meadow vole) were present.
Dense herbaceous cover	BVW D27	Present	Bushy bluestem and goldenrods.
(voles, small mammals, amphibians, and reptiles).	BVW D26	Present	Cinnamon fern, bushy bluestem, goldenrods, and sedges.
	BVW D25	Present	Common woolsedge, sensitive fern, goldenrods.

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN ETC.)
	Upland RFA of SD23A	Present	Grasses.
	BVW D22	Present	Grasses and sedges.
	BVW D21	Present	Canada rush and switch panicgrass.
	BVW D20	Present	Bushy bluestem and sedges.
Large woody debris on ground (voles, small	BVW D26	Present	Fallen cut logs on the ground, along with tree stumps and a stockpile of tree branches.
mammals, amphibians, and reptiles).	BVW D25	Present	Tree stumps and a few large decaying logs are on the ground.
	BVW D20	Present	One fallen cut log on the ground.
Rocks, crevices, fallen logs, overhanging branches or hummocks at, or within 1 meter above the water's	BVW D21	Present	There are several rocks and one fallen log standing above the water's surface in March 2019. The water level decreases later in the growing season.
Suitable for non-breeding amphibians	BVW D27	Present	
Standing water present at le non-breeding amphibians fo			Suitable for use by breeding amphibians, as well as for
Suitable for breeding and non-breeding amphibians	BVW D26	Present	
Suitable for non-breeding amphibians	BVW D25A	Present	
Suitable for breeding and non-breeding amphibians.	BVW D25	Present	
Suitable for non-breeding amphibians.	BVW D22	Present	
Suitable for breeding and non-breeding amphibians.	BVW D21	Present	
Suitable for non-breeding amphibians.	BVW D20	Present	
Standing water present at least part of the growing	BVW D25	Present	Suitable for turtles and foraging waterfowl in perennial stream SD25.
season suitable for use by turtles and foraging waterfowl	BVW D21	Present	Suitable for turtles and foraging waterfowl.
Areas of ice-free open water in winter	BVW D25	Present	SD25 is a perennial stream that was flowing in winter 2019.
Perennial and intermittent	BVW D25	Present	SD25 is a perennial stream.
streams	BVW D20	Present	SD20 is an intermittent stream.

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN ETC.)
Persistent emergent vegetation at least seasonally flooded during the growing season	BVW D25	Present	Common reed dominates portions of the wetland and provides potential habitat for red-winged blackbirds and marsh wrens due to a > 5 cm water depth. These species were not observed during field evaluations.
	BVW D21	Present	Sedges dominates portions of the wetland and provides potential habitat for wood duck, green heron, black- crowned night heron, king rail, Virginia rail, coot, etc.) wrens due to a > 5 cm water depth. These species were not observed during field evaluations.
Fine-leaved emergent vegetation (grasses and sedges) at least seasonally flooded during the growing	BVW D21	Present	Sedges dominate portions of the wetland and provide potential habitat for common snipe and spotted sandpiper due to a > 5 cm water depth. These species were not observed during field evaluations.
season.	BVW D21	Present	Sedges dominates portions of the wetland and provides potential habitat for least bittern and common moorhen due to a > 25 cm water depth. These species were not observed during field evaluations.

TABLE 4 WILDLIFE OBSERVATIONS AND SIGNS IN ACUSHNET, MASSACHUSETTS

WETLAND RESOURCE AREA	OBSERVED WILDLIFE SPECIES	OBSERVED WILDLIFE SIGNS	
BVW D64	-Red-winged blackbirds -Black-capped chickadee -Spotted turtle	-Eastern coyote scat -White-tailed deer trails -White-tailed deer droppings	
BVW D62	-No observations at times of site visits.	-White-tailed deer trails -White-tailed deer droppings	
BVW D59	-No observations at times of site visits.	-No observations at times of site visits	
BVW D56	-No observations at times of site visits.	-No observations at times of site visits	
BVW D55	-Wood frog egg masses	-No observations at times of site visits	
BVW D54	-Common yellowthroat -American goldfinch -Flock of unidentified sparrow species -Deceased white-footed mouse -Wood frog egg masses -Spotted salamander egg masses - 1 Box turtle laying eggs in buffer zone	-Eastern coyote scat -White-tailed deer browse	
BVW D53	-Wood frog egg masses -Wood frog tadpoles -Spotted salamander egg masses -American toad egg masses -Bullfrog tadpoles	-No observations at times of site visits	
BVW D51	-Wood frog egg masses	-No observations at times of site visits	

WETLAND RESOURCE AREA	OBSERVED WILDLIFE SPECIES	OBSERVED WILDLIFE SIGNS
BVW D50	-Eastern box turtle -Spotted turtle -Red-winged blackbirds	-White-tailed deer browse
Vernal Pool in BVW D50	-Wood frog egg masses -Wood frog tadpoles -Spotted salamander egg mass -Spotted turtle	-No observations at times of site visits
BVW D48	-Black-capped chickadees -Spotted turtle -American toad egg masses -Young American toads -Spring peeper egg masses -Wood frog egg masses	-White tailed deer prints -White-tailed deer browse -White-tailed deer droppings -White-tailed deer bed -Wild turkey eggs (on wetland edge)

TABLE 5 WILDLIFE OBSERVATIONS AND SIGNS IN NEW BEDFORD, MASSACHUSETTS

WETLAND RESOURCE AREA	OBSERVED WILDLIFE SPECIES	OBSERVED WILDLIFE SIGNS	
BVW D44	-Deceased white-tailed deer	-White-tailed deer browse -Eastern coyote scat	
BVW D42	-No observations at times of site visits.	-No observations at times of site visits	
BVW D41	-No observations at times of site visits.	-White-tailed deer droppings -Woodchuck ground holes -Unidentified woodpecker holes in snag trees	
BVW D40	-No observations at times of site visits.	-White-tailed deer droppings	
BVW D39	-Green frog -Wood frog tadpoles	-White-tailed deer browse -White-tailed deer droppings	
BVW D38A	-No observations at times of site visits.	-No observations at times of site visits	
BVW D35	-Eastern garter snake -Eastern box turtle	-No observations at times of site visits	

TABLE 6 WILDLIFE OBSERVATIONS AND SIGNS IN DARTMOUTH, MASSACHUSETTS

WETLAND RESOURCE AREA	OBSERVED WILDLIFE SPECIES	OBSERVED WILDLIFE SIGNS
BVW D34	-Yellow warblers	-No observations at times of site visits
BVW D32	-No observations at times of site visits.	-No observations at times of site visits
BVW D30	-No observations at times of site visits.	-No observations at times of site visits

WETLAND RESOURCE AREA	OBSERVED WILDLIFE SPECIES	OBSERVED WILDLIFE SIGNS
BVW D27	-Eastern towhees -Common yellowthroat -Green frog -Eastern ribbon snake -Wood frog egg masses -Spotted salamander egg masses -Bullfrog tadpoles	-White-tailed deer droppings -Small mammal burrow
BVW D26	-Wood frog egg masses -Deceased adult wood frog	-No observations at times of site visits -White-tailed deer droppings
BVW D25A	-No observations at times of site visits.	-White-tailed deer droppings
BVW D25	-Eastern towhees -American robins -American goldfinch -Spotted turtles -Green frog -White-tailed deer	-White-tailed deer droppings -Wood frogs calling
Upland RFA of stream SD23A	-No observations at times of site visits.	-No observations at times of site visits
BVW D22	-Yellow warblers	-No observations at times of site visits
BVW D21	-Mallards -Brown-headed cowbird -Gray catbirds -Yellow warblers -Canada goose -Tree swallows -Four-toed salamander	-Wood frogs calling -Spring peepers calling -Green frog calling
BVW D20	-No observations at times of site visits.	-Meadow vole burrows

3.1.1 Upland / Wetland Food Plants (Hard Mast and Fruit)

A variety of native and invasive shrubs and woody vines in the Survey Area provide fruit and seeds for wildlife food, particularly to birds and mammals inhabiting and using the Survey Area. A majority of the BVWs and the upland BLSF associated with Hathaway Swamp provide food sources for wildlife. Common native shrubs serving as a wildlife food sources include highbush blueberry (*Vaccinium corymbosum*), winterberry (*Ilex verticillata*), maleberry (*Lyonia ligustrina*), willows (*Salix* spp.), and common blackberry (*Rubus allegheniensis*). The native woody vine roundleaf greenbrier (*Smilax rotundifolia*) also provides fruit for wildlife. Refer to Tables 1 through 3 for a list of food plants in each resource area by city or town: Table 1 (Acushnet), Table 2 (New Bedford), and Table 3 (Dartmouth).

3.1.2 Shrub Thickets/Streambeds with Abundant Earthworms

Only BVW D50 in Acushnet contained features that may provide American woodcock (*Scolopax minor*) habitat. BVW D50 contained a dense shrub thicket of sweet pepperbush (*Clethra alnifolia*) and

earthworms were observed within the soil. No American woodcocks were observed during the wildlife habitat evaluations.

3.1.3 Shrub/Herbaceous Vegetation Suitable for Veery Nesting

Nine BVWs contained a dense assemblage of native shrub species which may provide potential nesting opportunities for the veery (*Catharus fuscescens*). These birds prefer dense shrub or woodland habitats which are damp (DeGraaf and Yamasaki 2001). Dense shrub cover in the BVWs included sweet pepperbush, highbush blueberry, and maleberry. No veerys were observed during the habitat evaluations. Refer to Table 1 (Acushnet), Table 2 (New Bedford), and Table 3 (Dartmouth) for a list of BVWs and the species comprising the dense shrub layer cover species.

3.1.4 Standing Dead Trees (Snags) and Tree Cavities

Standing dead trees, also known as snags, provide feeding, nesting, denning, roosting, or perching areas for wildlife. The particular tree species of the snags were all unidentifiable in the field. Several class ranges were observed throughout the Survey Area. Five resource areas total contained snag trees. Two resource areas in New Bedford (BVW D42 and BVW D41) contained snag trees with a diameter at breast height (dbh) range of 6 to 12 inches and a dbh range of 12 to 18 inches. Three resource areas in Dartmouth (BVW D27, BVW D25, and BVW D21) contained snag trees. Four snag trees were recorded with a dbh range of 6 to 12 inches in BVW D42 and one snag tree was recorded with a dbh range of 12 to 18 inches in BVW D41. In Dartmouth, BVW D27 contained one snag tree with a dbh range of 6 to 12 inches, while BVWs D27 and D25 each contained one snag tree in the 12 to 18 inches range. Refer to Tables 2 and 3 for more detail on snag trees in the five resource areas. In addition, BVW D41 in New Bedford contained one tree cavity with a class range of 6 to 12 inches in a red maple (*Acer rubrum*) tree.

Woodpeckers such as the downy woodpecker (*Picoides pubescens*) or the hairy woodpecker (*Picoides villosus*) feed on wood-boring larvae beetles found in snags; thereby creating holes or nesting cavities in snag trees while trying to access the beetles. Several of these snag trees contained woodpecker (*Picoides*) holes in BVWs D42 and D41 in New Bedford and BVW D21 in Dartmouth. Smaller snags provide nesting or feeding sites for such suburban birds as the black-capped chickadee (*Poecile atricapillus*), the tufted titmouse (*Baeolophus bicolor*), and the white-breasted nuthatch (*Sitta carolinensis*). Small mammals, such as the Eastern gray squirrel (*Sciurus carolinensis*) may den in tree cavities during the winter (DeGraaf and Yamasaki 2001).

3.1.5 Potential Small Mammal Burrows

Several resource areas contained small mammal burrows, which were most likely either Eastern chipmunk (*Tamias striatus*), woodchuck (*Marmota monax*), or meadow vole (*Microtus pennsylvanicus*). Eastern chipmunks create underground nests with extensive tunnel systems. Meadow voles create underground burrows and cache food for the winter. Woodchucks also create extensive underground burrows that contain numerous chambers. In Acushnet, BVW D48 and the upland BLSF associated with Hathaway Swamp contained small burrows where the openings were observed under rocks. Two BVWs in New Bedford (D41 and D30) contained small mammal burrows where the entrances were also located under rocks. In Dartmouth, three BVWs (D27, D25, and D21) contained small mammal burrows where several of the burrow entrances were located under either tree stumps and snag trees or rocks.

3.1.6 Dense Herbaceous Cover

Herbaceous cover is defined as all non-woody plants regardless of size and woody vegetation less than 3.28 feet tall. Dense herbaceous cover in the BVWs was predominately present as non-woody emergent vegetation including a variety of species. Taller more persistent emergent vegetation included the invasive common reed (*Phragmites australis*), broad-leaved cattails (*Typha latifolia*), and common woolsedge (*Scirpus cyperinus*). Shorter, common herbaceous vegetation that offers dense cover for wildlife include sensitive fern (*Onoclea sensibilis*), cinnamon fern (*Osmundastrum cinnamomeum*), bushy bluestem (*Andropogon glomeratus*), deer-tongue rosette-panicgrass (*Dichanthelium clandestinum*), and a variety of goldenrods (*Solidago* spp.). Refer to Table 1 (Acushnet), Table 2 (New Bedford), and Table 3 (Dartmouth) for a list of dense herbaceous cover species within each resource area.

3.1.7 Large Woody Debris on Ground

Large woody debris on the ground was identified near several impact areas in Acushnet, New Bedford, and Dartmouth. Several of the BVWs had fallen cut trees in the impact areas as well as fallen natural woody debris. These areas included BVWs D58 and D50 in Acushnet, BVWs D40 and D32 in New Bedford, and BVW D26, BVW D25, and BVW D20 in Dartmouth. Fallen trees provide potential denning sites within the decaying interior of the logs (Hagan and Grove 1999). Decaying logs also provide food sources for a variety of insects residing within the decaying logs, and cover for specific woodland amphibian species including the red-back salamander (*Plethodon cinereus*) (DeGraaf and Yamasaki 2001). Refer to Table 1 (Acushnet), Table 2 (New Bedford), and Table 3 (Dartmouth) for a description of large woody debris in the Survey Area.

3.1.8 Rocks Under the Water's Surface

Rocks are present under the water's surface in intermittent stream SD-62 in Acushnet. Rocks within a stream system have the potential to provide cover for turtles, snakes, and frogs utilizing the intermittent stream.

3.1.9 Rocks and Overhanging Branches at or within One Meter Above the Water's Surface

Branches within one meter above the water's surface can provide perching locations for many wildlife species such as amphibians, turtles, and birds. Two areas had either overhanging rocks or branches above the water's surface that provide cover for aquatic species or perching opportunities about the water's surface for small mammals, birds, amphibians, and reptiles. Intermittent stream SD-62 in Acushnet had branches hanging over the stream providing perching opportunities. BVW D21 in Dartmouth several rocks and one fallen log were standing above the water's surface in March 2019 within the impact area. However, the water level decreases later in the growing season in this area. Rocks and logs provide cover for aquatic species.

3.1.10 Rock Piles and Crevices

Rock piles and crevices provide habitat for denning mammals. Four resource areas in Acushnet (BVW D54, BVW D50, BVW D48, and Upland BLSF) provide either rock walls or rock crevices for denning sites or temporary cover for small mammals. BVW D54 contains a rock wall that can be used for small mammal habitat.

Refer to Table 1 for further descriptions of the rock piles and crevices within the resource areas in Acushnet.

3.1.11 Depressions that may Serve as Vernal Pools

The WPA defines vernal pool habitat as confined basin depressions that typically hold water for two continuous months during the spring and are free of adult fish populations. These areas provide essential breeding habitat for a variety of amphibian species such as wood frogs and the spotted salamander. Certified vernal pools (CVPs) are those that have been certified by the Massachusetts Natural Heritage and Endangered Species Program (NHESP) according to the Guidelines for Certification of Vernal Pool Habitat (NHESP 2018) and are protected if they fall under the jurisdiction of the WPA. CVPs are also afforded protection under Section 401 of the federal Clean Water Act, the Massachusetts Surface Water Quality Standards that relate to Section 401, and the Massachusetts Forest Cutting Practices Act. No CVPs are identified to occur in the Survey Area (NHESP 2021). Potential vernal pools (PVPs) have also been mapped by NHESP but do not receive protection under the WPA or under any other state or federal wetlands protection laws (NHESP 2021.)

Surveys along the Eversource ROW were conducted in the spring of 2018 and the spring of 2021. The surveys were scheduled after the first significant rain events, when the majority of evening low temperatures were expected to remain in the 40s (degrees Fahrenheit). These weather conditions promote inward migration of amphibians to the pools for the purpose of breeding. Biologists conducted visual surveys and used dip nets to sweep the water column to determine the presence or absence of amphibians and other vernal pool species. When heard, choruses of breeding frogs were also noted.

Field identified vernal pools included areas that held standing water and exhibited obligate breeding species during the breeding season and met state and federal vernal pool criteria. The areas classified as field identified vernal pools were located in either an isolated depression in an upland system or within a distinct depression in a wetland system, such as an area of inundation within a WPA-regulated BVW. In addition, several vernal pools were located within disturbed depressional wetlands predominately created from all-terrain vehicle (ATV) trails. These depressional areas were deep enough and with a hydroperiod able to support obligate amphibian egg mass development and maturation.

Isolated vernal pools occurring in a terrestrial environment were identified, recorded and surveyed in the field. In cases where wetland systems exhibited expansive flooding and contained depressions where obligate vernal pool species were breeding, the breeding evidence was recorded and the areas were field identified and surveyed. Such determinations were made by field biologists during the surveys.

Obligate vernal pool species observed during the Eversource ROW vernal pool investigations include wood frogs and spotted salamanders. Facultative species observed during the Eversource ROW vernal pool surveys include American toads (*Bufo americanus*) and spring peepers (*Pseudacris crucifer*).

Table 7 lists vernal pools impacted by the Project.

WETLAND RESOURCE AREA	POOL TYPE	EXISTING COVER TYPE	AVERAGE WATER DEPTH (IN.)	MAXIMUM WATER DEPTH (IN.)	OBLIGATE SPECIES OBSERVED	FACULTATIVE SPECIES OBSERVED
BVW D50 Acushnet	Vernal Pool	PSS	8 (2018) 12 (2021)	12 (2018) 15 (2021)	-4 wood frog egg masses -1 spotted salamander egg mass - ~50 wood frog tadpoles	-1 spotted turtle

TABLE 7 VERNAL POOLS TO BE IMPACTED IN THE SURVEY AREA

3.1.12 Standing Water Present at Least Part of the Growing Season

Shallow pockets of standing water occur throughout several of the BVWs in the Survey Area in Acushnet, New Bedford, and Dartmouth. These water-filled depressions provide non-breeding amphibians foraging and rehydration opportunities. Water was present in a majority of BVWs during the wildlife habitat evaluations from January-March 2019. The presence of standing water observed during the wetland delineations in spring 2018, as well as during the vernal pool investigations in spring 2018 and spring 2021 suggests that standing water remains in these pockets into the growing season.

Refer to Tables 1 through 3 for a description of standing water in each resource area by city or town: Table 1 (Acushnet), Table 2 (New Bedford), and Table 3 (Dartmouth).

3.1.13 Sphagnum Hummocks or Mats Directly Adjacent to Pools of Standing Water in Spring

Three BVWs contain sphagnum mats adjacent to pools of standing water that provide potential habitat for four-toed salamanders. BVWs D64 and D48 in Acushnet and BVW D44 in New Bedford provide these habitat characteristics. Four-toed salamanders prefer wetlands dominated by sphagnum moss and the larvae are usually found in slow-moving streams or small pools (NHESP 2010).

A four-toed salamander was observed in BVW D21 in Dartmouth during May 2018.

3.1.14 Flat Rocks within Streams

The presence of flat rocks within streams provides cover for stream salamanders. In intermittent stream (SD62) in Dartmouth several medium-sized flat rocks were observed in the stream channel which may possibly provide cover for stream salamanders.

3.1.15 Areas of Ice-Free Open Water in Winter

Portions of the Survey Area were evaluated in January and February 2019, allowing the opportunity to assess the wildlife habitat characteristic of ice-free open water in winter. There were several areas with flowing and ice-free water providing rehydration and foraging opportunities for resident wildlife species within the Survey Area. These areas include several streams: intermittent stream SD-D59 and SD-62 in Acushnet, perennial stream SD-54 in Acushnet, and perennial stream SD-25 in Dartmouth. In addition, there were a few areas of open water in BVW D53 in Acushnet and BVWs D42 and D34 in New Bedford during winter 2019.

3.1.16 Persistent Emergent Wetland Present (Flooded > 5 cm)

Emergent wetlands, also classified as marshes, are characterized by persistent emergent vegetation. The predominant emergent plants colonizing the marshes in the Survey Area are common reed and broad-leaved cattails. Additional persistent emergent species include common woolsedge and purple loosestrife Five BVWs in Acushnet (D64, D58, D55, D53, and D51) contain persistent emergent vegetation at least seasonally flooded during the growing season. A majority of these wetlands are dominated by common reed. Refer to Table 1 for a further description of each BVW in Acushnet where this characteristic is present. Standing water (with a depth > 5 centimeters [cm]) was present during the winter and spring wildlife habitat evaluations and standing water is expected to continue into the growing season. Redwinged blackbirds and marsh wrens are bird species which use common reed for nesting (Benoit and Askins 1999).

In New Bedford, two BVWs (D42 and D35) are dominated by persistent emergent vegetation with a standing water depth >5 cm. BVW D35 is dominated by common reed, providing habitat for red-winged blackbirds and marsh wrens. BVW D42 is dominated by broad-leaved cattails providing habitat for marsh wrens. BVW D42 may also provide habitat for additional waterfowl species such as wood duck (*Aix sponsa*), green heron (*Butorides virescens*), black-crowned night heron (*Nycticorax nycticorax*), king rail (*Rallulus elegans*), Virginia rail (*Rallus limicola*), and coot (*Fulica americana*). However, these species were not observed during the evaluations. Refer to Table 2 for further descriptions of these BVWs in New Bedford.

In Dartmouth, BVW D25 is dominated by common reed providing habitats for red-winged blackbirds and marsh wrens. BVW D21 is dominated by sedges that may also provide habitats for wood duck, green heron, black-crowned night heron, king rail, Virginia rail, and coot. There species were not observed during the evaluations. Refer to Table 3 for further descriptions of these BVWs in Dartmouth.

3.1.17 Persistent Emergent Wetland Present (Flooded > 25 cm)

During the spring 2019 wildlife habitat evaluation, standing water was present in pockets >25 cm within one wetland, BVW D42 in New Bedford. Broad-leaved cattails dominate the emergent wetland portion of BVW D42. Least bitterns (*Ixobrychus exilis*) and common moorhens (*Gallinula galeata*) are bird species which may use this habitat for nesting where the standing water is > 25 cm (DeGraaf and Yamasaki 2001). However, these species were not observed during the evaluations.

3.1.18 Fine-Leaved Emergent Vegetation Present (Flooded > 5 cm)

Two wetlands in the Survey Area had areas dominated by fine-leaved emergent vegetation with standing water >5 cm, providing potential habitat for such avian species as common snipe (*Gallinago gallinago*) and spotted sandpiper (*Actitis macularius*). BVW D35 in New Bedford was dominated by sedges and grasses while BVW D21 in Dartmouth was dominated by sedges. None of the above listed avian species were observed during the field evaluations.

3.1.19 Fine-Leaved Emergent Vegetation Present (Flooded > 25 cm)

One wetland in the Survey Area, BVW D21 in Dartmouth contained fine-leaved emergent vegetation (sedges) with standing water > 25 cm, providing potential habitat for least bitterns and common moorhens. These species were not observed.

3.1.20 Perennial and Intermittent Streams

One perennial stream and three intermittent streams have anticipated impacts. These include one perennial stream SD25 flowing through BVW D25 and one intermittent stream SD20 flowing through BVW SD20 in Dartmouth. In Acushnet, anticipated stream impacts include two intermittent streams, SD62 flowing through BVW D62 and SD59 flowing through BVW D59.

Streams provide a variety of purposes in the landscape which include wildlife habitat for birds, amphibians, reptiles, and insects. Streams assist with groundwater recharge, improving water quality, and serve as travel corridors for wildlife species (Mitch and Gosselink 2015).

3.1.21 Wildlife Habitat Characteristics Summary

Summarized in Table 1 (Acushnet), Table 2 (New Bedford), and Table 3 (Dartmouth) are the wildlife habitat characteristics discussed in Sections 3.1.1 through 3.1.20 that were observed at the 29 sites during the field surveys. Ten wetlands and one upland BLSF are presented in Table 1, (Acushnet), seven wetlands are presented in Table 2 (New Bedford), and 11 wetlands are presented in Table 3 (Dartmouth) from east to west in the Study Area beginning at the Industrial Tap in Acushnet and heading westward to the Fall River/Dartmouth Town line.

Wildlife observation and signs were also collected during the field wildlife habitat evaluations and are listed in Table 4 (Acushnet), Table 5 (New Bedford), and Table 6 (Dartmouth).

3.2 Landscape Context

In addition to the site-specific habitat characteristics, the MassDEP Guidance more broadly addresses landscape context such as habitat continuity and connectivity, as well as the effects of existing habitat degradation.

The existing utility ROWs in the Survey Area serve as a connector to adjacent areas of habitat and are, therefore, important for connectivity with adjoining natural habitats. Portions of the Project area are surrounded by upland and wetland forests through the town of Acushnet, the city of New Bedford, and the town of Dartmouth. In several areas, the ROW is also adjacent to residential communities in these three towns. The ROW also crosses though a few agricultural areas in Dartmouth and Acushnet, which include hay fields and a Christmas tree farm. Existing infrastructure traversed by the Survey Area includes the New Bedford Business Park and a four-lane highway (Route 140) in New Bedford.

Wildlife currently inhabiting the Project area is accustomed to the existing infrastructure in the area. The existing ROW provides natural shrubland habitats embedded within large tracts of continuous and connected forest habitats. The Project is not anticipated to permanently impact the integrity of the bordering forest land as a wildlife habitat connector to the adjacent forests. After Project completion, the ROWs will continue to serve a role as a landscape connector to wildlife habitats, as well as providing habitats for wildlife species.

3.3 Habitat Degradation

The representative wetland impact areas reviewed during the wildlife habitat evaluation have all been subject to previous alterations, predominately from the existing Eversource infrastructure and mild habitat degradation as a result of recreation activities, including ATV usage.

Several wetlands contain invasive species. The dominant invasive species are common reed, purple loosestrife (*Lythrum salicaria*), and multiflora rose (*Rosa multiflora*).

No observations of trash dumping, chemical contamination, or erosion and sedimentation problems were observed within the Survey Area while conducting the wildlife habitat evaluation, wetland surveys, and vernal pool investigations.

All wetlands have been altered to some degree from the Eversource ROW, chiefly by removal of trees. Temporary disturbances will continue to occur along the existing transmission line ROW since Eversource conducts a regular vegetation maintenance program of the existing transmission line ROWs. Eversource's ROW vegetation practices encourage the growth of low-growing shrubs and other vegetation which provide a degree of natural vegetation control. Vegetation management is necessary to ensure the reliable and safe delivery of electric services to Eversource customers. This is accomplished by allowing for the proper clearance between vegetation and electrical conductors and supporting structures. Vegetation maintenance will continue to occur in accordance with Eversource's current approved Vegetation Management Plan for Central, Eastern, and Southeastern Massachusetts.

4.0 RARE SPECIES

Eversource evaluated state agencies' data to determine whether any Massachusetts State-listed, and/or -proposed, -endangered, or -threatened species or critical habitats are known to occur in the Project ROWs. This section addresses the consultation process with the Massachusetts NHESP which is part of the Massachusetts Division of Fisheries and Wildlife. The identified wildlife species are discussed below.

Based on coordination with the Massachusetts NHESP, three NHESP-mapped priority habitat polygons for State-listed animal species are located in the vicinity of the Project.

Eversource is actively coordinating with the NHESP regarding the species potentially present within these mapped areas of priority habitat and will continue with this consultation in order to minimize or avoid potential adverse effects on rare species during design, construction, and operation of the Project. Species specific surveys were conducted by Oxbow Associates, Inc.

5.0 BEST MANAGEMENT PRACTICES

Throughout the planning and design phases of the Project, wetland impacts have been minimized to the greatest extent possible by using an existing ROW, utilizing existing access roads, and avoiding the placement and construction of structures and access roads in wetlands and watercourses, where practicable. However, given the scale and landscape setting of the Project, certain wetland and watercourse resource impacts associated with the development of the Project cannot be avoided.

Permanent fill will be placed in wetlands in the form of structure foundations. Temporary wetland impacts are anticipated due to the placement of timber construction mats used to facilitate construction activities.

BMPs, as detailed in Eversource's *Construction and Maintenance Environmental Requirements Best Management Practices Manual*: Massachusetts (2022), will be employed to minimize disturbances to wetlands during construction of the Project.

5.1 Structures

Specific measures will be taken when installing structures. Temporary soil erosion controls will be installed around structure work sites in or near wetlands to minimize the potential for soil erosion and sedimentation. All soil erosion and sediment controls and other applicable construction BMPs will be inspected and maintained on a routine basis. Grading in wetlands will be limited for structure foundations. Construction mats will be used in wetlands to provide a safe workspace. Spoil piles will be placed in uplands, where possible, or properly contained on construction mats in wetlands.

5.2 Access Roads

Existing access roads will be used to the extent practicable during the construction phase of the Project to minimize access through wetlands. Where access roads must be improved or possibly developed in certain sections, the roads will be designed, where practical, so as not to interfere with surface water flow or the functions of the wetland. Temporary construction matting for access roads across wetlands will be installed to provide safe passage through the wetlands. The type of stabilization measures to be used in wetlands will depend on soil saturation and depth of organic matter. All temporary access roads through wetlands will be restored following the completion of installation activities by removing the construction mats, re-grading the area (as necessary) to pre-construction elevations to the extent practicable, and revegetating the wetlands.

Mat bridges or other bridging techniques will be used to span streams where necessary. Temporary bridge installation will be avoided during peak flows or when the waterway to be crossed is above bankful width conditions, with the exception of emergency situations or other unforeseen circumstances. If water is present at the time of construction, the ambient water flow will be maintained and water flows will not be constrained or interrupted at any time during construction. In addition, controls will be installed to prevent or minimize turbidity and sediment loading into watercourses. These controls may include the use of crushed stone approach aprons onto mat bridges, stone check dams, water bars, diversion channels, and soil erosion and sediment controls. Existing riparian zone vegetation will also be maintained, to the extent feasible, along the banks of the stream.

5.3 Construction Areas

The size, shape, location, and configuration of work pads were evaluated to minimize impacts to wetlands and watercourses to the extent feasible. Temporary construction matting will be placed on the existing wetland vegetation where wetland impacts could not be avoided.

Temporary construction matting will be removed upon completion of the Project. Wetlands will be restored to pre-construction configuration and elevations to the extent practicable. Vegetation will also be restored within the wetland through native seeding.

5.4 Compensatory Wetland and Flood Storage Mitigation

Compensation for the permanent loss of wetlands and upland BLSF is still in the preliminary planning phase. Consultation will occur with state and federal agencies, as well as with the Town of Acushnet Conservation Commission, the City of New Bedford Conservation Commission, and the Town of Dartmouth Conservation Commission to develop wetland mitigation plans that compensate for unavoidable wetland loss as a result of the Project. Compensatory wetland mitigation options for the Project may include in-situ wetland restoration along the Project Area, wetlands replication/creation (on-or off-ROW), and/or the Massachusetts Department of Fish and Game In-Lieu Fee Program. Eversource will work with the Town of Dartmouth Conservation Commission, the City of New Bedford Conservation Commission, and the Town of Dartmouth Conservation Commission to develop a mitigation plan for the loss of BLSF associated with the installation of new structures.

6.0 PROJECT IMPACTS AND MITIGATION

Throughout the planning and design process for the Project, wetland impacts have been minimized to the extent practicable by utilizing an existing transmission line ROW and existing access roads. However, given the landscape setting of the Project, certain wetland impacts associated with Project construction cannot be avoided. Construction of the Project will result in temporary and permanent impacts to wetland resources. The following section describes the permanent and temporary impacts associated with construction of the Project including temporary work pads to facilitate construction, excavation for and installation of pole foundations/structures for the new overhead transmission line, and the installation of temporary access roads through wetlands. This section also addresses the associated impacts which are most likely to occur to wildlife as a result of the Project and potential mitigation actions which could be implemented.

6.1 Anticipated Temporary Habitat Impacts and Mitigation

Wildlife currently using the Eversource ROW will be temporarily impacted by construction of the Project, but large blocks of intact woodland and shrubland will continue to remain adjacent to the ROW corridor. Larger, more mobile species such as white-tailed deer are expected to temporarily relocate from the construction area but are unlikely to be permanently impacted as a result of construction and operation of the Project. Small mammals such as woodchucks, gray squirrels (*Sciurus carolinensis*), skunks (*Mephitis mephitis*) and raccoons (*Procyon lotor*), as well as herpetofauna are also likely to move away from areas of construction activity. Depending upon the time of year, some avifauna may also be temporarily displaced, possibly impacting breeding and nesting activities, but are otherwise likely to return after construction and in subsequent years. In wetlands which will have temporary work pads or temporary construction access, the disturbed areas will be re-graded to pre-existing conditions and allowed to revegetate.

6.2 Anticipated Permanent Habitat Impacts and Mitigation

Eversource designed the Project to first avoid and then minimize permanent impacts to wetlands to the extent practicable, but unavoidable permanent fill of 870 square feet for structures will be required for the new overhead transmission line. With respect to the surrounding available wetland wildlife habitat resources associated with the transmission line ROWs, it is not expected this permanent fill would result in a long-term negative impact on the ability of the area to provide valuable wildlife habitat for the existing assemblage of wetland-dependent species.

Where excavation occurs for new structures, there are several mitigation activities which can be performed to enhance wildlife habitat. Such activities may include: in-situ wetland restoration, including re-grading to smooth any significant soil rutting or disturbance, seeding disturbed areas with a wetlands or conservation seed mix, and leaving woody debris to create cover for wildlife.

7.0 CONCLUSION

All wetlands within the Eversource Survey Area provide wildlife habitat functions including providing food, shelter, migration, breeding, and overwintering areas for wildlife. Important wildlife habitat characteristics have been identified within the Survey Area. These include:

- Upland/wetland food plants (hard mast and fruit).
- Shrub thickets/streambeds with abundant earthworms.
- Shrub vegetation suitable for veery nesting.
- Standing dead trees (snags) and tree cavities.
- Potential small mammal burrows.
- Dense herbaceous cover.
- Large woody debris on ground.
- Rocks under the water's surface.
- Overhanging shrub branches at, or within one meter above the water's surface.
- Rock piles and crevices suitable as potential habitat.
- Depressions that serve as vernal pools.
- Standing water present at least part of the growing season for use by non-breeding amphibians.
- Standing water present at least part of the growing season suitable for use by turtles and foraging waterfowl.
- Sphagnum hummocks or mats directly adjacent to pools of standing water in spring (four-toed salamander).
- Flat rocks within exposed portions of streambeds.
- Areas of ice-free open water in winter.
- Emergent vegetation at least seasonally flooded during the growing season.
- Perennial and intermittent streams.

Eversource will develop a wetland restoration and mitigation plan for the Project ROW. Possible wildlife habitat enhancements that may be proposed include:

- In-situ restoration and revegetation of wetlands, including re-grading to smooth any significant soil rutting or disturbance, and seeding disturbed areas with a wetlands or conservation seed.
- Stockpiling woody debris to provide cover.

Alterations to wetlands (which include BVW and BLSF) which have impacts above the thresholds permitted under the WPA are only permitted if the impacts will have no adverse impact on wildlife habitat. For this Project, alterations to BVW and BLSF will occur above the thresholds, however, the Project qualifies as a Limited Project pursuant to 310 CMR 10.24(7)(a), and no adverse impacts to wildlife will occur. According to 310 CMR 10.60 (1)(a), "Adverse effects on wildlife habitat mean the alteration of any habitat characteristic listed in 310 CMR 10.60(2), insofar as such alteration will, following two growing seasons of project completion and thereafter (or, if a project would eliminate trees, upon the maturity of replanted saplings) substantially reduce its capacity to provide the important wildlife habitat functions listed in 310 CMR 10.60(2). Such performance standard, however, shall not apply to the habitat of rare species which are covered by the performance standards established under 310 CMR 10.59."

There are no adverse effects on wildlife habitat since resource areas within the Survey Area will not be substantially reduced in their function to serve as valuable sources of wildlife habitat in an area. The majority of the impacts along the Eversource ROW are temporary and include construction matting installation to facilitate construction activities. Once construction is complete, the matting will be removed, and the areas restored resulting in a *de minimis* loss of wildlife habitat associated with the permanent impacts associated with the pole structures.

Eversource has incorporated appropriate measures to avoid and/or minimize and mitigate adverse impacts. The proposed alterations will not substantially reduce the long-term capacity of the site to provide food, cover, migratory, and breeding areas, especially when viewed in terms of landscape scale availability of similar habitat types. Eversource will compensate for all permanent loss of wetland per conformance with the requirements of the state and federal permitting agencies. Eversource will consult with the Town of Acushnet Conservation Commission, the City of New Bedford Conservation Commission, and the Town of Dartmouth Conservation Commission to develop wetland mitigation plans that adequately compensate for wetland loss as a result of the Project. Compensatory wetland mitigation options for the Project may include wetland restoration along the Project Area, wetlands replication/creation (on- or off-ROW), and/or the Massachusetts Department of Fish and Game In-Lieu Fee Program.

8.0 REFERENCES

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ATTACHMENT A WILDLIFE HABITAT EVALUATION DATA FORMS



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
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Acushnet to Fall River Reliability Project	
Project Name	
Acushnet, MA. Bordering Vegetated Wetland D64	
Location	
Please refer to breakdown of impacts below.	11/29/2021
Size of Area Being Impacted	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. Permanent (structure footprint)		48 sf (0.001 acre)		0.001 acre
2.Temporary (work pad)		7,544 sf (0.17 acre)		0.17 acre
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Late

M. Lamothe Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMR 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Acushnet, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D64	
Impact Area (number/name)	
3/20/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 41 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/29/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy date

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:	-	
Class:	Scrub-Shrub	Subclass:	Broad-leaved Deciduous	
Hydrology/Wa	ater Regime			
Permaner	ntly flooded	Saturated		
	ntly exposed	Temporarily	flooded	
Semi-perr	manently flooded		y flooded	
🛛 Seasonal	ly flooded	Artificially flo	ooded	
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)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0		0	20	45
			rise 10% or more of	Woody vines the vegetative of	Mosses cover in eac	Herbaceous h strata; "*" designates
	Strata	Plar	nt Species	Strata		Plant Species
	Shrub	Clet (35	thra alnifolia %)*	Herb		Scirpus cyperinus (35%)*
	Shrub	Vaccin	ium corymbosum (15%)*	Herb		Juncus effusus (15%)*
	Shrub	Lyc	onia ligustrina (5%)	Herb		Juncus sp. (<5%)
	Shrub	Spir	aea tomentosa (<5%)	Herb		Rubus hispidus (<5%)
	Shrub		ododendron cosum (<5%)	Herb		Phragmites australis (<5%)
	Shrub			Herb		
C.	Inventory (Soils)					
	Soil Survey Unit: 3 percent slopes Oi 0"-1"; Oe 1"-9	, extremely st		Very Poorly [Drainage Class 9	Drained	
	Texture (upper part) 0"			Depth		
	Depth to Water Table	Э				
III.	Important Habit	at Features (complete for all res	source areas)		
	If the following hat	oitat characteris	tics are present, descr	ibe & quantify the	m on a sepa	ate sheet & attach.
	Wildlife Food					
	Important Wetlar	nd/Aquatic Fo	od Plants (smartwee	eds, pondweeds	, wild rice, b	ulrush, wild celery)
	Abundant] Present	🛛 Absent		
	Important Upland	d/Wetland Foo	od Plants (hard mas	t and fruit/berry	producers)	
	Abundant	\ge	Present	Absent		
	Shrub thickets of	r streambeds	with abundant earth	worms (America	an woodcocl	<)
			Present	🛛 Absent		
	Shrub and/or he	rbaceous vege	etation suitable for v	eery nesting		
		\geq	Present	Absent		



Wildlife Habitat Protection Guidance

oer (or density)	of Standing D	ead Trees ((potent	ial for cavities	and perches):	
	0			0	0	
dbh	12-18" db	h		18-24" dbh	>2	24" dbh
ber of Tree Ca	vities in trunks	or limbs of:				
diameter (e.g., tree	swallow, saw wh	et owl, screech	n owl, blu	uebird, other songt	virds)	
diameter (e.g., ho	oded merganser,	wood duck, co	mmon g	oldeneye, mink)		
ameter (e.g., hoode	ed merganser, wood	d duck, commor	n goldene	eye, common merga	inser, barred owl, m	ink, raccoon, fisher)
I mammal burr	OWS					
bundant	ПР	resent		Absent		
r/Percnes/Bas	king/Denning/i	vesting Hab	litat			
ense herbace	ous cover (vole	es, small ma	ammal	s, amphibians a	& reptiles)	
arge woody de	bris on the gro	ound (small	mamm	als, mink, amp	hibians & repti	les)
Rocks, crevices	, logs, tree roc	ots or humm	ocks u	nder water's si	urface (turtles,	snakes, frogs)
tock piles, crev	vices, or hollow	logs suitab	le for:			
otter	mink	🗌 porcu	pine	🗌 bear	bobcat	turkey v
		ion overhan	ging w	ater or offering	good visibility	of open water
essions that m	ay serve as se	asonal (ver	nal/aut	umnal) pools		
	🗌 P	resent		🛛 Absent		
ding water pres	sent at least pa	irt of the gro	wing s	eason, suitable	e for use by	
Breeding amphi	ibians		🛛 Noi	n-breeding am	ohibians (forag	ing, re-hydratic
		-		aging waterfov		
	ber of Tree Cav diameter (e.g., tree diameter (e.g., ho ameter (e.g., hoode I mammal burr abundant r/Perches/Bas Dense herbaced arge woody de Rocks, crevices Rocks, crevices Rocks, crevices ater's surface Rock piles, crev di otter ive or dead sta sprey, kingfish essions that ma	ber of Tree Cavities in trunks diameter (e.g., tree swallow, saw who diameter (e.g., hooded merganser, ameter (e.g., hooded merganser, wood I mammal burrows abundant	ber of Tree Cavities in trunks or limbs of: diameter (e.g., tree swallow, saw whet owl, screect diameter (e.g., hooded merganser, wood duck, common ameter (e.g., hooded merganser, wood duck, common bundant	ber of Tree Cavities in trunks or limbs of: diameter (e.g., tree swallow, saw whet owl, screech owl, blued diameter (e.g., hooded merganser, wood duck, common goldene ameter (e.g., hooded merganser, wood duck, common goldene I mammal burrows abundant	ber of Tree Cavities in trunks or limbs of: diameter (e.g., tree swallow, saw whet owl, screech owl, bluebird, other songthe diameter (e.g., hooded merganser, wood duck, common goldeneye, mink) ameter (e.g., hooded merganser, wood duck, common goldeneye, common merga I mammal burrows abundant Present Absent r/Perches/Basking/Denning/Nesting Habitat bense herbaceous cover (voles, small mammals, amphibians & arge woody debris on the ground (small mammals, mink, amp Rocks, crevices, logs, tree roots or hummocks under water's su Rocks, crevices, fallen logs, overhanging branches or hummock vater's surface (turtles, snakes, frogs, wading birds, wood duck Rock piles, crevices, or hollow logs suitable for: otter mink porcupine bear ive or dead standing vegetation overhanging water or offering sprey, kingfisher, flycatchers, cedar waxwings) essions that may serve as seasonal (vernal/autumnal) pools Present Absent ding water present at least part of the growing season, suitable	tbh 12-18" dbh 18-24" dbh > : beer of Tree Cavities in trunks or limbs of:



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

art 2. Field Data F	orm (continued)		
Important habitat charac	teristics (if present, des	cribe and quantify t	hem on a separate sheet)
Medium to large (> 6"), f for spring & two-lined sa		n (cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on basis and nesting			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fine	e silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhanging	g banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (ba	ank swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open w	ater in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-d	rained, sandy soil suitat	ble for turtle nesting	I
	Present	🛛 Absent	
Wildlife dens/nests (if pro	esent, describe & quant	ify them on the bac	k 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 Ev Part 2. Field Data Form (continued)	aluation	
Project area is within:		
100' of beaver, mink or otter den, bank swa	llow 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 & quar	ntify them on a separate sheet)	
Emergent wetland vegetation at least seasonall green heron, black-crowned night heron, king ra		(wood duck,
Flooded > 5 cm	Present	Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least (mallard, American bittern, sora, common snipe		
Flooded > 5 cm	Present	Absent
Flooded > 25 cm (least bittern, common moorhe	en) 🗌 Present	🛛 Absent
Cattail emergent wetland vegetation at least sea	asonally flooded during the growing s	season
Flooded > 5 cm (marsh wren)	Present	Absent
Flooded > 25 cm (least bittern, common moorhe	en) 🗌 Present	🛛 Absent
Fine-leafed emergent vegetation (grasses and s season (common snipe, spotted sandpiper, sed		uring the growing
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	en) 🗌 Present	Absent
/. Landscape Context		
. Habitat Continuity (if present, describe the lan importance for area-sensitive species)	dscape context on a separate sheet	and its
Is the impact area part of an emergent marsh at leas	t 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?	🖂 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

An	pendix 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 (littl	le 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 levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

\square	Disturbance from roads or highways	

Is the site the only	/ resource area in	the vicinity	of an otherwise	developed area
				ucveroped alea

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.

Other human disturbance



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8

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.

Project Name	
Acushnet, MA. Bordering Vegetated Wetland D59-CM and inter	mittent stream SD-59
Location	
Please refer to the breakdown of impacts below.	02/27/2023
Size of Area Being Impacted	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. Temporary (access)	166 sf	218 sf		384 SF
2.				
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to the attached Wildlife Habitat Evaluation for the Project which also includes a photograpic log.

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 callacity to provide important wildlife habitat functions.

me m

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

Meaghan Lamothe Typed or Printed Name Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

August 1992. 491 pages.

	Acushnet, M	Α		
		(from NOI page 1)		
	Bordering Ve	getated Wetland D59-CM		
	Impact Area (nu			
	11/19/2021			
	Date(s) of Site V	/isit(s) and Data Collection		
	Sunny, 45 de			
		ons During Site Visit (if snow cover, include de	pth)	
	M. Lamothe			02/27/2023
	Person completi	ng form per 310 CMR 10.60(1)(b)		Date this form was completed
	mh	ion on this data sheet is based on my	observations unles	ss otherwise indicated
	Signature			
II.	Site Descrip	tion (complete A or B under Classi	fication - see inst	ructions for full description)
				······
A.	Classification	1		
1.	For Wetland	Resource Areas, complete the followi	ng:	
	System:	Palustrine	Subsystem:	
	Class:	Scrub-shrub	Subclass:	Broad-leaved Deciduous
	Hydrology/W	ater Regime		
	Permane	ently flooded	Saturated	
	Intermitte	ently exposed	Temporarily	flooded
	🗌 Semi-per	rmanently flooded		y flooded
	🛛 Seasona	lly flooded	Artificially flo	poded
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) 			
		land Wildlife: Habitat, Natural History, and DA Forest Service, Northeastern Forest E		

Community Name		
Vegetation Description		
g		
Physical Description		
Physical Description		

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	70	0	0	30
			20') Shrubs (< 20')	Woody vines the vegetative	Mosses cover in eact	Herbaceous n strata; "*" designates
	Strata		Plant Species	Strata		Plant Species
	Shrub		Salix discolor (50%)*	Herb		Impatiens capensis (<5%)
	Shrub		Rosa multiflora (10%)			· · · · ·
	Shrub/Sapling		Betula populifolia (<5%)			
	Herb		Solidago sp (20%)*			
	Herb		Grass sp. (10%)*			
C.	Inventory (Soils)					
	Pits, Udorthents	complex	a, gravelly	Not Listed		
	Soil Survey Unit GrFSaL			Drainage Class 12"	;	
	Texture (upper part)			Depth		
	2" Depth to Water Tabl	e				
III.	•		ires (complete for all res	ource areas)		
	If the following hal	bitat chara	acteristics are present, descri	be & quantify the	em on a separ	ate sheet & attach.
	Wildlife Food					
	Important Wetla	nd/Aquat	ic Food Plants (smartwee	ds, pondweeds	s, wild rice, b	ulrush, wild celery)
	Abundant		Present	🛛 Absent		
	Important Uplan	d/Wetlan	d Food Plants (hard mast	and fruit/berry	producers)	
	Abundant		Present	Absent		
	Shrub thickets o	r stream	beds with abundant earthv	vorms (Americ	an woodcock	x)
			Present	Absent		
	Shrub and/or he	rbaceous	s vegetation suitable for ve	ery nesting		
			Present	Absent		

rt 2. Field D	ata Form (co	ontinued)			
Number of trees	(live or dead) > 3	0" DBH:	0		
			tantial for asvition	and norchos);	
0	ity) of Standing D	eau mees (pu		s and perches).	
6-12" dbh	0 12-18" db	h	0 18-24" dbh	> 24	4" dbh
Number of Tree	Cavities in trunks	or limbs of:			
0					
	tree swallow, saw whe	et owl, screech ow	l, bluebird, other son	gbirds)	
0 12-18" diameter (e.g.	, hooded merganser,	wood duck, comm	on goldeneye, mink)		
0	ooded merganser, wood			wanaan barrad aud wai	nk roccor fisher)
		a duck, common go	ideneye, common mer	ganser, barred owi, mi	nk, raccoon, lisher)
Small mammal b	urrows				
Abundant	PI	resent	🛛 Absent		
Cover/Perches/B	asking/Denning/N	Nesting Habitat	:		
🛛 Dense herba	ceous cover (vole	es, small mamr	mals, amphibians	s & reptiles)	
Large woody	debris on the gro	ound (small ma	mmals, mink, an	nphibians & reptil	es)
Rocks, crevie	ces, logs, tree roo	ts or hummocl	s under water's	surface (turtles, s	snakes, frogs)
	ces, fallen logs, ov ce (turtles, snake				
Rock piles, c	revices, or hollow	logs suitable f	or:		
otter	mink	porcupine	e 🗌 bear	bobcat	turkey vult
	standing vegetati isher, flycatchers			ng good visibility o	of open water (e.
Depressions that	may serve as se	asonal (vernal	autumnal) pools		
	Pi	resent	Absent		
Standing water p	resent at least pa	rt of the growir	ng season, suitat	ble for use by	
Breeding am	phibians	\boxtimes	Non-breeding ar	nphibians (foragi	ng, re-hydration)
Turtles			Foraging waterfo	owl	
Sphagnum humr	nucks or mats, mo	oss-covered lo	•••		or directly adiad

Present Absent

rt 2. Field Data l	Wildlife Habitat Eve Form (continued)	aluation	
Important habitat chara	<u>cteristics (if present, des</u>	cribe and quantify	them on a separate sheet)
Medium to large (> 6"), for spring & two-lined s		n (cover for stream	salamanders and nesting habita
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky salar		beds (cover for stream
	Present	🛛 Absent	
Underwater banks of fir	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	ank 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 suitat	ble for turtle nesting	g
	Present	🛛 Absent	
<u>Wildlife dens/nests (if p</u>	resent, describe & quant	ify them on the bac	ck 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

Bureau of Resource Protection - Wetlands Program

	Vildlife Habitat Protect		ce	
	art 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 flo green heron, black-crowned night heron, king rail, V		n (wood duck,	
	Flooded > 5 cm	Present	🛛 Absent	
	Flooded > 25 cm (pied-billed grebe)	Present	Absent	
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, rec			
	Flooded > 5 cm	Present	Absent	
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent	
	Cattail emergent wetland vegetation at least season	ally 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 sedg season (common snipe, spotted sandpiper, sedge v		during the growing	
	Flooded > 5 cm	Present	🛛 Absent	
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent	
IV.	Landscape Context			
Α.	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?	🛛 No	
	(marsh and waterbirds)	2.0 acres in size? Yes	🛛 No	
		5.0 acres in size?	🛛 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.

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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		

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

- 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 levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

	Disturbance	from ro	ads or	highway	'S
--	-------------	---------	--------	---------	----

🛛 Other human disturbance

25.0 acres in size? Yes

No No

	Is the site the only	resource area in t	he vicinity of an	otherwise deve	loped 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8

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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.

Acishnet to Fall River Reliability Project Project Name	
Acushnet, MA. Bordering Vegetated Wetland D58-CM	
Location	
Please refer to the breakdown of impacts below.	11/29/2021
Size of Area Being Impacted	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. Temporary (work pads, access)		2,839 sf (0.07 sf)		0.07 sf
2.				
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary) Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.



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.

mha Late

M. Lamothe

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

Typed or Printed Name

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Acushnet,	MA ion (from NOI page 1)				
•	Bordering Vegetated Wetland D58, "D58-CM"				
	(number/name)				
1/25/2019	hambol/hamb)				
	e Visit(s) and Data Collection				
. ,	degrees F, light wind				
	Weather Conditions During Site Visit (if snow cover, include depth)				
M. Lamoth	е		11/29/2021		
Person comp	leting form per 310 CMR 10.60(1)(b)		Date this form was completed		
Signature	ation on this data sheet is based or Safe		ess otherwise indicated		
mha و Signature					
mha و Signature	દુર્તત				
Signature Site Descu Classificati	દુર્તત	assification - see ins			
Signature Site Descu Classificati	£ுர்ம ription (complete A or B under Cl ion	assification - see ins			
Signature Site Descr Classificati For Wetlar	દાર્નમ ription (complete A or B under Cl ion nd Resource Areas, complete the fo	assification - see ins			

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)
 - "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.

Community Name		
Vegetation Description		
Physical Description		

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Wildlife Habitat Protection Guidance

Ar	ppen	dix	B:	Detailed	Wildlife	Habitat	Evaluation
" 'r	· • • •	MIX.	—	Dotanoa		Indontat	Liadation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

o	% Cover:	0	<u><5</u> (0') Shrubs (< 20')	10	0	90
F			omprise 10% or more of	Woody vines the vegetative c	Mosses over in eact	Herbaceous n strata; "*" designates
S	Strata Shrub		Plant Species	Strata		Plant Species
5			Acer rubrum (<5%)			
ŀ	Herb		Phragmites australis(65%)*			
ŀ	Herb		Salidago spp. (20%)*			
ŀ	Herb		Carex spp. (<5%)			
V	Woody VIne		Vitus labrusca (10%)*			
C. I	nventory (Soils)					
	Freetown Muck, 0 to 1 percent slopes Soil Survey Unit Organic hemic (0"-8"), Mucky SiL (8"-16") Texture (upper part) 2"				rained	
			ıcky SiL (8"-16")	Drainage Class 16"		
Т 2				Depth		
C	Depth to Water Table	;				
III. I	mportant Habita	at Featu	res (complete for all res	source areas)		
li	f the following hab	itat charad	cteristics are present, descr	ibe & quantify ther	m on a separ	ate sheet & attach.
V						
l	Wildlife Food					
Г		ıd/Aquati	c Food Plants (smartwee	eds, pondweeds,	wild rice, b	ulrush, wild celery)
L		nd/Aquati	c Food Plants (smartwee	eds, pondweeds,	wild rice, b	ulrush, wild celery)
l	mportant Wetlan	·	_	Absent		ulrush, wild celery)
	mportant Wetlan	·	Present	Absent		ulrush, wild celery)
C	mportant Wetlan Abundant mportant Upland Abundant	d/Wetland	Present	Absent Absent And fruit/berry p	producers)	
C	mportant Wetlan Abundant mportant Upland Abundant	d/Wetland	 Present Food Plants (hard mast Present 	Absent Absent And fruit/berry p	producers)	
[s	mportant Wetlan Abundant mportant Upland Abundant Shrub thickets or	d/Wetland	 Present Food Plants (hard mast Present Present 	Absent t and fruit/berry p Absent worms (America Absent	producers)	

rt 2. Field D	ata Form (cont	inued)			
Number of trees	(live or dead) > 30" [OBH:	0		
Number (or dens	ity) of Standing Dead	d Trees (noter	tial for cavitie	s and nerches).	
	., .			• •	
6-12" dbh	12-18" dbh		0 18-24" dbh	>	24" dbh
Number of Tree (Cavities in trunks or I	imbs of:			
0					
	tree swallow, saw whet ov	wl, screech owl, b	luebird, other son	gbirds)	
0 12-18" diameter (e.g.	, hooded merganser, woo	d duck, common	goldeneye, mink)		
0	oded merganser, wood duo	ak common goldo		appear barrad owl r	nink raaaan fishar)
		ck, common golder	leye, common mei	ganser, barred owi, n	nink, faccoon, fisher)
Small mammal b	urrows				
Abundant	Prese	ent	🛛 Absent		
Cover/Perches/B	asking/Denning/Nes	ting Habitat			
🛛 Dense herba	ceous cover (voles,	small mamma	ls, amphibians	s & reptiles)	
Large woody	debris on the groun	d (small mam	mals, mink, an	nphibians & rept	iles)
Rocks, crevid	ces, logs, tree roots o	or hummocks	under water's	surface (turtles,	snakes, frogs)
	ces, fallen logs, overl ce (turtles, snakes, f				
Rock piles, c	revices, or hollow log	gs suitable for	•		
otter	🗌 mink [porcupine	bear	bobcat	turkey vult
	standing vegetation isher, flycatchers, ce			ng good visibility	of open water (e
Depressions that	may serve as seaso	onal (vernal/au	itumnal) pools		
	2	,			
•		t			
	Prese	ent	🛛 Absent		
·	Preser at least part o			ble for use by	
·	resent at least part o	of the growing	season, suital		ging, re-hydration)
Standing water p	resent at least part o	of the growing	season, suital	nphibians (forag	ging, re-hydration)

Present Absent

	bitat Prot Wildlife Habitat Ev		Guidance
	· · · · · ·	cribe and quantify	them on a separate sheet)
	flat rocks within a stream		salamanders and nesting habita
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky sala		beds (cover for stream
	Present	🛛 Absent	
Underwater banks of fir	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	oank 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 suital	ole for turtle nesting	9
	Present	🛛 Absent	
Wildlife dens/nests (if p	resent, describe & quant	ify them on the bac	ck 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

Bureau of Resource Protection - Wetlands Program

	Vildlife Habitat Protection Protection B: Detailed Wildlife Habitat Evalu		ce		
	art 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 flo green heron, black-crowned night heron, king rail, V		n (wood duck,		
	Flooded > 5 cm	Present	🛛 Absent		
	Flooded > 25 cm (pied-billed grebe)	Present	Absent		
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, rec				
	Flooded > 5 cm	⊠ Present	Absent		
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent		
	Cattail emergent wetland vegetation at least season	ally 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 sedg season (common snipe, spotted sandpiper, sedge v		during the growing		
	Flooded > 5 cm	Present	Absent		
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent		
IV.	Landscape Context				
A.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its		
	Is the impact area part of an emergent marsh at least	1.0 acre in size? Ves	🛛 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

App	endix	B:	Detailed	Wildlife	Habitat	Evaluation
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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	f contiguous forested	l 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 a	ljacent 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- 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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Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev.

Acushnet to Fall River Reliability Project	
Project Name	
Acushnet, MA. Bordering Vegetated Wetland D56-CM 14	
Location	
Please refer to breakdown of impacts below.	12/08/2021
Size of Area Being Impacted	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. Temporary (work pad)		2,161 sf (0.05		0.05 acre
		acre)		
2.				
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Acushnet, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D56-CM 14	
Impact Area (number/name)	
8/17/2021	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 80 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/08/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy date

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:	<u>-</u>
Class:	Emergent	Subclass:	Persistent
Hydrology/W	ater Regime		
Permane	ntly flooded	Saturated	
	ently exposed	Temporarily	flooded
Semi-per	manently flooded		/ flooded
Seasona	lly flooded	Artificially flo	oded
	t or Bordering Land Subject to Flooding restrial classification system such as or		· · ·

- 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)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

Annondiv	R٠	Dotailad	Wildlife	Habitat	Evaluation
Appendix	D:	Detalled	whame	Παριτατ	Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	<5	0	0	95
		Trees (> 20')	Shrubs (< 20')	Woody vines	Mosses	Herbaceous
	Plant Lists (spece a dominant plan			the vegetative c	over in each st	rata; "*" designates
	Strata	Plar	t Species	Strata	Р	lant Species
	Shrub	Spiraea	tomentosa (<5%)	Herb	lunc	us effusus (5%)
	Herb	Solida	go rugosa (30%)*			
	Herb	Thelyp (20%	teris palustris %)*			
	Herb	Onoclea	a sensibilis (20%)*			
	Herb	Eutroch (15%)	ium maculatum			
C.	Inventory (Soils))				
	Soil Survey Unit percent slopes 0"-13" FSaL Texture (upper p No water table o Depth to Water Tab	bart)	ny sand, 8 to 15	Excessively E Drainage Class 13" Depth	Drained	
III.	Important Habi	tat Features (complete for all res	source areas)		
	If the following ha	bitat characterist	ics are present, descr	ibe & quantify the	m on a separate	sheet & attach.
	Wildlife Food					
	Important Wetla	nd/Aquatic Foo	od Plants (smartwee	eds, pondweeds,	wild rice, bulru	ush, wild celery)
	Abundant		Present	🛛 Absent		
	Important Uplan	d/Wetland Foo	d Plants (hard mast	and fruit/berry p	producers)	
	Abundant		Present	🛛 Absent		
	Shrub thickets c	or streambeds v	with abundant earth	worms (America	n woodcock)	
			Present	🛛 Absent		
	Shrub and/or he	erbaceous vege	etation suitable for v	eery nesting		
			Present	🛛 Absent		



Wildlife Habitat Protection Guidance

	rees (live or dead) >	30" DBH:	0		
Number (or	density) of Standing	Dead Trees (po	tential for cavities	and perches):	
0	0		0 18-24" dbh	0	
6-12" dbh		dbh	18-24" dbh	> 24	4" dbh
Number of ⁻	Free Cavities in trun	ks or limbs of:			
0					
6-12" diameter	(e.g., tree swallow, saw	whet owl, screech ow	I, bluebird, other songb	oirds)	
12-18" diamete	er (e.g., hooded merganse	er, wood duck, comm	on goldeneye, mink)		
0 >18" diameter (r	e.g., hooded merganser, w	ood duck, common go	ldeneye, common merga	inser, barred owl, mir	nk, raccoon, fisher
	mal burrows		<i>, , , , , , , , , ,</i>	, ,	
_					
Abunda	nt 🗌	Present	🛛 Absent		
Cover/Percl	nes/Basking/Denning	g/Nesting Habitat	t		
🛛 Dense I	nerbaceous cover (v	oles, small mamı	mals, amphibians &	& reptiles)	
Large w	roody debris on the g	ground (small ma	immals, mink, amp	hibians & reptile	es)
Rocks,	crevices, logs, tree r	oots or hummocl	ks under water's su	urface (turtles, s	nakes, frogs)
	crevices, fallen logs, surface (turtles, sna				
🗌 Rock pi	les, crevices, or holle	ow logs suitable f	for:		
otter	mink	porcupine	e 🗌 bear	bobcat	🗌 turkey v
	dead standing veget kingfisher, flycatche	•	S S	good visibility o	of open water
Depression	s that may serve as	seasonal (vernal	/autumnal) pools		
		Present	🛛 Absent		
Standing wa	ater present at least	part of the growir	ng season, suitable	e for use by	
	a amphibiana	_	Non brooding am	ohibians (foragir	na. re-hvdratio
Breedin	g amphibians		Non-breeding amp		.g, .e, a.a



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

art 2. Field Data F	· · · ·	cribe and quantify t	hem on a separate sheet)
	at rocks within a stream		salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on ba salamanders and nesting			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fine	e silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhanging	banks (small mammals	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (ba	nk swallow, kingfisher)		
	Present	Absent	
Areas of ice-free open w	ater in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-dr	rained, sandy soil suitat	ble for turtle nesting	
	Present	Absent	
Wildlife dens/nests (if pre	esent, describe & quant	ify them on the bac	k 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

ppendix B: Detailed Wildlife Habitat Ev	aluation	
Part 2. Field Data Form (continued)		
Project area is within:		
100' of beaver, mink or otter den, bank swal	llow 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 & quan	ntify them on a separate sheet)	
Emergent wetland vegetation at least seasonally green heron, black-crowned night heron, king ra		(wood duck,
Flooded > 5 cm	Present	Absent
Flooded > 25 cm (pied-billed grebe)	Present	Absent
Persistent emergent wetland vegetation at least (mallard, American bittern, sora, common snipe		
Flooded > 5 cm	Present	Absent
Flooded > 25 cm (least bittern, common moorhe	en) Present	🛛 Absent
Cattail emergent wetland vegetation at least sea	asonally flooded during the growing	season
Flooded > 5 cm (marsh wren)	Present	Absent
Flooded > 25 cm (least bittern, common moorhe	en)	Absent
Fine-leafed emergent vegetation (grasses and s season (common snipe, spotted sandpiper, sede		luring the growing
Flooded > 5 cm	Present	Absent
Flooded > 25 cm (least bittern, common moorhe	en) Present	Absent
7. Landscape Context		
 Habitat Continuity (if present, describe the land importance for area-sensitive species) 	dscape context on a separate sheet	and its
Is the impact area part of an emergent marsh at least	1.0 acre in size? Ves	🖂 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

Δ.	nnendix	в∙ г	Detailed	Wildlife	Habitat	Evaluation
	ppendix	р. г	Jelaneu	WIIUIIIE	Παρπαι	

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	f 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8

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.

-	
Acushnet to Fall River Reliabiity Project	
Project Name	
Acushnet, MA. Bordering Vegetated Wetland D55	
Please refer to breakdown of impacts below.	11/30/2021
Size of Area Being Impacted	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. Permanent (Structure		138 sf (0.003		0.003 acre
Footprint) 2. Temporary (work pad and		acre) 11,431 sf		0.26 acre
access)		(0.26 acre)		
3.				. <u> </u>
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mha Late

M. Lamothe

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

Typed or Printed Name

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Acushnet,	MA		
Project Loca	tion (from NOI page 1)		
Bordering	Vegetated Wetland D55		
Impact Area	(number/name)		
1/25/2019			
Date(s) of Si	te Visit(s) and Data Collection		
Cloudy, 33	3 degrees F, light wind		
Weather Cor	nditions During Site Visit (if snow cove	r, include depth)	
M. Lamoth			11/30/2021
Person comp	bleting form per 310 CMR 10.60(1)(b)		Date this form was completed
Signature	rintion (complete A or B und	ler Classification - see inst	ructions for full description)
A. Classificat			
1. For Wetla	nd Resource Areas, complete	the following:	
System:	Palustrine	Subsystem:	
Class:	Emergent	Subclass:	Persistent
Hydrology	/Water Regime		
🗌 Perma	anently flooded	Saturated	
Interm	ittently exposed	Temporarily	/ flooded

Semi-permanently 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)
 - "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.

Community Name		
Vegetation Description		
Physical Description		

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	5	<5	0	90
			comprise 10% or more of	Woody vines the vegetative	Mosses e cover in eacl	Herbaceous n strata; "*" designates
	Strata		Plant Species	Strata		Plant Species
	Shrub		Lyonia ligustrina (5%)*	Herb		Juncus effusus (<5%)
	Shrub		Vaccinium	Shrub		Spiraea alba (<5%)
	Shurb		corymbosum (<5%) Clethra alnifolia (<5%)			
	Herb		Phragmites australis (90%)*			
	Herb		Onoclea sensibilis(5%)			
	Herb		Solidago spp. (<5%)			
C.	Inventory (Soils)					
	Freetown Muck,	0 to 1 pe	rcent slopes	Very poorly		
	Soil Survey Unit FSaL w/ gravels (0"-4") Texture (upper part)			Drainage Clas 4"	SS	
				4" Depth		
	4"					
	Depth to Water Tabl	e				
III.	Important Habit	tat Featu	res (complete for all res	source areas))	
	If the following hat	oitat chara	cteristics are present, descr	ibe & quantify tl	hem on a separ	ate sheet & attach.
	Wildlife Food					
	Important Wetla	nd/Aquati	c Food Plants (smartwee	eds, pondweed	ds, wild rice, b	ulrush, wild celery)
	Abundant		Present	🛛 Absent		
	Important Uplan	d/Wetland	d Food Plants (hard mast	and fruit/berr	y producers)	
	Abundant		Present	Absent		
	Shrub thickets o	r streamb	eds with abundant earth	worms (Ameri	can woodcocł	x)
			Present	🛛 Absent		
	Shrub and/or he	rbaceous	vegetation suitable for v	eery nesting		
			Present	🛛 Absent		

rt 2. Field D	ata Form (cont	inued)			
Number of trees	(live or dead) > 30" [OBH:	0		
Number (or dens	ity) of Standing Dead	d Trees (noter	tial for cavitie	s and nerches).	
	., .			• •	
6-12" dbh	12-18" dbh		0 18-24" dbh	>	24" dbh
Number of Tree (Cavities in trunks or I	imbs of:			
0					
	tree swallow, saw whet ov	wl, screech owl, b	luebird, other son	gbirds)	
0 12-18" diameter (e.g.	, hooded merganser, woo	d duck, common	goldeneye, mink)		
0	oded merganser, wood duo	ak common goldo		appear barrad owl r	nink raaaan fishar)
		ck, common golder	leye, common mei	ganser, barred owi, n	nink, faccoon, fisher)
Small mammal b	urrows				
Abundant	Prese	ent	🛛 Absent		
Cover/Perches/B	asking/Denning/Nes	ting Habitat			
🛛 Dense herba	ceous cover (voles,	small mamma	ls, amphibians	s & reptiles)	
Large woody	debris on the groun	d (small mam	mals, mink, an	nphibians & rept	iles)
Rocks, crevid	ces, logs, tree roots o	or hummocks	under water's	surface (turtles,	snakes, frogs)
	ces, fallen logs, overl ce (turtles, snakes, f				
Rock piles, c	revices, or hollow log	gs suitable for	•		
otter	🗌 mink [porcupine	bear	bobcat	turkey vult
	standing vegetation isher, flycatchers, ce			ng good visibility	of open water (e
Depressions that	may serve as seaso	onal (vernal/au	itumnal) pools		
	2	,			
•		t			
	Prese	ent	🛛 Absent		
·	Preser at least part o			ble for use by	
·	resent at least part o	of the growing	season, suital		ging, re-hydration)
Standing water p	resent at least part o	of the growing	season, suital	nphibians (forag	ging, re-hydration)

Present Absent

pendix B: Detailed	bitat Prot Wildlife Habitat Ev		Guidance
art 2. Field Data	· · · · · · · · · · · · · · · · · · ·	cribe and quantify	them on a separate sheet)
	flat rocks within a stream		salamanders and nesting habita
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky sala		oeds (cover for stream
	Present	🛛 Absent	
Underwater banks of fin	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	oank 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 suital	ole for turtle nesting	g
	Present	Absent	
Wildlife dens/nests (if p	present, describe & quant	ify them on the bac	ck 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

Bureau of Resource Protection - Wetlands Program

	Vildlife Habitat Protection Protection B: Detailed Wildlife Habitat Evalu		ce					
Pa	art 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 flo green heron, black-crowned night heron, king rail, V		n (wood duck,					
	Flooded > 5 cm	Present	🛛 Absent					
	Flooded > 25 cm (pied-billed grebe)	Present	Absent					
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, rec							
	Flooded > 5 cm	Present	🛛 Absent					
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent					
	Cattail emergent wetland vegetation at least season	ally 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 sedg season (common snipe, spotted sandpiper, sedge v		during the growing					
	Flooded > 5 cm	Present	🛛 Absent					
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent					
IV.	Landscape Context							
A.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its					
	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?	🛛 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

A	open	dix	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	f contiguous forested	I 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	t 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 levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

Disturbance from roads or h	nighways
-----------------------------	----------

Other human disturbance

	Is the site the only	resource area i	n the vicinity of an	otherwise dev	eloped 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8

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.

Project Name	
Acushnet, MA. Bordering Vegetated Wetland D54-Pull Pad	
Location	
Please see breakdown of impacts below.	11/30/2021
Size of Area Being Impacted	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. Temporary (pull pad)		4,990 sf		0.11 acre
2.		(0.11 acre)		
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Sate

M. Lamothe

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

Typed or Printed Name

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

	Acushi	net, MA		
		ocation (from NOI page 1)		
	Border	ing Vegetated Wetland D54-Pull Pad		
	Impact A	rea (number/name)		
	1/29/20			
	Date(s)	of Site Visit(s) and Data Collection		
		, 33 degrees F, light wind		
		Conditions During Site Visit (if snow cover, in	clude depth)	
	M. Lan			11/30/2021
	Person of	ompleting form per 310 CMR 10.60(1)(b)		Date this form was completed
	The inf	ormation on this data sheet is based	on my observations unles	ss otherwise indicated
		mha Late		
	Signatur			
П.	Site D	escription (complete A or B under	Classification - see inst	ructions for full description)
•••	One D			
Α.	Classif	ication		
1.	For We	tland Resource Areas, complete the	following:	
	System: Palustrine		Subsystem:	-
	- , - · -		,	Persistent
	Class:	Emergent	Subclass:	r ersisterit
	Hydrol	ogy/Water Regime		
	,			
	🗌 Pe	rmanently flooded	Saturated	
	🗌 Int	ermittently exposed	Temporarily	flooded
	🗌 Se	mi-permanently flooded		y flooded
	🗌 Se	asonally flooded	Artificially flo	ooded
r		erfront or Bordering Land Subject to	Elooding Posourco Aroo	complete the following
2.		e a terrestrial classification system si		
		assification of the Natural Communities of		
		arsley, MA DFW NHESP, Westborough,		
	Ru	ew England Wildlife: Habitat, Natural Hist dis, USDA Forest Service, Northeastern gust 1992. 491 pages.		

Community Name	
Vegetation Description	
Physical Description	

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	<u>5</u> 20') Shrubs (< 20')	<5	<5	95	
			comprise 10% or more of t	Woody vines the vegetative of	cover in each	Herbaceous n strata; "*" designates	
	Strata		Plant Species	Strata		Plant Species	
	Shrub		Spiraea alba (5%)*	Herb		Onoclea sensibilis (65%)*	
	Shrub		Spiraea tomentosa (<5%)	Herb		Solidago spp. (25%)*	
	Shrub		Frangula alnus (<5%)	Herb		Juncus effusus (20%)	
	Shrub		Viburnum dentatum (<5%)				
C.	extremely stony Ground Frozen Texture (upper part) 0"	ndy loam	n, 0 to 3 percent slopes,	Very poorly o Drainage Class - Depth	drained		
	Depth to Water Tabl	е					
III.	Important Habi	tat Featu	ires (complete for all res	ource areas)			
	If the following hal	bitat chara	acteristics are present, descri	be & quantify the	m on a separ	ate sheet & attach.	
	Wildlife Food						
	Important Wetla	nd/Aquat	ic Food Plants (smartwee	ds, pondweeds	, wild rice, b	ulrush, wild celery)	
	Abundant		Present	🛛 Absent			
	Important Upland/Wetland Food Plants (hard mast and fruit/berry producers)						
	Abundant		Present	Absent			
	Shrub thickets o	r streaml	peds with abundant earthy	vorms (America	an woodcock	x)	
			Present	Absent			
	Shrub and/or he	rbaceous	s vegetation suitable for ve	ery nesting			
			Present	🛛 Absent			

rt 2. Field D	ata Form (c	ontinued)			
Number of trees	(live or dead) > 3	30" DBH:	0		
	. ,		stantial for asvitio	a and narahas);	
Number (or dens 0		Jead Trees (po		s and perches).	
6-12" dbh	12-18" dl	bh	0 18-24" dbh	> 24	4" dbh
Number of Tree (Cavities in trunks	or limbs of:			
0					
6-12" diameter (e.g., t 0	tree swallow, saw wh	net owl, screech o	wl, bluebird, other sor	igbirds)	
12-18" diameter (e.g.	, hooded merganser,	, wood duck, comr	non goldeneye, mink)	1	
0 >18" diameter (e.g., ho	oded merganser, woo	d duck. common a	oldeneve. common me	rganser, barred owl, mir	nk. raccoon. fisher)
Small mammal b	-	J,		,	,,
Abundant		Present	🛛 Absent		
Cover/Perches/B	asking/Denning/		11		
🛛 Dense herba	ceous cover (vol	es, small marr	imals, amphibian	s & reptiles)	
Large woody	debris on the gr	ound (small m	ammals, mink, ar	nphibians & reptil	es)
Rocks, crevic	ces, logs, tree roo	ots or hummoo	ks under water's	surface (turtles, s	nakes, frogs)
				ocks at, or within ick, mink, raccoor	
🛛 Rock piles, c	revices, or hollow	v logs suitable	for:		
otter	mink	D porcupir	ne 🗌 bear	bobcat	turkey vult
	standing vegetat isher, flycatchers			ng good visibility c	of open water (e
Depressions that	may serve as se	easonal (verna	l/autumnal) pools	i	
		Present	Absent		
Standing water p	resent at least pa	art of the grow	ing season, suita	ble for use by	
Breeding am	phibians	\boxtimes	Non-breeding a	mphibians (foragir	ng, re-hydration)
Turtles			Foraging waterf	owl	

Present Absent

	bitat Prot Wildlife Habitat Ev		Guidance
	· · · · · ·	cribe and quantify	them on a separate sheet)
	flat rocks within a stream		salamanders and nesting habita
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky sala		beds (cover for stream
	Present	🛛 Absent	
Underwater banks of fir	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	oank 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 suital	ole for turtle nesting	9
	Present	🛛 Absent	
Wildlife dens/nests (if p	resent, describe & quant	ify them on the bac	ck 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

Bureau of Resource Protection - Wetlands Program

	Vildlife Habitat Protect pendix B: Detailed Wildlife Habitat Evalu		ce		
Pa	art 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 flo green heron, black-crowned night heron, king rail, V	oded during the growing seasor	n (wood duck,		
	Flooded > 5 cm	Present	🛛 Absent		
	Flooded > 25 cm (pied-billed grebe)	Present	Absent		
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, rec	, , , , , , , , , , , , , , , , , , , ,	0		
	Flooded > 5 cm	Present	🛛 Absent		
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent		
	Cattail emergent wetland vegetation at least seasor	ally 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 sedg season (common snipe, spotted sandpiper, sedge v		during the growing		
	Flooded > 5 cm	Present	Absent		
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent		
IV.	Landscape Context				
A.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its		
	Is the impact area part of an emergent marsh at least	1.0 acre in size?	🛛 No		
	(marsh and waterbirds)	2.0 acres in size?	🛛 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

App	endix	B:	Detailed	Wildlife	Habitat	Evaluation
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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	f contiguous forested	l 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	y 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8

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.

Acushnet to Fall River Reliability Project	
Project Name	
Acushnet, MA. Bordering Vegetated Wetland D54-CM 19	
Location	
Please refer to breakdown of impacts below.	11/30/2021
Size of Area Being Impacted	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. Permanent (structure	·	5.9 sf (0.0001		0.0001 acre
footprint) 2. Termporary (work pad)		acre) 3,719 sf (0.09 acre)		0.09 acre
3.		(0.00 0.00)		
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographiclog.

Certification

detlhab.doc • 10/07

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))

7

M. Lamothe Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

	Acushnet, MA			
	Project Location (
	•	getated Wetland D54, "D54-CM-19"		
	Impact Area (num			
	1/29/2019			
		sit(s) and Data Collection		
	Cloudy, 33 de	grees F, light wind		
	Weather Conditio	ns During Site Visit (if snow cover, include dep	th)	
	M. Lamothe			11/30/2021
	Person completin	g form per 310 CMR 10.60(1)(b)		Date this form was completed
	The information	on on this data sheet is based on my o	observations unles	s otherwise indicated
	<u></u>	mha Lake		
	Signature			
II.	Site Descript	ion (complete A or B under Classifi	ication - see instr	uctions for full description)
A.	Classification			
1.	For Wetland R	Resource Areas, complete the followin	ıg:	
	System:	Palustrine	Subsystem:	<u>-</u>
	Class:	Scrub Shrub/Emergent	Subclass:	Broad-leaved Deciduous/Emergent
	Hydrology/Wa	ter Regime		
	Permaner	ntly flooded	Saturated	
	Intermitter	ntly exposed	Temporarily	flooded
	Semi-perr	nanently flooded		/ flooded
	Seasonall	y flooded	Artificially flo	oded
2.		or Bordering Land Subject to Floodin estrial classification system such as o		
	a. "Classificat	ion of the Natural Communities of Massac IA DFW NHESP, Westborough, MA. July	chusetts (Draft)" by F	Patricia C. Swain and Jennifer B.
	Rudis, USE	and Wildlife: Habitat, Natural History, and DA Forest Service, Northeastern Forest Ex 02. 491 pages.	Distribution" by Rich periment Station. G	ard M. DeGraaf and Deborah D. General Technical Report NE-108.

Community Name		
Vegetation Description		
Physical Description		

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	55	<5	<5	45	
			omprise 10% or more of	Woody vines of the vegetative of	Mosses over in eac	Herbaceous h strata; "*" designates	
	Strata		Plant Species	Strata		Plant Species	
	Shrub		Lyonia ligustrina (35%)*	Herb		Onoclea sensibilis (20%)*	
	Shrub		Spiraea tomentosa (10%)	Herb		Juncus effusus (20%)*	
	Shrub		Salix spp. (5%)	Herb		Solidago spp. (10%)	
	Shrub		Spiraea alba (<5%)	Herb		Carex spp. (5%)	
	Shrub		Pinus strobus (<5%)	Herb		Dichanthelium clandestinum (10%)	
	Shrub		Rubus hispidus (5%)	Woody Vine		Smilax roduntifolia (<5%)	
C.	Inventory (Soils)						
	Gloucester - Hinckley complex, undulating, very			Somewhat excessively drained			
	stony Ground Frozen		Drainage Class				
	Texture (upper part)			 Depth			
	0", surface wate	r in some	snots	Dopui			
	Depth to Water Table		opoto	-			
III.	Important Habit	at Featu	es (complete for all r	esource areas)			
	If the following hab	itat charac	teristics are present, des	cribe & quantify the	m on a separ	rate sheet & attach.	
	Wildlife Food						
	Important Wetlar	nd/Aquatio	c Food Plants (smartwe	eeds, pondweeds	, wild rice, b	ulrush, wild celery)	
	Abundant		Present	🛛 Absent			
	Important Upland	d/Wetland	l Food Plants (hard ma	st and fruit/berry	producers)		
	Abundant		☑ Present	Absent			
	Shrub thickets or	r streamb	eds with abundant eart	thworms (America	In woodcocł	<)	
			Present	🛛 Absent			
	Shrub and/or her	baceous	vegetation suitable for	veery nesting			

Present

Absent

rt 2. Field D	ata Form (c	ontinued)			
Number of trees	(live or dead) > 3	30" DBH:	0		
	. ,		stantial for asvitio	a and narahas);	
Number (or dens 0		Jead Trees (po		s and perches).	
6-12" dbh	12-18" dl	bh	0 18-24" dbh	> 24	4" dbh
Number of Tree (Cavities in trunks	or limbs of:			
0					
6-12" diameter (e.g., t 0	tree swallow, saw wh	net owl, screech or	wl, bluebird, other sor	igbirds)	
12-18" diameter (e.g.	, hooded merganser,	, wood duck, comr	non goldeneye, mink)	1	
0 >18" diameter (e.g., ho	oded merganser, woo	d duck. common a	oldeneve. common me	rganser, barred owl, mir	nk. raccoon. fisher)
Small mammal b	-	J,		,	,,
Abundant		Present	🛛 Absent		
Cover/Perches/B	asking/Denning/		11		
🛛 Dense herba	ceous cover (vol	es, small marr	imals, amphibian	s & reptiles)	
Large woody	debris on the gr	ound (small m	ammals, mink, ar	nphibians & reptil	es)
Rocks, crevic	ces, logs, tree roo	ots or hummoo	ks under water's	surface (turtles, s	nakes, frogs)
				ocks at, or within ick, mink, raccoor	
🛛 Rock piles, c	revices, or hollow	v logs suitable	for:		
otter	mink	D porcupir	ne 🗌 bear	bobcat	turkey vult
	standing vegetat isher, flycatchers			ng good visibility c	of open water (e
Depressions that	may serve as se	easonal (verna	l/autumnal) pools	i	
		Present	Absent		
Standing water p	resent at least pa	art of the grow	ing season, suita	ble for use by	
Breeding am	phibians	\boxtimes	Non-breeding a	mphibians (foragir	ng, re-hydration)
Turtles			Foraging waterf	owl	

Present Absent

	bitat Prot Wildlife Habitat Ev		Guidance
	· · · · · ·	cribe and quantify	them on a separate sheet)
	flat rocks within a stream		salamanders and nesting habita
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky sala		beds (cover for stream
	Present	🛛 Absent	
Underwater banks of fir	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	oank 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 suital	ole for turtle nesting	9
	Present	🛛 Absent	
Wildlife dens/nests (if p	resent, describe & quant	ify them on the bac	ck 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

Bureau of Resource Protection - Wetlands Program

	Vildlife Habitat Protect pendix B: Detailed Wildlife Habitat Evalu		ce		
Pa	art 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 flo green heron, black-crowned night heron, king rail, V	oded during the growing seasor	n (wood duck,		
	Flooded > 5 cm	Present	🛛 Absent		
	Flooded > 25 cm (pied-billed grebe)	Present	Absent		
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, rec	, , , , , , , , , , , , , , , , , , , ,	0		
	Flooded > 5 cm	Present	🛛 Absent		
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent		
	Cattail emergent wetland vegetation at least seasor	ally 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 sedg season (common snipe, spotted sandpiper, sedge v		during the growing		
	Flooded > 5 cm	Present	Absent		
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent		
IV.	Landscape Context				
A.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its		
	Is the impact area part of an emergent marsh at least	1.0 acre in size?	🛛 No		
	(marsh and waterbirds)	2.0 acres in size?	🛛 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

App	endix	B:	Detailed	Wildlife	Habitat	Evaluation
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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	f contiguous forested	l 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	y 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8

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.

 Acushnet to Fall River Reliability Project

 Project Name
 Acushnet, MA. Bordering Vegetated WetaInd D54. CM-18

 Location
 Please see breakdown of impacts below.

 Size of Area Being Impacted
 11/30/2021

 Date
 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. Permanent (Structure footprint)		48 sf (0.001 acre)		0.001 acre
2. Temporary (work pad and access)		7,269 sf (0.17 acre)		0.17 acre
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhs Sate

M. Lamothe

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

Typed or Printed Name

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

	Acushnet, MA						
	Project Location (from NOI page 1)						
	Bordering Vegetated Wetland D54-CM18						
	Impact Area (number/name)						
	1/29/2019						
	Date(s) of Site Visit(s) and Data Collection						
	Cloudy, 33 degrees F, light wind						
Weather Conditions During Site Visit (if snow cover, include depth)							
	M. Lamothe	11/30/2021					
	Person completing form per 310 CMR 10.60(1)(b) Date this form was completed						
	The information on this data sheet is based on my observations unless otherwise indicated						
	Signature						
II.	Site Description (complete A or B under Classification - see instruction	s for full description)					
A.	Classification						
1.	For Wetland Resource Areas, complete the following:						
	Delustria						

System:	Palustrine	Subsystem:	-
Class:	Emergent	Subclass:	Persistent
Hydrology/W	ater Regime		
Permane	ently flooded	Saturated	
Intermitte	ently exposed	Temporarily	flooded
Semi-per	manently flooded		y flooded
🗌 Seasona	lly flooded	Artificially flo	ooded
For Riverfron	t or Bordering Land Subject to Floodin	g Resource Areas	, complete the following.

- 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)
 - "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.

Community Name			
Vegetation Description			
Physical Description			

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	10	0	0	90
			comprise 10% or more of t	Woody vines the vegetative	Mosses cover in eact	Herbaceous a strata; "*" designates
	Strata		Plant Species	Strata		Plant Species
	Shrub		Spiraea tomentosa (5%)*	Herb		Onoclea sensibilis (65%)*
	Shrub		Spiraea alba (<5%)	Herb		Solidago sp. (20%)*
	Shrub		Lyonia ligustrina (<5%)	Herb		Carex spp (<5%)
	Shrub		Viburnum dentatum (<5%)			
C.	Inventory (Soils) Sandbury fine s Soil Survey Unit Ground Frozen Texture (upper part)	andy loar	n, 0 to 3 percent slopes	Moderately Drainage Class - Depth		
	Depth to Water Tab	le				
III.	Important Habi	tat Featu	res (complete for all res	ource areas)		
	If the following ha	bitat chara	cteristics are present, descri	be & quantify the	em on a separa	ate sheet & attach.
	Wildlife Food					
	Important Wetla	nd/Aquat	ic Food Plants (smartwee	ds, pondweeds	s, wild rice, b	ulrush, wild celery)
	Abundant		Present	🛛 Absent		
	Important Uplan	d/Wetlan	d Food Plants (hard mast	and fruit/berry	producers)	
	Abundant		Present	Absent		
	Shrub thickets c	or stream	oeds with abundant earthy	vorms (Americ	an woodcock)
			Present	Absent		
	Shrub and/or he	rbaceous	vegetation suitable for ve	ery nesting		
			Present	🛛 Absent		

rt 2. Field Da	ata Form (continue	ed)			
Number of trees (live or dead) > 30" DBH:	0			
Number (or densi	ty) of Standing Dead Tre	es (potential	for cavities	and perches):
0					0
6-12" dbh	0 12-18" dbh	<u> </u>	-24" dbh		> 24" dbh
Number of Tree C	Cavities in trunks or limbs	s of:			
0 6-12" diameter (e.g., t 0	ree swallow, saw whet owl, scr	reech owl, bluebi	rd, other songl	birds)	
12-18" diameter (e.g.,	hooded merganser, wood duc	k, common golde	eneye, mink)		
0 >18" diameter (e.g., ho	oded merganser, wood duck, cor	mmon aoldeneve.	common mera	anser, barred owl	. mink. raccoon. fisher)
Small mammal bu	-	golaollojo,	eennien merge		,,,
Smail marimai bo	110w5				
Abundant	Present	\boxtimes	Absent		
Cover/Perches/Ba	asking/Denning/Nesting	Habitat			
Dense herbad	ceous cover (voles, smal	Il mammals, a	mphibians	& reptiles)	
Large woody	debris on the ground (sn	nall mammals	s, mink, amp	ohibians & re	ptiles)
Rocks, crevic	es, logs, tree roots or hu	Immocks und	er water's s	urface (turtle	s, snakes, frogs)
	es, fallen logs, overhang ce (turtles, snakes, frogs				
Rock piles, cr	evices, or hollow logs su	uitable for:			
otter	🗌 mink 🗌 p	orcupine	bear	bobcat	turkey vult
	standing vegetation over sher, flycatchers, cedar v		r or offering	good visibili	ty of open water (e
	may serve as seasonal (• /	nal) pools		
•	_		_		
	Present		Absent		
Standing water pr	resent at least part of the	growing sea	son, suitabl	e for use by	
Standing water pr		_		•	aging, re-hydration)
		⊠ Non-b		phibians (fora	aging, re-hydration)

Present Absent

	bitat Prot Wildlife Habitat Ev		Guidance
	· · · · · ·	cribe and quantify	them on a separate sheet)
	flat rocks within a stream		salamanders and nesting habita
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky sala		beds (cover for stream
	Present	🛛 Absent	
Underwater banks of fir	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	oank 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 suital	ole for turtle nesting	9
	Present	🛛 Absent	
Wildlife dens/nests (if p	resent, describe & quant	ify them on the bac	ck 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

Bureau of Resource Protection - Wetlands Program

	Vildlife Habitat Protect pendix B: Detailed Wildlife Habitat Evalu		ce		
	rt 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 flo green heron, black-crowned night heron, king rail, V		n (wood duck,		
	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				
	Flooded > 5 cm	Present	🛛 Absent		
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent		
	Cattail emergent wetland vegetation at least season	ally 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 sedg season (common snipe, spotted sandpiper, sedge v		during the growing		
	Flooded > 5 cm	Present	🛛 Absent		
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent		
IV.	Landscape Context				
A.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its		
	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?	🛛 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

App	endix	B:	Detailed	Wildlife	Habitat	Evaluation
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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	f contiguous forested	l 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 a	ljacent 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8

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.

Acushnet to Fall River Reliability Project	
Project Name	
Acushnet, MA. Bordering Vegetated Wetland D54-CM 17	
Location	
Please refer to breakdown of impacts below.	11/30/2021
Size of Area Being Impacted	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. Temporary (work pad and access) 2.		6,151 sf _(0.19 acre)		0.19 acre
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mha Lata

M. Lamothe Typed or Printed Name

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

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

August 1992. 491 pages.

	Acushnet, M	A		
		(from NOI page 1)		
	Bordering Ve	egetated Wetland D54-CM 17		
	Impact Area (nu			
	1/25/2019			
		/isit(s) and Data Collection		
		ght wind, 36 degrees F		
		ions During Site Visit (if snow cover, include o	depth)	
	M. Lamothe	ing form per 310 CMR 10.60(1)(b)		<u>11/30/2021</u>
	Person completi	Ing form per 310 CMR 10.60(1)(B)		Date this form was completed
	The informat	ion on this data sheet is based on m	y observations unle	ss otherwise indicated
	7	mha Late		
	Signature		-	
	Site Decerin	tion (complete A or B under Clear	ification and inst	rustions for full description)
II.	Site Descrip	otion (complete A or B under Class	sincation - see inst	ructions for full description)
A.	Classificatior	1		
1.	For Wetland	Resource Areas, complete the follow	wing:	
	System:	Palustrine	Subsystem:	
	Class:	Scrub-Shrub	Subclass:	Broad-leaved deciduous
	Hydrology/W	ater Regime		
	, 0,	5		
	Permane	ently flooded	Saturated	
		ently exposed	Temporarily	r flooded
	Semi-pe	rmanently flooded		ly flooded
	🛛 Seasona	Ily flooded	Artificially fl	ooded
2.		nt or Bordering Land Subject to Flood		
		rrestrial classification system such a		
	a. "Classifica Kearsley,	ation of the Natural Communities of Mas MA DFW NHESP, Westborough, MA.	sachusetts (Draft)" by July 2000. (<u>Departmen</u>	Patricia C. Swain and Jennifer B. t of Fish & Game Website)
		land Wildlife: Habitat, Natural History, a DA Forest Service, Northeastern Forest		

Community Name	
Vegetation Description	
Physical Description	

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover:	0 Trees (> 20')	75 Shrubs (< 20')	15 Woody vines	0 Mosses	15 Herbaceous
	· · ·	e 10% or more o	•		n strata; "*" designates
Strata	Plant	Species	Strata		Plant Species
Shrub		a ligustrina	Herb		Osmundastrum
Shrub	(20%) Cleth (35%)	ra alnifolia	Herb		cinnamomeum (5%)* Solidago spp. (15%)*
Shrub		spp. (10%)	Herb		Andropogon
Shrub	Spira	ea alba (10%)	Herb		glomeratus (<5%) Carex spp. (<5%)
Shurb	Vacci		Woody Vine		Smilax rotundifolia
Shrub		1bosum (5%) rubrum (<5%)	Woody Vine		(15%)* Rubus hispidus (<5%)

C. Inventory (Soils)

Scarboro mucky fine sandy loam, 0 to 3 percent	Very poorly drained
slopes	Drainage Class
FSaL (0"-5"), FSaL (5"-12") low chroma	12"
Texture (upper part)	Depth
7"	
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

Shrub thickets or streambeds with abundant earthworms (American woodcock)

Present

🛛 Absent

Absent

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

Absent

rt 2. Field Da	ata Form (continu	ued)			
Number of trees ((live or dead) > 30" DB	H:	0		
Number (or densi	ity) of Standing Dead T	rees (poten	tial for cavities	and perches):
0	., .				0
6-12" dbh	0 12-18" dbh		0 18-24" dbh		> 24" dbh
Number of Tree C	Cavities in trunks or lim	bs of:			
0 6-12" diameter (e.g., t 0	ree swallow, saw whet owl, s	screech owl, bl	uebird, other song	gbirds)	
12-18" diameter (e.g.,	, hooded merganser, wood d	uck, common ç	goldeneye, mink)		
0 >18" diameter (e.g., ho	oded merganser, wood duck, o	common aolden	eve. common mer	anser, barred ow	. mink. raccoon. fisher)
Small mammal bu	-	Jermen geraen	oyo, cominent mon	janoon, banoa om	,,,
Smail maininai bo	litows				
Abundant	Present	t	🛛 Absent		
Cover/Perches/Ba	asking/Denning/Nestin	g Habitat			
🛛 Dense herba	ceous cover (voles, sm	all mammal	s, amphibians	& reptiles)	
Large woody	debris on the ground (small mamn	nals, mink, arr	phibians & re	ptiles)
Rocks, crevic	es, logs, tree roots or l	าummocks เ	under water's	surface (turtle	s, snakes, frogs)
	ces, fallen logs, overhai ce (turtles, snakes, frog	0 0			
Rock piles, ci	revices, or hollow logs	suitable for:			
otter	🗌 mink 🗌	porcupine	🗌 bear	bobcat	turkey vult
	standing vegetation ov isher, flycatchers, ceda			g good visibili	ty of open water (e
Depressions that	may serve as seasona	al (vernal/au	tumnal) pools		
	Present	•	Absent		
	L L L L L L L L L L L L L L L L L L L	1			
Standing water p	resent at least part of th	he growing s	season, suitab	le for use by	
Standing water p		_			aging, re-hydration)
		⊠ No		nphibians (for	aging, re-hydration)

Present Absent

Appendix B: Deta	Habitat Prot		Buidance				
Part 2. Field Da	ta Form (continued)						
Important habitat c	haracteristics (if present, des	cribe and quantify th	em 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					
	on banks or within exposed nesting habitat for dusky salar		eds (cover for stream				
	Present	🛛 Absent					
Underwater banks	of fine silt and/or clay (beave	r, muskrat, otter)					
	Present	🛛 Absent					
Undercut or overha	anging banks (small mammal	s, mink, weasels)					
	Present	🛛 Absent					
Vertical sandy ban	ks (bank swallow, kingfisher)						
	Present	Absent					
Areas of ice-free of	pen water in winter						
	⊠ Present	Absent					
Mud flats							
	Present	🛛 Absent					
Exposed areas of v	well-drained, sandy soil suitat	ble for turtle nesting					
	Present	🛛 Absent					
Wildlife dens/nests	(if present, describe & quant	ify them on the back	<u>c of this sheet)</u>				
Turtle nesting sites	3						
	Present	🛛 Absent					
Bank swallow colo	ny						
	Present	🛛 Absent					
Nest(s) present of	Bald Eagle	Osprey	Great Blue Heron				
Den(s) present of	Otter	Mink	Beaver				

Bureau of Resource Protection - Wetlands Program

	Vildlife Habitat Protection Protection B: Detailed Wildlife Habitat Evalu		се				
Pa	art 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 sea (mallard, American bittern, sora, common snipe, rec	0					
	Flooded > 5 cm	Present	Absent				
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent				
	Cattail emergent wetland vegetation at least seasor	ergent wetland vegetation at least seasonally flooded during the growing					
	Flooded > 5 cm (marsh wren)	Present	Absent				
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent				
		ine-leafed emergent vegetation (grasses and sedges) at least seasonally flooded c eason (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?	🛛 No				
	(marsh and waterbirds)	2.0 acres in size? Ves	🛛 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

	Ap	penc	lix B	: Detailed	Wildlife	Habitat	Evaluation
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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	f contiguous forested	l 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

- 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)

Evidenc	e of significant	t chemical	contamination
---------	------------------	------------	---------------

- Evidence of significant levels of dumping
- Evidence of significant erosion or sedimentation problems
- Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

Disturbance from roads or highways	
------------------------------------	--

the	sita	the	only	resource	area in	the	vicinity	of an	otherwise	developed	area
uic	JILU			resource				or an		acveloped	arca

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.

ls Is

Other human disturbance

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8

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.

 Acushnet to Fall River Reliability Projetc

 Project Name
 Acushnet, MA. Bordering Vegetated Wetland D53- CM 21

 Location
 Please see breakdown of impacts below.

 Size of Area Being Impacted
 11/30/2021

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. Temporary (access and work pad) 2.		16,384 sf _(0.38 acre)		0.38 acre
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

Sata mhy

_____M. Lamothe Typed or Printed Name

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

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

	Acushnet, MA						
			rom NOI page 1)				
			etated Wetland D53- CM 21				
	Impa	ict Area (num	ber/name)				
		9/2019					
		(s) of Site Vis					
			grees F, light wind. Is During Site Visit (if snow cover, include dep				
		amothe	11/30/2021				
	Pers	on completing	form per 310 CMR 10.60(1)(b)		Date this form was completed		
	The	informatio	n on this data sheet is based on my	observations unles	s otherwise indicated		
			mha Satre				
	Signa	ature	_ man a are _				
	Site	Docorinti	on (complete A or B under Classif	ination and instr	uctions for full description)		
II.	Sile	Descripti	on (complete A or B under Classif	ication - see instr	uctions for full description)		
A.	Clas	ssification					
1.	For	Wetland R	esource Areas, complete the followir	ng:			
	Sys	tem:	Palistrine	Subsystem:	<u>-</u>		
	Class:		Emergent	Subclass:	Persistent		
			er Regime				
	Tiyu	nology/wa	er regime				
		Permanen	tly flooded	SaturatedTemporarily flooded			
		Intermitten	tly exposed				
		Semi-perm	nanently flooded		/ flooded		
	\square	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:					
		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.					

Community Name

Vegetation Description

Physical Description

Wildlife Habitat Protection Guidance

A	D	bendix	B:	Detailed	Wildlife	Habitat	Evaluation
		JOHIGIA	Ξ.	Detanca	Winding	ilasitat	LValuation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	0	0	0	100	
		Trees (> 20	0') Shrubs (< 20')	Woody vines	Mosses	Herbaceous	
	a dominant plan		omprise 10% or more of or the strata):	the vegetative	cover in each	n strata; """ designates	
	Strata Plant S		Plant Species	Strata		Plant Species	
	Herbs		Phragmites australis (100%)*				
	Herbs		Salidago spp. (<5%)				
	Shrub		Spiraea alba (<5%)				
	Shrub		Salix spp. (<5%)				
C.	Inventory (Soils)	1					
	Whitman fine sandy loam, 0 to 3 percent slope extremely stony		0 to 3 percent slopes,	Very poorly Drainage Class			
	Organic hemic (0"-6")		6", soils froz	en			
	Texture (upper part)			Depth			
	6",soils frozen. Standing water @ 0"						
	Depth to Water Tabl	е					
III.	Important Habi	tat Featur	es (complete for all re	source areas)			
	If the following ha	oitat charac	teristics are present, desc	ribe & quantify th	em on a separ	ate sheet & attach.	
	Wildlife Food						
	Important Wetla	nd/Aquatio	c Food Plants (smartwee	eds, pondweed	s, wild rice, b	ulrush, wild celery)	
	Abundant		Present	Absent			
	Important Upland/Wetland Food Plants (hard mas		t and fruit/berry	producers)			
	Abundant		Present	🛛 Absent			
	Shrub thickets o	r streambe	eds with abundant earth	worms (Americ	an woodcock	x)	
			Present	🛛 Absent			
	Shrub and/or he	rbaceous	vegetation suitable for v	veery nesting			
			Present	🛛 Absent			

rt 2. Field Da	ata Form (cont	tinued)			
Number of trees ((live or dead) > 30" [DBH:	0		
Number (or densi	ty) of Standing Dea	d Trees (pote	ntial for cavities	and perches):	
0	0			0	
6-12" dbh	12-18" dbh		0 18-24" dbh	> 2	4" dbh
Number of Tree C	Cavities in trunks or	limbs of:			
0 6-12" diameter (e.g., tr 0	ree swallow, saw whet o	wl, screech owl, l	bluebird, other song	birds)	
12-18" diameter (e.g.,	hooded merganser, woo	od duck, commor	goldeneye, mink)		
0 >18" diameter (e.g., hoo	oded merganser, wood du	ck, common golde	neye, common merg	anser, barred owl, mi	nk, raccoon, fisher)
Small mammal bu	irrows				
Abundant	Pres	ent	🛛 Absent		
Cover/Perches/Ba	asking/Denning/Nes	sting Habitat			
🛛 Dense herbad	ceous cover (voles,	small mamma	als, amphibians	& reptiles)	
Large woody	debris on the groun	d (small mam	mals, mink, am	phibians & reptil	es)
Rocks, crevic	es, logs, tree roots	or hummocks	under water's s	surface (turtles, s	snakes, frogs)
	es, fallen logs, over ce (turtles, snakes, f				
Rock piles, cr	evices, or hollow log	gs suitable for			
otter	mink [porcupine	🗌 bear	bobcat	turkey vult
	standing vegetation sher, flycatchers, ce			g good visibility o	of open water (e
Depressions that	may serve as seaso	onal (vernal/a	utumnal) pools		
	Pres	ent	🛛 Absent		
Standing water pr	esent at least part o	of the growing	season, suitab	le for use by	
				le for use by nphibians (foragi	ng, re-hydration
		⊠ N		nphibians (foragi	ng, re-hydration)

Present Absent

pendix B: Detailed	bitat Prot Wildlife Habitat Ev		Guidance
art 2. Field Data	, , , , , , , , , , , , , , , , , , ,	cribe and quantify t	them on a separate sheet)
•	flat rocks within a stream		salamanders and nesting habita
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky sala		beds (cover for stream
	Present	🛛 Absent	
Underwater banks of fi	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	ank 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 suital	ole for turtle nesting	g
	Present	🛛 Absent	
Wildlife dens/nests (if p	resent, describe & quant	ify them on the bac	ck 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

Bureau of Resource Protection - Wetlands Program

	Vildlife Habitat Protect pendix B: Detailed Wildlife Habitat Evalu		ce		
	rt 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 flo green heron, black-crowned night heron, king rail, V		n (wood duck,		
	Flooded > 5 cm	⊠ Present	Absent		
	Flooded > 25 cm (pied-billed grebe)	Present	Absent		
	Persistent emergent wetland vegetation at least seasonally flooded during the growing sea (mallard, American bittern, sora, common snipe, red-winged blackbird, swamp sparrow, ma				
	Flooded > 5 cm	⊠ Present	Absent		
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent		
	Cattail emergent wetland vegetation at least season	ally 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 sedg season (common snipe, spotted sandpiper, sedge v		during the growing		
	Flooded > 5 cm	Present	Absent		
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent		
IV.	Landscape Context				
A.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its		
	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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed	Wildlife Habitat Evaluation
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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 a	ljacent 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8

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.

Acushnet to Fall River Reliabily Project		
Project Name		
Acushnet, MA. Bordering Vegetated Wetland D51-CM 22		
Please see breakdown of impacts below.	11/30/2021	
Size of Area Being Impacted	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. Temporary (work pads)		6.606 sf		0.14 acre
2.		(0.14 acre)		
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

Satre mhy

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

M. Lamothe Typed or Printed Name

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

	Acushnet, MA		
	Project Location (from NOI page 1)		
	Bordering Vegetated Wetland D51, "D51-CM-22"		
	Impact Area (number/name)		
	1/29/2019		
Date(s) of Site Visit(s) and Data Collection			
Cloudy 33 degrees F, light wind.			
Weather Conditions During Site Visit (if snow cover, include depth) M. Lamothe 11/30/2021			
			11/30/2021
	Person completing form per 310 CMR 10.60(1)(b)		Date this form was completed
	The information on this data sheet is based on my	y observations unle	ss otherwise indicated
	Signature mha Latre		
	-		
II.	Site Description (complete A or B under Class	sification - see inst	ructions for full description)
A.	Classification		
1.	For Wetland Resource Areas, complete the follow	ving:	
	System: Palustrine	Subsystem:	<u> </u>
	Class: Emergent	Subclass:	Persistent
	01035.	00000035.	
	Hydrology/Water Regime		
	Permanently flooded	Saturated	
	Intermittently exposed	Temporarily	/ flooded
	Semi-permanently flooded	Intermittent	ly flooded
	Seasonally flooded	Artificially fl	ooded
2.	For Riverfront or Bordering Land Subject to Flood Use a terrestrial classification system such as		
	a. "Classification of the Natural Communities of Mass Kearsley, MA DFW NHESP, Westborough, MA. J	sachusetts (Draft)" by	Patricia C. Swain and Jennifer B.
	 "New England Wildlife: Habitat, Natural History, ar Rudis, USDA Forest Service, Northeastern Forest August 1992. 491 pages. 	nd Distribution" by Ric Experiment Station.	hard M. DeGraaf and Deborah D. General Technical Report NE-108.

Community Name	
Vegetation Description	
Physical Description	

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	<u>5</u> 20') Shrubs (< 20')	0	nes <u>5</u> Mosses	90	
			comprise 10% or more of t	Woody vir he vegeta:		Herbaceous h strata; "*" designates	
	Strata		Plant Species	Strata		Plant Species	
	Shrub		Swida sp. (5%)*	Shrub		Rosa multiflora (<5%)	
	Herb		Lythrum virgatum (70%)*	Shrub		Salix sp. (<5%)	
	Herb		Juncus effusus (15%)	Shrub		Spiraea alba (<5%)	
	Herb		Dichanthelium clandestinum (15%)	Herb		Juncus sp. (<5%)	
	Herb		Phragmites australis (10%)				
	Herb		Solidago sp.(25%)	. <u></u>			
C.	Inventory (Soils)						
	Whitman fine sandy loam, 0 to 3 percent slopes, extremely stony			Very po Drainage	orly drained		
	Mucky SaL w/gra	avels (0"	-5")	5"			
	Texture (upper part) 5"	Texture (upper part)		Depth			
	Depth to Water Table						
III.			ires (complete for all res	ource are	as)		
	If the following hat	oitat chara	acteristics are present, descri	be & quanti	fy them on a sepa	rate sheet & attach.	
	Wildlife Food						
	Important Wetlar	nd/Aquat	ic Food Plants (smartwee	ds, pondw	eeds, wild rice, b	ulrush, wild celery)	
	Abundant		Present	🛛 Abs	ent		
	Important Uplan	d/Wetlan	d Food Plants (hard mast	and fruit/b	erry producers)		
	Abundant		Present	🛛 Abs	ent		
	Shrub thickets o	r streaml	peds with abundant earthv	vorms (Am	erican woodcocl	<)	
			Present	🛛 Abs	ent		
	Shrub and/or he	rbaceous	s vegetation suitable for ve	ery nestin	g		
	Present				ent		

rt 2. Field D	ata Form (continu	ed)			
Number of trees ((live or dead) > 30" DB⊦	1:	0		
Number (or densi	ity) of Standing Dead Tr	·ees (potenti	al for cavities	and perches)	:
0				. ,	0
6-12" dbh	0 12-18" dbh		0 18-24" dbh		> 24" dbh
Number of Tree C	Cavities in trunks or limb	os of:			
0 6-12" diameter (e.g., t 0	ree swallow, saw whet owl, so	creech owl, blu	ebird, other sonç	jbirds)	
12-18" diameter (e.g.,	, hooded merganser, wood du	ick, common go	oldeneye, mink)		
0 >18" diameter (e.g., ho	oded merganser, wood duck, co	ommon goldene	ve. common mer	anser, barred owl	mink, raccoon, fisher)
Small mammal bu	-	Server geneerie	, e, eee.	Janeon, 241104 0111	
Smail maininai bo	110W5				
Abundant	Present		🛛 Absent		
Cover/Perches/Ba	asking/Denning/Nesting	j Habitat			
Dense herba	ceous cover (voles, sma	all mammals	, amphibians	& reptiles)	
Large woody	debris on the ground (s	mall mamm	als, mink, am	phibians & rej	otiles)
Rocks, crevic	es, logs, tree roots or h	ummocks ur	nder water's s	surface (turtles	s, snakes, frogs)
	ces, fallen logs, overhan ce (turtles, snakes, frogs				
Rock piles, ci	revices, or hollow logs s	uitable for:			
otter	🗌 mink 🗌 ı	porcupine	bear	bobcat	turkey vult
	standing vegetation ove isher, flycatchers, cedar		ater or offering	g good visibilit	y of open water (e
Depressions that	may serve as seasonal	(vernal/auti	umnal) pools		
			Absent		
	Drocont				
	Present				
Standing water p	Present		eason, suitab	le for use by	
Standing water p	resent at least part of th	e growing se			aging, re-hydration)
	resent at least part of th	e growing se		nphibians (fora	aging, re-hydration)

Present Absent

	bitat Prot Wildlife Habitat Ev		Guidance			
	· · · · · ·	cribe and quantify	them on a separate sheet)			
Medium to large (> 6"),	portant habitat characteristics (if present, describe and quantify them on a separate sheet) dium to large (> 6"), flat rocks within a stream (cover for stream salamanders and nesting habita spring & two-lined salamanders)					
	Present	🛛 Absent				
	banks or within exposed ng habitat for dusky sala		beds (cover for stream			
	Present	🛛 Absent				
Underwater banks of fir	ne silt and/or clay (beave	r, muskrat, otter)				
	Present	🛛 Absent				
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)				
	Present	🛛 Absent				
Vertical sandy banks (b	oank 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 suital	ole for turtle nesting	9			
	Present	🛛 Absent				
Wildlife dens/nests (if p	resent, describe & quant	ify them on the bac	ck 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			

Bureau of Resource Protection - Wetlands Program

	Vildlife Habitat Protect pendix B: Detailed Wildlife Habitat Evalu		се					
Pa	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 seasor (mallard, American bittern, sora, common snipe, red-winged blackbird, swamp sparrow, marsh							
	Flooded > 5 cm	⊠ Present	Absent					
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent					
	Cattail emergent wetland vegetation at least seasor	nally flooded during the growing s	eason					
	Flooded > 5 cm (marsh wren)	Present	Absent					
	Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent					
	Fine-leafed emergent vegetation (grasses and sedg season (common snipe, spotted sandpiper, sedge v		uring the growing					
	Flooded > 5 cm	Present	Absent					
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent					
IV.	Landscape Context							
Α.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its					
	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.

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Wildlife Habitat Protection Guidance

Appendix B: Detailed	Wildlife Habitat Evaluation
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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	f 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 a	ljacent areas of wildlife habitat	(little connectivity function)
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- 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- ☑ 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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Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8

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.

Acushnet to Fall River Reliability Project	
Project Name	
Acushnet, MA. Bordering Vegetated Wetland D50-CM 26	
Location	
Please refer to breakdown of impacts below.	11/30/2021
Size of Area Being Impacted	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. Permanent (structure footprint)		25 sf		25 sf
2. Temporary (work area)		5,513 sf (0.13 acre)		0.13 acre
<u>3.</u>		(0.1.0 00.0)		
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mha Late

M. Lamothe

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

Typed or Printed Name

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

	Acushnet, MA					
	Project Location (from NOI page 1)					
	Bordering Ve	egetated Wetland D50, "D50-CM-26	"			
	Impact Area (nu	mber/name)				
	1/25/2019					
Date(s) of Site Visit(s) and Data Collection						
Sunny, 30 degrees F, light wind Weather Conditions During Site Visit (if snow cover, include depth)						
						M. Lamothe 11/30/2021
	Person completi	ing form per 310 CMR 10.60(1)(b)		Date this form was completed		
The information on this data sheet is based on my observations unless otherwise indicated				less otherwise indicated		
	Signature					
II.	Site Descrip	tion (complete A or B under Clas	sification - see in	structions for full description)		
A.	Classification					
1.	For Wetland	Resource Areas, complete the follo	wing:			
	System:	Palustrine	- Subsystem:			
	Class:	Scrub Shrub/ Emergent	- Subclass:	Broad-leaved Deciduous/Emergent		
	Hydrology/Water Regime					
	Permane	ently flooded	Saturated			
		ently exposed	Temporar	Temporarily flooded		
	Semi-pei	rmanently flooded	Intermitter	ntly flooded		
	Seasona	Ily flooded	Artificially	flooded		
2.	Use a ter a. "Classifica					
	b. "New Eng Rudis, US	 Kearsley, MA DFW NHESP, Westborough, MA. July 2000. (Department of Fish & Game Website) "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. 				

Community Name	
Vegetation Description	
Physical Description	

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	70	5 Woody vines	0 Mosses	30 Herbaceous
				the vegetative cover in each strata; "*" designat		
	Strata Plant Spec		Plant Species	Strata		Plant Species
	Shrub		Spiraea alba (10%)	Herb		Dichanthelium
	Shrub		Spiraea tomentosa (15%)	Herb		clandestinum (30%)* Solidago sp. (25%)*
	Shrub		Vaccinium	Woody Vines Rubus hi		Rubus hispidus (5%)*
	Shrub		corymbosum (5%) Ilex verticillata (30%)*			
	Shrub		Swida amomum (25%)*			
C.	Whitman fine sandy loam, 0 to 3 percent slopes extremely stony FSaL (0"-12") Texture (upper part)		n, 0 to 3 percent slopes,	Very poorly d Drainage Class 12" Depth	rained	
	7" Depth to Water Tab	le				
III.	Important Habi	itat Featu	ires (complete for all res	ource areas)		
	If the following habitat characteristics are present, desc			be & quantify the	m on a separ	ate sheet & attach.
	Wildlife Food		•			
Important Wetland/Aquatic Food Plants (smartweeds, pondweeds, wild rice, bulrush, wild celer					ulrush, wild celery)	
	Abundant		Present	🛛 Absent		
	Important Upland/Wetland Food Plants (hard mas			and fruit/berry p	producers)	
	Abundant		Present	Absent		
	Shrub thickets of	or stream	beds with abundant earthv	vorms (America	n woodcock	x)
			Present	🛛 Absent		
	Shrub and/or he	erbaceou	s vegetation suitable for ve	eery nesting		
			Present	🛛 Absent		

rt 2. Field Da	ata Form (co	ontinued)			
Number of trees ((live or dead) > 3	0" DBH:	0		
	· · ·		tantial for advitio	a and narahaa);	
Number (or densi 0		read frees (po		s and perches).	
6-12" dbh	12-18" db	h	0 18-24" dbh	> 2	4" dbh
Number of Tree (Cavities in trunks	or limbs of:			
0					
6-12" diameter (e.g., t 0	ree swallow, saw wh	et owl, screech ow	vl, bluebird, other sor	ngbirds)	
0 12-18" diameter (e.g.,	hooded merganser,	wood duck, comm	non goldeneye, mink)	1	
0 >18" diameter (e.g., ho	oded merganser woo	d duck common do	Idanava, common ma	raapser, barred owl, mi	ink raccoon fisher)
	-	d dder, common go	ideneye, common me	rganser, barred owi, mi	ink, faccoon, fisher)
Small mammal bu	unows				
Abundant	🖾 P	resent	Absent		
Cover/Perches/B	asking/Denning/I	Nesting Habita	t		
🛛 Dense herba	ceous cover (vol	es, small mam	mals, amphibian	s & reptiles)	
Large woody	debris on the gro	ound (small ma	ammals, mink, ar	nphibians & reptil	les)
Rocks, crevic	es, logs, tree roc	ots or hummoc	ks under water's	surface (turtles, s	snakes, frogs)
				ocks at, or within uck, mink, raccoo	
🗌 Rock piles, ci	revices, or hollow	logs suitable	for:		
otter	mink	porcupin	e 🗌 bear	bobcat	turkey vult
	standing vegetat sher, flycatchers			ng good visibility o	of open water (e
Depressions that	may serve as se	asonal (vernal	/autumnal) pools	;	
·		resent	Absent		
			_		
Standing water p	resent at least pa	art of the growing	ng season, suita	ble for use by	
Breeding amplements	phibians	\boxtimes	Non-breeding a	mphibians (foragi	ng, re-hydration)
Turtles			Foraging waterf	owl	
			-		

Present Absent

	bitat Prot Wildlife Habitat Ev		Guidance
	· · · · · ·	cribe and quantify	them on a separate sheet)
	flat rocks within a stream		salamanders and nesting habita
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky sala		beds (cover for stream
	Present	🛛 Absent	
Underwater banks of fir	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	oank 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 suital	ole for turtle nesting	9
	Present	🛛 Absent	
Wildlife dens/nests (if p	resent, describe & quant	ify them on the bac	ck 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

Bureau of Resource Protection - Wetlands Program

	Vildlife Habitat Prote pendix B: Detailed Wildlife Habitat Evalu		ce		
Pa	art 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 flo green heron, black-crowned night heron, king rail, V		n (wood duck,		
	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 w				
	Flooded > 5 cm	Present	🛛 Absent		
	Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent		
	Cattail emergent wetland vegetation at least seasor	ally 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 grow season (common snipe, spotted sandpiper, sedge wren)				
	Flooded > 5 cm	Present	🛛 Absent		
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent		
IV.	Landscape Context				
Α.	. 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? Ves	🛛 No		
	(marsh and waterbirds)	2.0 acres in size?	🛛 No		
		5.0 acres in size?	🛛 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation		
Part 2 Field Data Form (continued)		

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	f 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

- 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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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Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation Part 1. Summary Sheet Important: When Acushnet to Fall River Reliability Project Project Name on the computer, Acushnet, MA. Bordering Vegetated Wetland D50-CM 25 and CM 24 use only the tab Location key to move your Please refer to breakdown of impacts below. 11/30/2021 Size of Area Being Impacted Date Impact Areas (linear feet, square feet, or acres for each of the impact areas within the site) Waterbody/ Name Wetland Upland* **Total Area** Waterway 1. Termporary (work pads) 3,586 sf 0.08 acre (0.08 acre) 2. 3. 4. 5.



6.

7.

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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))

M. Lamothe Typed or Printed Name



filling out forms

cursor - do not

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Acushnet, MA						
Project Location (from NOI page 1) Bordering Vegetated Wetland D50-CM 25 and CM 24						
						•
Date(s) of Site Visit(s) and Data Collection						
Partly su	nny, 30 degrees F					
	onditions During Site Visit (if snow cover, inc	clude depth)	4.4.10.0.10.0.0.4			
M. Lamo	the npleting form per 310 CMR 10.60(1)(b)		<u>11/30/2021</u>			
Person con	pleting form per 310 CMR 10.60(1)(b)		Date this form was completed			
The mor	mation on this data sheet is based	on my observations unit	ess otherwise indicated			
Signature						
I. Site Des	cription (complete A or B under (Classification - see ins	structions for full description)			
A. Classifica	ation					
1. For Wetla	For Wetland Resource Areas, complete the following:					
System:	Palustrine	Subsystem:	-			
•)••••		••••••	Decedue et			
Class:	Scrub Shrub/Emergent	Subclass:	Broad-leaved Deciduous/Persistent			
Hydrolog	y/Water Regime					
Perm	nanently flooded	Saturated				
Inter	mittently exposed	🗌 Temporari	Temporarily flooded			
Sem	Semi-permanently flooded		ly flooded			
	-permanently flooded		ly 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:
 - "Classification of the Natural Communities of Massachusetts (Draft)" by Patricia C. Swain and Jennifer B. a. Kearsley, MA DFW NHESP, Westborough, MA. July 2000. (Department of Fish & Game Website)
 - "New England Wildlife: Habitat, Natural History, and Distribution" by Richard M. DeGraaf and Deborah D. b. Rudis, USDA Forest Service, Northeastern Forest Experiment Station. General Technical Report NE-108. August 1992. 491 pages.

Community Name		
Vegetation Description		
Physical Description		

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover:	0 Trees (> 20')	70 Shrubs (< 20')	5 Woody vines	0 Mosses	30 Herbaceous
	. ,	rise 10% or more of	•	over in eacł	n strata; "*" designates
Strata	Plar	nt Species	Strata		Plant Species
Shrub		cinium	Herb		Solidago sp. (35%)*
Shrub		mbosum(5%) hra alnifolia %)*	Herb		Osmundastrum cinnamomeum (25%)*
Shrub		aea alba (5%)	Herb		Dichanthelium clandestinum (5%)
Shrub	Rub (<5%	us allegheniensis %)	Herb		Lythrum virgatum (<5%)
Shrub		aea tomentosa	Woody Vine		Celastrus orbiculatus (<5%)
Shrub		tiflora rosa (<5%)	Woody Vine		Smilax rotundifolia (<5%)
Inventory (So	ile)				(<5%)

C. Inventory (Soils)

Whitman fine sandy loam, 0 to 3 percent slopes,	Very poorly drained
extremely stony	Drainage Class
Mucky FSaL (0"-4"), SaL w/gravels (4"-12")	12"
Texture (upper part)	Depth
4"	
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 Pre	esent
--------------	-------

🛛 Absent

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

Abundant Present

Shrub thickets or streambeds with abundant earthworms (American woodcock)

Present

Absent

Absent

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

🛛 Absent

rt 2. Field Da	ata Form (co	ontinued)			
Number of trees (live or dead) > 3	0" DBH:	0		
Number (or densi	ty) of Standing D	lead Trees (not	ontial for cavitio	s and norchos):	
0		eau mees (por			
6-12" dbh	12-18" db	h	0 18-24" dbh	> 2	4" dbh
Number of Tree C	avities in trunks	or limbs of:			
0					
6-12" diameter (e.g., t 0	ree swallow, saw who	et owl, screech ow	, bluebird, other son	gbirds)	
12-18" diameter (e.g.,	hooded merganser,	wood duck, commo	on goldeneye, mink)		
0 >18" diameter (e.g., hor	oded merganser, wood	d duck, common gol	deneye, common mer	ganser, barred owl, mi	nk, raccoon, fisher)
Small mammal bu		-		-	
Abundant	P	resent	Absent		
Cover/Perches/Ba	asking/Denning/N	Nesting Habitat			
Dense herbad	ceous cover (vole	es, small mamn	nals, amphibians	s & reptiles)	
🛛 Large woody	debris on the gro	ound (small ma	mmals, mink, an	nphibians & reptil	es)
Rocks, crevic	es, logs, tree roo	ots or hummock	s under water's	surface (turtles, s	snakes, frogs)
				ocks at, or within ick, mink, raccoor	
Rock piles, cr	evices, or hollow	logs suitable f	or:		
otter	mink	porcupine	bear	bobcat	turkey vult
	standing vegetati sher, flycatchers			ng good visibility o	of open water (e.
Depressions that	may serve as se	asonal (vernal/	autumnal) pools		
	P	resent	Absent		
Standing water pr	esent at least pa	irt of the growin	g season, suital	ole for use by	
Breeding amp	ohibians	\boxtimes	Non-breeding ar	mphibians (foragi	ng, re-hydration)
Turtles			Foraging waterfo	owl	
Sphagnum humm		oss-covered loo g (four-toed sal		ogs, overhanging	or directly adjac

Present Absent

	bitat Prot Wildlife Habitat Ev		Guidance
	· · · · · ·	cribe and quantify	them on a separate sheet)
•	flat rocks within a stream		salamanders and nesting habita
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky sala		beds (cover for stream
	Present	🛛 Absent	
Underwater banks of fi	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	oank 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 suital	ole for turtle nesting]
	Present	🛛 Absent	
Wildlife dens/nests (if p	resent, describe & quant	ify them on the bac	<u>k of this sheet)</u>
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

Bureau of Resource Protection - Wetlands Program

	Vildlife Habitat Protect pendix B: Detailed Wildlife Habitat Evalu		ce
Pa	art 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 flo green heron, black-crowned night heron, king rail, V		n (wood duck,
	Flooded > 5 cm	Present	🛛 Absent
	Flooded > 25 cm (pied-billed grebe)	Present	Absent
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, rec	, , , , , , , , , , , , , , , , , , , ,	0
	Flooded > 5 cm	Present	Absent
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent
	Cattail emergent wetland vegetation at least seasor	ally 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 sedg season (common snipe, spotted sandpiper, sedge v		during the growing
	Flooded > 5 cm	Present	Absent
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent
IV.	Landscape Context		
A.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its
	Is the impact area part of an emergent marsh at least	1.0 acre in size?	🛛 No
	(marsh and waterbirds)	2.0 acres in size?	🛛 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.

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Wildlife Habitat Protection Guidance

|--|

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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8

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.

Acushnet to Fall River Reliability Project	
Project Name	
Acushnet, MA. Bordering Vegetated Wetland D48-CM 29	
Location	
Please refer to breakdown of impacts below.	11/30/2021
Size of Area Being Impacted	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. Permanent (structure footprint)		118 sf (0.003 acre)		0.003 acre
2.				
<u>3.</u>				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mha Lata

M. Lamothe Typed or Printed Name

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

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Acushnet, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D48-CM 29	
Impact Area (number/name)	
1/29/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 33 degrees F	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/30/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed
The information on this data sheet is based on my observations unl $m_{\rm sheet}$	ess otherwise indicated

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:	
Class:	Scrub Shrub/Emergent	- Subclass: Broad-leaved Deciduous/Emergent	
Hydrology/Wa	ater Regime		
Permane	ntly flooded	Saturated	
Intermittently exposed		Temporarily	flooded
Semi-per	manently flooded		y flooded
Seasonally flooded		Artificially flo	poded
For Riverfron	t or Bordering Land Subject to Floodin	a Resource Areas	complete the following.

- 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)
 - "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.

Community Name		
Vegetation Description		
Physical Description		

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover:	0 Trees (> 20	<u>80</u> Shrubs (< 20')	5 Woody vines	15 Mosses	20 Herbaceous
		mprise 10% or more of	•		
Strata		Plant Species	Strata		Plant Species
Shrub		Lyonia ligustrina	Shrub		Salix sp. (<5%)
Shrub		(30%)* Clethra alnifolia (15%)	Herb		Solidago sp. (20%)*
Shrub		Vaccinium	Herb		Phragmites australis (5%)
Shrub	-	corymbosum (30%) Pinus strobus (15%)	Herb	-	(5%) Carex sp. (5%)
Shrub		Spiraea tomentosa	Woody Vine		Smilax rotundifolia
Shrub	_	(5%) Spiraea alba (5%)	Moss	-	(5%)* Sphagnum sp. (15%)*

C. Inventory (Soils)

Whitman fine sandy loam, 0-3 percent slopes, extremelu stony	Very poorly drained Drainage Class
Soils frozen	soils frozen
Texture (upper part)	Depth
0" in some areas	
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

ent 🗌 Absent

Shrub thickets or streambeds with abundant earthworms (American woodcock)

Present

🛛 Absent

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

Absent

rt 2. Field Da	ta Form (co	ontinued)			
Number of trees (I	ive or dead) > 3	0" DBH:	0		
Number (or densit	v) of Standing D	ead Trees (no	tential for cavitie	s and nerches).	
0		ead frees (po			
6-12" dbh	12-18" db	h	0 18-24" dbh	> 2	4" dbh
Number of Tree C	avities in trunks	or limbs of:			
0					
6-12" diameter (e.g., tr 0	ee swallow, saw wh	et owl, screech ow	I, bluebird, other sor	ngbirds)	
12-18" diameter (e.g.,	nooded merganser,	wood duck, comm	on goldeneye, mink)	1	
0 >18" diameter (e.g., hoo	ded merganser, wood	d duck, common go	deneye, common me	rganser, barred owl, mi	nk, raccoon, fisher)
Small mammal bu	-		·	-	
Abundant	P	resent	Absent		
Cover/Perches/Ba	sking/Denning/N	Nesting Habitat			
🛛 Dense herbac	eous cover (vole	es, small mamr	nals, amphibian	s & reptiles)	
Large woody of	debris on the gro	ound (small ma	mmals, mink, ar	nphibians & reptil	es)
Rocks, crevice	es, logs, tree roc	ots or hummocl	s under water's	surface (turtles, s	snakes, frogs)
				ocks at, or within uck, mink, raccoo	
Rock piles, cre	evices, or hollow	logs suitable f	or:		
otter	mink	porcupine	e 🗌 bear	bobcat	turkey vultu
	tanding vegetat			ng good visibility o	of open water (e.
Depressions that r	nay serve as se	asonal (vernal/	autumnal) pools		
	🗌 P	resent	🛛 Absent		
Standing water pro	esent at least pa	art of the growir	ng season, suita	ble for use by	
Breeding amp	hibians	\boxtimes	Non-breeding a	mphibians (foragi	ng, re-hydration)
Turtles			Foraging waterf	owl	
Sphagnum humm	ucks or mats. m	oss-covered lo	as or saturated l	oas. overhanging	or directly adiad

Present	Absent
---------	--------

	bitat Prot Wildlife Habitat Ev		Guidance
	· · · · · ·	cribe and quantify	them on a separate sheet)
	flat rocks within a stream		salamanders and nesting habita
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky sala		beds (cover for stream
	Present	🛛 Absent	
Underwater banks of fir	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	oank 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 suital	ole for turtle nesting	9
	Present	🛛 Absent	
Wildlife dens/nests (if p	resent, describe & quant	ify them on the bac	ck 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

Bureau of Resource Protection - Wetlands Program

	Vildlife Habitat Protect pendix B: Detailed Wildlife Habitat Evalu		ce			
	rt 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 flo green heron, black-crowned night heron, king rail, V		n (wood duck,			
	Flooded > 5 cm	Present	🛛 Absent			
	Flooded > 25 cm (pied-billed grebe)	Present	Absent			
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, rec					
	Flooded > 5 cm	Present	🛛 Absent			
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent			
	Cattail emergent wetland vegetation at least season	il 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 sedg season (common snipe, spotted sandpiper, sedge v		during the growing			
	Flooded > 5 cm	Present	🛛 Absent			
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent			
IV.	Landscape Context					
A.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its			
	Is the impact area part of an emergent marsh at least	1.0 acre in size?	🖾 No			
	(marsh and waterbirds)	2.0 acres in size?	🛛 No			
		5.0 acres in size?	🛛 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation	
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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 o	f contiguous forested	I 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8

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.

Acushnet to Fall River Reliability Project	
Project Name	
Acushnet, MA. Bordering Vegetated Wetland D48	
Please refer to breakdown of impacts below.	11/30/2021
Size of Area Being Impacted	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. Permanent (structure		11 sf		11 sf
footprint) 2. Temporary (work pad)		4,346 sf (0.10 acre)		0.10 acre
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

M. Lamothe

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

Typed or Printed Name

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

••	C C C C C C C C C C						
	Acushnet, M	A					
	Project Location	n (from NOI page 1)					
		egetated Wetland D48, "D48-CN	1-28"				
Impact Area (number/name)							
	1/29/2019						
		Visit(s) and Data Collection					
	Partly sunny		Lide devite)				
		tions During Site Visit (if snow cover, incl	lude depth)	11/00/0001			
	M. Lamothe	ting form per 310 CMR 10.60(1)(b)		11/30/2021 Date this form was completed			
	Person complet			Date this form was completed			
	The information	tion on this data sheet is based o	on my observations unl	ess otherwise indicated			
		many Sate					
	Signature						
II.	Site Descrip	otion (complete A or B under C	classification - see ins	structions for full description)			
A.	Classificatio	n					
Λ.	Classification						
1.	For Wetland	Resource Areas, complete the f	following:				
		Palustrine	0				
	System:	Falustime	Subsystem:	<u>-</u>			
		Scrub Shrub		Broad-leaved Deciduous			
	Class:		Subclass:				
	Hydrology/M	latar Bagima					
	Hydrology/W	/ater Regime					
		ently flooded	Saturated				
	Intermitt	ently exposed	Temporari	ly flooded			
	🗌 Semi-pe	rmanently flooded	Intermitter	ntly flooded			
	🛛 Seasona	ally flooded	Artificially	flooded			
2.	For Riverfrom	nt or Bordering Land Subject to F	Flooding Resource Are	as, complete the following.			

- 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)
 - "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.

Community Name		
Vegetation Description		
Physical Description		

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover:	0 Trees (> 20')	90 Shrubs (< 20')	<5 Woody vines	5 Mosses	10 Herbaceous
	ecies that comprise nt species for the		f the vegetative of	over in each	n strata; "*" designates
Strata	Plant	Species	Strata		Plant Species
Shrub	Cleth	ra alnifolia (20%)	Shrub	Shrub Salix discolor (<	
Shrub	Vacci corym	nium 1bosum (25%)*	Herb		Osmundastrum cinnamomeum (10%)*
Shrub	Lyoni (35%)	a ligustrina	Herb		Solidago sp. (15%)*
Shrub	llex g	labra (20%)	Herb		Rubus hispidus (5%)
Shrub		odendron sum (5%)	Woody Vine		Smilax rotundifolia (<5%)
Shrub	Acer	rubrum (<5%)			

C. Inventory (Soils)

Whitman fine sandy loam, 0 to 3 percent slopes, extremely stony	Very poorly drained Drainage Class
Organic sapric (0"-2"), Mucky SiL w/gravel	12"
(2"-4"), LSa (4"-12")	Depth
0"	
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

Shrub thickets or streambeds with abundant earthworms (American woodcock)

Present

🛛 Absent

Absent

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

Absent

rt 2. Field D	ata Form (cont	inued)			
Number of trees	(live or dead) > 30" [OBH:	0		
Number (or dens	ity) of Standing Dead	d Trees (noter	tial for cavitie	s and nerches).	
	., .			• •	
6-12" dbh	12-18" dbh		0 18-24" dbh	>	24" dbh
Number of Tree (Cavities in trunks or I	imbs of:			
0					
	tree swallow, saw whet ov	wl, screech owl, b	luebird, other son	gbirds)	
0 12-18" diameter (e.g.	, hooded merganser, woo	d duck, common	goldeneye, mink)		
0	oded merganser, wood duo	ak common goldo		appear barrad owl r	nink raaaan fishar)
		ck, common golder	leye, common mei	ganser, barred owi, n	nink, faccoon, fisher)
Small mammal b	urrows				
Abundant	Prese	ent	🛛 Absent		
Cover/Perches/B	asking/Denning/Nes	ting Habitat			
🛛 Dense herba	ceous cover (voles,	small mamma	ls, amphibians	s & reptiles)	
Large woody	debris on the groun	d (small mam	mals, mink, an	nphibians & rept	iles)
Rocks, crevid	ces, logs, tree roots o	or hummocks	under water's	surface (turtles,	snakes, frogs)
	ces, fallen logs, overl ce (turtles, snakes, f				
Rock piles, c	revices, or hollow log	gs suitable for	•		
otter	🗌 mink [porcupine	bear	bobcat	turkey vult
	standing vegetation isher, flycatchers, ce			ng good visibility	of open water (e
Depressions that	may serve as seaso	onal (vernal/au	itumnal) pools		
	2	,			
•		t			
	Prese	ent	🛛 Absent		
·	Preser at least part o			ble for use by	
·	resent at least part o	of the growing	season, suital		ging, re-hydration)
Standing water p	resent at least part o	of the growing	season, suital	nphibians (forag	ging, re-hydration)

Present Absent

	bitat Prot Wildlife Habitat Ev		Guidance
	· · · · · ·	cribe and quantify	them on a separate sheet)
	flat rocks within a stream		salamanders and nesting habita
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky sala		beds (cover for stream
	Present	🛛 Absent	
Underwater banks of fir	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	oank 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 suital	ole for turtle nesting	9
	Present	🛛 Absent	
Wildlife dens/nests (if p	resent, describe & quant	ify them on the bac	ck 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

Bureau of Resource Protection - Wetlands Program

	Vildlife Habitat Prote pendix B: Detailed Wildlife Habitat Evalu		ce
Pa	art 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 flo green heron, black-crowned night heron, king rail, V		n (wood duck,
	Flooded > 5 cm	Present	🛛 Absent
	Flooded > 25 cm (pied-billed grebe)	Present	Absent
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, rec		
	Flooded > 5 cm	Present	🛛 Absent
	Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
	Cattail emergent wetland vegetation at least seasor	ally 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 sedg season (common snipe, spotted sandpiper, sedge v		during the growing
	Flooded > 5 cm	Present	🛛 Absent
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent
IV.	Landscape Context		
Α.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its
	Is the impact area part of an emergent marsh at least	1.0 acre in size? Ves	🛛 No
	(marsh and waterbirds)	2.0 acres in size?	🛛 No
		5.0 acres in size?	🛛 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed	Wildlife Habitat Evaluation
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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 o	f 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 a	ljacent 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8

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.

Project Name	
Acushnet, MA. Bordering Vegetated Wetland D48-CM27	
Please refer to breakdown of impacts below.	11/30/2021
Size of Area Being Impacted	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. Temporary (work pad)		3,262 sf		0.07 acre
2.		(0.07 acre)		
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

Sate mhy

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

M. Lamothe Typed or Printed Name Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

	Acushnet, MA	A		
	Project Location	(from NOI page 1)		
		getated Wetland D48, "D48-CM-27"		
	Impact Area (nur	nber/name)		
	1/29/2019			
		isit(s) and Data Collection		
	Partly sunny,	32 degrees F		
		ons During Site Visit (if snow cover, include dep	oth)	
	M. Lamothe			11/30/2021
	Person completir	ng form per 310 CMR 10.60(1)(b)		Date this form was completed
	The information	on on this data sheet is based on my o	observations unles	ss otherwise indicated
		In Sate		
	Signature			
	-			
II.	Site Descript	tion (complete A or B under Classif	ication - see instr	ructions for full description)
A.	Classification			
1.	For Wetland F	Resource Areas, complete the followir	ng:	
		Palustrine		-
	System:		Subsystem:	
		Scrub Shrub/Emergent	<u></u>	Broad-leaved
	Class:		Subclass:	Deciduous/Persistent
	Hydrology/Wa	ater Regime		
	Permane	ntly flooded	Saturated	
	Intermitte	ntly exposed	Temporarily	flooded
	Semi-per	manently flooded		y flooded
	Seasonal	ly flooded	Artificially flo	poded
2.	For Riverfront	t or Bordering Land Subject to Floodin	a Resource Areas	complete the following.
		restrial classification system such as o		
	a. "Classifica	tion of the Natural Communities of Massa MA DFW NHESP, Westborough, MA. July	chusetts (Draft)" by I	Patricia C. Swain and Jennifer 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.

Community Name		
Vegetation Description		
Physical Description		

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	<u>65</u> 20') Shrubs (< 20')	<5 Woody vines	<5 Mosses	35
		Trees (> 2	, , ,	•		Herbaceous
	Plant Lists (spec a dominant plan		omprise 10% or more of t for the strata):	the vegetative c	over in eacł	n strata; "*" designates
	Strata	Plant Species	Strata		Plant Species	
	Shrub		Spiraea tomentosa (15%)*	Herb		Solidago sp. (10%)
	Shrub		Salix discolor (35%)*	Herb		Dichanthelium
	Shrub		Swida sp. (15%)*	Shrub		<u>clandestinum (<5%)</u> Lyonia ligustrina (<5%)
	Herb		Juncus effusus (20%)*	Woody Vine		Smilax rotundifolia (<5%)
	Herb		Scirpus cyperinus (10%)			
	Herb		Carex sp. (15%)*			
C.	 C. Inventory (Soils) Whitman fine sandy loam, 0 to 3 percent slopes, extremely stony 			Very poorly d Drainage Class	rained	
	SaL w/gravels (0)"-6")		6"		
	Texture (upper part)		Depth			
	0" Depth to Water Tabl	e				
			raa (aammiata far ali raa			
III.	ппропант парт	iai realu	res (complete for all res	ource areas)		
	If the following hal	oitat chara	cteristics are present, descri	be & quantify ther	n on a separ	ate sheet & attach.
	Wildlife Food					
	Important Wetla	nd/Aquati	c Food Plants (smartwee	ds, pondweeds,	wild rice, b	ulrush, wild celery)
	Abundant		Present	🛛 Absent		
	Important Upland/Wetland Food Plants (hard mas			and fruit/berry p	oroducers)	
	Abundant		Present	Absent		
	Shrub thickets o	r streamb	eds with abundant earthv	vorms (America	n woodcock	x)
			Present	🛛 Absent		
	Shrub and/or he	rbaceous	vegetation suitable for ve	eery nesting		
			⊠ Present	Absent		

rt 2. Field Da	ata Form (cor	ntinued)			
Number of trees ((live or dead) > 30'	' DBH:	0		
Number (or densi	ty) of Standing De	ad Trees (note	ntial for cavities	and nerches).	
		au mees (pole			
6-12" dbh	12-18" dbh		0 18-24" dbh	> 24	4" dbh
Number of Tree C	Cavities in trunks o	r limbs of:			
0					
	ree swallow, saw whet	owl, screech owl,	bluebird, other song	gbirds)	
0 12-18" diameter (e.g.,	hooded merganser, we	ood duck, commor	n goldeneye, mink)		
0	oded merganser, wood o				ale recence ficher)
		duck, common golde	eneye, common mer	ganser, barred owi, mir	nk, raccoon, fisher)
Small mammal bu	urrows				
Abundant	🗌 Pre	esent	🛛 Absent		
Cover/Perches/Ba	asking/Denning/Ne	esting Habitat			
🛛 Dense herba	ceous cover (voles	s, small mamm	als, amphibians	& reptiles)	
Large woody	debris on the grou	ind (small mam	nmals, mink, am	phibians & reptile	es)
Rocks, crevic	es, logs, tree roots	s or hummocks	under water's	surface (turtles, s	nakes, frogs)
	es, fallen logs, ove ce (turtles, snakes,				
Rock piles, cr	revices, or hollow l	ogs suitable fo	r:		
otter	mink	porcupine	bear	bobcat	turkey vult
	standing vegetatio sher, flycatchers, d			g good visibility c	of open water (e
Depressions that	may serve as seas	sonal (vernal/a	utumnal) pools		
	Pre	esent	🛛 Absent		
Standing water pr	resent at least part	of the growing	season, suitab	le for use by	
Breeding amp	ohibians	× N	lon-breeding an	nphibians (foragir	ng, re-hydration)
□ -			oraging waterfo	wl	
Turtles			oraging wateric		

Present Absent

	bitat Prot Wildlife Habitat Ev		Guidance
	· · · · · ·	cribe and quantify	them on a separate sheet)
	flat rocks within a stream		salamanders and nesting habita
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky sala		beds (cover for stream
	Present	🛛 Absent	
Underwater banks of fir	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	oank 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 suital	ole for turtle nesting	9
	Present	🛛 Absent	
Wildlife dens/nests (if p	resent, describe & quant	ify them on the bac	ck 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

Bureau of Resource Protection - Wetlands Program

	Vildlife Habitat Protection Protection B: Detailed Wildlife Habitat Evalu		ce					
Pa	art 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 flo green heron, black-crowned night heron, king rail, V	oded during the growing seasor	n (wood duck,					
	Flooded > 5 cm							
	Flooded > 25 cm (pied-billed grebe)	Present	Absent					
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, rec	, , , , , , , , , , , , , , , , , , , ,	0					
	Flooded > 5 cm	Present	Absent					
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent					
	Cattail emergent wetland vegetation at least seasor	gent wetland vegetation at least seasonally flooded during the growing se						
	Flooded > 5 cm (marsh wren)	Present	Absent					
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent					
	Fine-leafed emergent vegetation (grasses and sedg season (common snipe, spotted sandpiper, sedge v		during the growing					
	Flooded > 5 cm	Present	Absent					
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent					
IV.	Landscape Context							
Α.	 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?	🛛 No					
	(marsh and waterbirds)	2.0 acres in size?	🛛 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation	
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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 o	f contiguous forested	I 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	y 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev.

Acushnet to Fall River Reliability Project	
Project Name	
Acushnet, MA. Bordering Vegetated Wetland D48-PP2	
Location	
Please refer to breakdown of temporary impacts below.	11/30/2021
Size of Area Being Impacted	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. Temporary (pull pad)		_ 14,800 sf (0.34	. <u></u>	0.34 acre
		acre)		
2.	. <u> </u>		. <u> </u>	
3.				
4.				
-				
5.				
6.				
7.				
<u>/.</u>				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Acushnet, MA		
Project Location (from NOI page 1)		
Bordering Vegetated Wetland D48-PP2		
Impact Area (number/name)		
1/29/2019		
Date(s) of Site Visit(s) and Data Collection		
Sunny, 33 degrees for temperature		
Weather Conditions During Site Visit (if snow cover, include depth)		
M. Lamothe	11/302021	
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed	

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

mhy date

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:	-
Class:	Scrub-Shrub	Subclass:	Broad-leaved Deciduous
Hydrology/Wa	ater Regime		
Permaner	ntly flooded	Saturated	
Intermitte	ntly exposed	Temporarily	flooded
Semi-peri	manently flooded		/ flooded
Seasonal	ly flooded	Artificially flo	oded
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)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover: Plant Lists (spe	0 Trees (> 20') cies that comprise	60 Shrubs (< 20') e 10% or more of t	5 Woody vines the vegetative cov	15 Mosses ver in each strata	20 Herbaceous ; "*" designates
a dominant plar	t species for the s	strata):	-		-
Strata	Plant S	Species	Strata	Plant	Species
Shrub Vaccinium corymbosum (55%)*		Shrub	Rosa multiflora (<5%)		
Shrub	——— Clethra al	nifolia (30%)*	Herb	Osmunda cinnamon	astrum neum (50%)*
Shrub	Shrub Spiraea alba (10%)		Herb	Solidago	o sp. (20%)
Shrub	Kalmia la (5%)	tifolia	Herb	Phragmit (20%)	es australis
Shrub	Salix sp. ((5%)	Herb	Andropo (10%)	ogon glomeratus
Shrub	Spiraea to	mentosa (<5%)	Herb	Carex sp	o. (5%)

C. Inventory (Soils)

Soil Survey Unit: Whitman fine sandy loam, 0 to 3 percent slopes, extremely stony	Very Poorly Drained Drainage Class
Oi 0"-3", MkSiL 3"-6", Fine Sand 6"-10"	10" Depth
O"	·

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



Wildlife Habitat Protection Guidance

Number of trees	s (live or dead) > 30" DBH:	0		
Number (or den	sity) of Standing Dead Trees	(potential for cavities	and perches):	
0 6-12" dbh	0 12-18" dbh	0 18-24" dbh	<u> </u>	4" dbh
Number of Tree	Cavities in trunks or limbs of:			
0				
6-12" diameter (e.g. 0	, tree swallow, saw whet owl, screec	n owl, bluebird, other song	birds)	
12-18" diameter (e.	g., hooded merganser, wood duck, co	ommon goldeneye, mink)		
0 >18" diameter (e.g., I	nooded merganser, wood duck, commo	n goldeneye, common merg	anser, barred owl, mi	nk, raccoon, fisher)
Small mammal	burrows			
Abundant	Present	🛛 Absent		
Cover/Perches/	Basking/Denning/Nesting Hat	bitat		
Dense herb	aceous cover (voles, small ma	ammals, amphibians	& reptiles)	
Large wood	y debris on the ground (small	mammals, mink, am	phibians & reptil	es)
Rocks, crev	ices, logs, tree roots or humm	ocks under water's s	urface (turtles, s	snakes, frogs)
	ices, fallen logs, overhanging ace (turtles, snakes, frogs, wa			
Rock piles,	crevices, or hollow logs suitat	ble for:		
otter	🗌 mink 🗌 porcu	pine 🗌 bear	bobcat	🗌 turkey vu
	d standing vegetation overhar fisher, flycatchers, cedar wax		g good visibility o	of open water (e
Depressions that	at may serve as seasonal (ver	nal/autumnal) pools		
	Present	🛛 Absent		
Standing water	present at least part of the gro	owing season, suitabl	e for use by	
Breeding ar	nphibians	☑ Non-breeding am	phibians (foragi	ng, re-hydratior
Turtles	[Foraging waterfor	wl	
	mucks or mats, moss-covered		gs, overhanging	or directly adja
		,		



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

art 2. Field Data F	orm (continued)		
Important habitat charac	teristics (if present, des	cribe and quantify t	hem on a separate sheet)
Medium to large (> 6"), f for spring & two-lined sa		n (cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on basing salamanders and nesting			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fine	e silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhanging	g banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (ba	ank swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open w	ater in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-d	rained, sandy soil suitat	ble for turtle nesting	
	Present	🛛 Absent	
Wildlife dens/nests (if pro	esent, describe & quant	ify them on the bac	k 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

art 2. Field Data Form (continued)	lation	
Project area is within:		
100' of beaver, mink or otter den, bank swallow	<i>r</i> 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 flo green heron, black-crowned night heron, king rail, N		on (wood duck,
Flooded > 5 cm	Present	Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, re		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	Absent
Cattail emergent wetland vegetation at least season	nally flooded during the growing	g season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
Fine-leafed emergent vegetation (grasses and sede season (common snipe, spotted sandpiper, sedge		l during the growing
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
Landscape Context		
Habitat Continuity (if present, describe the landsc importance for area-sensitive species)	ape context on a separate shee	et and its
Is the impact area part of an emergent marsh at least	1.0 acre in size? Ves	🛛 No
(marsh and waterbirds)	2.0 acres in size?	🛛 No
	5.0 acres in size?	🛛 No
	10.0 acres in size?	🖂 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

٩p	pendix B	: Detailed	Wildlife	Habitat	Evaluation
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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	f 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

- 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., purple loosestrife, *Phragmites*, glossy buckthorn)

Disturbance from roads or highways	🛛 Other human disturbance
------------------------------------	---------------------------

Γ	Is the site the only	resource area in	n 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev.

Acushnet to Fall River Reliability Project	
Project Name	
New Bedford, MA. Bordering Vegetated Wetland D44-PP	
Location	
Please refer to breakdown of temporary impacts below.	12/01/2021
Size of Area Being Impacted	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. Temporary (pull pad)		7,500 sf (0.17		0.17 acre
		acre)		
2.				
3.				
4.				
5				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

New Bedford, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D44-PP	
Impact Area (number/name)	
2/06/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 38 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy Lake

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:	<u>-</u>
Class:	Emergent	Subclass:	Persistent
Hydrology/Wa	ater Regime		
Permane	ntly flooded	Saturated	
Intermitte	ntly exposed	Temporarily	flooded
Semi-per	manently flooded		/ flooded
Seasonal	ly flooded	Artificially flo	oded
	t or Bordering Land Subject to Flooding restrial classification system such as o	•	· · ·

- 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)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

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Annendix	R٠	Detailed	Wildlife	Habitat	Evaluation
	_ .	Dotanoa		Indontat	Liadation

Part 2. Field Data Form (continued)

B. Inventory (Plant community) 25% cover of open water

	% Cover:	0	10	0	0	65
	Plant Lists (spec		(> 20') Shrubs (< 20') at comprise 10% or more of es for the strata):	Woody vines the vegetative	Moss cover in e	
	Strata		Plant Species	Strata		Plant Species
	Shrub		Spiraea tomentosa (10%)*	Herb		_ Juncus effusus (50%)*
	Shrub Shrub		Spiraea alba (<5%)	Herb		_ Scirpus cyperinus (30%)*
			Vaccinium corymbosum (<5%)	Herb		-
C.	Inventory (Soils))				
	Soil Survey Unit: Pipestone loamy sand, 0 to 3 percent slopes Oi/ Fine Sand 0"-3"; Fine Sand 3"-10" Texture (upper part) 0" Depth to Water Table		Poorly Drair Drainage Class 10" Depth			
11.			tures (complete for all res	source areas)		
	-		aracteristics are present, descr		em on a se	parate sheet & attach.
	Wildlife Food					
		nd/A qu	atic Food Plants (smartwee	da papdwaad	o wild ricc	bulruch wild colory)
		nu/Aqu			5, WIIU 1100	, buildsil, wild celery)
	Abundant		Present	🛛 Absent		
	Important Uplan	d/Wetla	and Food Plants (hard mast	and fruit/berry	producer	s)
	Abundant		Present	🛛 Absent		
	Shrub thickets o	or strea	mbeds with abundant earth	worms (Americ	an woodc	ock)
			Present	🛛 Absent		
	Shrub and/or he	rbaced	ous vegetation suitable for v	eery nesting		
			Present	Absent		



Wildlife Habitat Protection Guidance

INUITIDEL OF TLEES	s (live or dead) > 3	0" DBH:	0		
Number (or den	isity) of Standing D	ead Trees (pot	ential for cavities	and perches):	
0	0		0	C)
6-12" dbh	12-18" db	h	18-24" dbh	>	• 24" dbh
0 6-12" diameter (e.g. 0	e Cavities in trunks ., tree swallow, saw who	et owl, screech ow		birds)	
12-18" diameter (e.g	g., hooded merganser,	wood duck, commo	on goldeneye, mink)		
	hooded merganser, wood	duck, common gol	deneye, common merg	anser, barred owl,	mink, raccoon, fisher)
Small mammal I	burrows				
Abundant	ΓP	resent	🖂 Absent		
			_		
Cover/Perches/I	Basking/Denning/N	lesting Habitat			
Dense herb	aceous cover (vole	es, small mamn	nals, amphibians	& reptiles)	
Large wood	ly debris on the gro	ound (small ma	mmals, mink, am	phibians & rep	tiles)
Rocks, crev	vices, logs, tree roo	ts or hummock	s under water's s	surface (turtles	, snakes, frogs)
	vices, fallen logs, ov ace (turtles, snake		nches or hummo g birds, wood due		
water's surfa					
_	crevices, or hollow	logs suitable f	or:		
_		logs suitable f		bobcat	turkey v
 Rock piles, otter Live or dead 	crevices, or hollow	porcupine	e 🗌 bear g water or offerin		
 Rock piles, a otter Live or dead osprey, king 	crevices, or hollow	porcupine ion overhanging , cedar waxwin	e D bear g water or offering gs)		
 Rock piles, a otter Live or dead osprey, king 	crevices, or hollow mink d standing vegetati gfisher, flycatchers at may serve as se	porcupine ion overhanging , cedar waxwin	e D bear g water or offering gs)		
 Rock piles, a otter Live or dead osprey, king Depressions that 	crevices, or hollow mink d standing vegetati gfisher, flycatchers at may serve as se	porcupine ion overhanging , cedar waxwin asonal (vernal/ resent	e 🗌 bear g water or offering gs) autumnal) pools 🖾 Absent	g good visibility	
 Rock piles, otter Live or dead osprey, king Depressions that 	crevices, or hollow mink d standing vegetati gfisher, flycatchers, at may serve as se Pr present at least pa	porcupine ion overhanging , cedar waxwin asonal (vernal/ resent art of the growin	e 🗌 bear g water or offering gs) autumnal) pools 🖾 Absent	g good visibility le for use by	y of open water



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

art 2. Field Data F	orm (continued)		
Important habitat charac	teristics (if present, des	cribe and quantify t	hem on a separate sheet)
Medium to large (> 6"), f for spring & two-lined sa		n (cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on basing salamanders and nesting			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fine	e silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhanging	g banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (ba	ank swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open w	ater in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-d	rained, sandy soil suitat	ble for turtle nesting	
	Present	🛛 Absent	
Wildlife dens/nests (if pre	esent, describe & quant	ify them on the bac	k 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



ppendix B: Detailed Wildlife Habitat Ev Part 2. Field Data Form (continued)	aluation	
Project area is within:		
100' of beaver, mink or otter den, bank swa	llow 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 & quar	ntify them on a separate sheet)	
Emergent wetland vegetation at least seasonall green heron, black-crowned night heron, king ra		on (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least (mallard, American bittern, sora, common snipe		
Flooded > 5 cm	☑ Present	Absent
Flooded > 25 cm (least bittern, common moorhe	en)	🛛 Absent
Cattail emergent wetland vegetation at least sea	asonally flooded during the growing	g season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorh	en) 🗌 Present	🛛 Absent
Fine-leafed emergent vegetation (grasses and s season (common snipe, spotted sandpiper, sed		during the growin
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	en)	🛛 Absent
/. Landscape Context		
 Habitat Continuity (if present, describe the lan importance for area-sensitive species) 	dscape context on a separate shee	et and its
Is the impact area part of an emergent marsh at leas	t 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?	🖂 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

4p	pendix B	3: Detailed	Wildlife Habitat	Evaluation
אר	pendix E	. Detunea	Wham's Hasitat	LValuation

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	f 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

- 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
E 11001100	or orgrinitourit	onionnioun	oomannination

- Evidence of significant levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev

 Acushnet to Fall River Reliability Project

 Project Name
 New Bedford, MA. Bordering Vegetated Wetland D44-CM 38

 Location
 Image: Colspan="2">Please refer to breakdown of impacts below.

 Size of Area Being Impacted
 12/01/2021

 Date
 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. Permanent (structure footprint)		151 <u>sf (0.003 acre)</u>		0.003 acre
2. Temporary (access)		_ 4,525 sf (0.10 acre)		0.10 acre
3. Temporary (work pad)		7,837 sf (0.18 acre)		0.18 acre
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

New Bedford, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D44-CM 38	
Impact Area (number/name)	
2/06/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 38 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy date

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:	-
Class:	Scrub-Shrub	Subclass:	Broad-leaved Deciduous
Hydrology/W	ater Regime		
Permane	ntly flooded	Saturated	
	ently exposed	Temporarily	flooded
Semi-per	manently flooded		/ flooded
🗌 Seasona	lly flooded	Artificially flo	oded
	t or Bordering Land Subject to Flooding restrial classification system such as o		

- 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)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

		0	05	0	0	45	
	% Cover:	U Trees (> 20')	85 Shrubs (< 20')	0 Woody vines	0 Mosses	<u>15</u> Herbaceous	
	Plant Lists (spec a dominant plant			of the vegetative cover in each strata; "*" designates			
	Strata	Plant	Species	Strata	Plar	nt Species	
	Shrub	Vacciniu (50%	m corymbosum)*	Shrub	Morella (<5%)	caroliniensis	
	Shrub	—— Lyonia I	igustrina (20%)*	Herb	Solildag	go sp (25%)*	
	Shrub	—— Salix sp	o. (5%)	Herb	Grass s	p. (10%)*	
	Shrub	—— Spiraea	tomentosa (5%)	Herb	Juncus	effusus (5%)	
	Shrub	Frangula	a alnus. (<5%)	Herb	Rub	us hispidus (5%)	
	Shrub	Quercus (<5%)	ilicifolia				
C.	Inventory (Soils)						
	Soil Survey Unit: Ridgebury fine sandy loam, 0 to 3 percent slopes, extremely stony			Poorly Drained Drainage Class	t		
			Frozen soils Depth				
III.	Important Habit	at Features (c	omplete for all rea	source areas)			
	If the following hab	oitat characteristi	cs are present, descr	ribe & quantify them	n on a separate sh	eet & attach.	
Wildlife Food Important Wetland/Aquatic Food Plants (smartweeds, pondweeds, wild rice, bulrush, wild celery)							
						n, wild celery)	
	Abundant		Present	🛛 Absent			
	Important Upland	d/Wetland Food	l Plants (hard mas	t and fruit/berry p	roducers)		

Shrub thickets or streambeds with abundant earthworms (American woodcock)

Present

Present

🛛 Absent

Absent

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

Absent

Abundant



Number of trees	(live or dead) > 30" DBH:	0		
Number of trees	live of dead) > 50 DBH.			
Number (or densi	ity) of Standing Dead Trees	(potential for cavities	and perches):	
0 6-12" dbh	0	0 18-24" dbh	<u> </u>	24" dbh
	Cavities in trunks or limbs of		>2	
0 6-12" diameter (e.g., t 0	ree swallow, saw whet owl, screec	h owl, bluebird, other songt	pirds)	
12-18" diameter (e.g., 0	hooded merganser, wood duck, co	ommon goldeneye, mink)		
	oded merganser, wood duck, commo	n goldeneye, common merga	anser, barred owl, m	ink, raccoon, fisher)
Small mammal be	urrows			
Abundant	Present	🛛 Absent		
Cover/Perches/B	asking/Denning/Nesting Hat	pitat		
Dense herba	ceous cover (voles, small m	ammals, amphibians	& reptiles)	
Large woody	debris on the ground (small	mammals, mink, amp	phibians & repti	les)
Rocks, crevic	es, logs, tree roots or humm	nocks under water's s	urface (turtles,	snakes, frogs)
	es, fallen logs, overhanging ce (turtles, snakes, frogs, wa			
Rock piles, ci	revices, or hollow logs suital	ble for:		
otter	mink porcu	upine 🗌 bear	bobcat	turkey vu
	standing vegetation overhar sher, flycatchers, cedar way		good visibility	of open water (
Depressions that	may serve as seasonal (ver	nal/autumnal) pools		
	Present	🛛 Absent		
Standing water p	resent at least part of the gro	owing season, suitable	e for use by	
Breeding am	phibians	Non-breeding am	phibians (forag	ing, re-hydratio
Turtles		Foraging waterfor	vl	
	nucks or mats, moss-covere ng water in spring (four-toec		js, overhanginç	g or directly adj
•	Present	Absent		



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

art 2. Field Data F	orm (continued)		
Important habitat charac	teristics (if present, des	cribe and quantify t	hem on a separate sheet)
Medium to large (> 6"), f for spring & two-lined sa		n (cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on basing salamanders and nesting			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fine	e silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhanging	g banks (small mammals	s, mink, weasels)	
	Present	Absent	
Vertical sandy banks (ba	ank swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open w	ater in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-d	rained, sandy soil suitab	ble for turtle nesting	I
	Present	🛛 Absent	
Wildlife dens/nests (if pro	esent, describe & quant	ify them on the bac	k 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



ppendix B: Detailed Wildlife Habitat Eva	aluation	
Part 2. Field Data Form (continued)		
Project area is within:		
100' of beaver, mink or otter den, bank swal	llow 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 & quan	ntify them on a separate sheet)	
Emergent wetland vegetation at least seasonally green heron, black-crowned night heron, king ra		on (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least (mallard, American bittern, sora, common snipe,		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	en) Present	🛛 Absent
Cattail emergent wetland vegetation at least sea	asonally flooded during the growing	j season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	en) 🗌 Present	🛛 Absent
Fine-leafed emergent vegetation (grasses and s season (common snipe, spotted sandpiper, sede		during the growing
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	en) Present	Absent
. Landscape Context		
Habitat Continuity (if present, describe the land importance for area-sensitive species)	dscape context on a separate shee	et and its
Is the impact area part of an emergent marsh at least	1.0 acre in size?	🖂 No
(marsh and waterbirds)	2.0 acres in size?	🛛 No
	5.0 acres in size?	🖂 No
	10.0 acres in size?	🖂 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

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Appendix B:	Detailed	wiidlife	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	f 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

- 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
E 11001100	or orgrinitourit	onionnioun	oomannination

- Evidence of significant levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

Disturbance from roads or highways	🛛 Other human disturbance
------------------------------------	---------------------------

Is the site the only	y resource area in	the vicinity o	f 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev

 Acushnet to Fall River Reliability Project

 Project Name
 Project Name

 New Bedford, MA. Bordering Vegetated Wetland D44-CM 37
 Image: Colspan="2">Location

 Please refer to breakdown of impacts below.
 12/01/2021

 Size of Area Being Impacted
 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. Permanent (structure footprint)		51 sf (0.001 acre)		0.001 acre
2. Temporary (access)		459 sf (0.01 acre)		0.01 acre
3. Temporary (work pads)		9,949 sf (0.23 acre)		0.23 acre
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))

Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

New Bedford, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D44-CM 37	
Impact Area (number/name)	
2/06/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 38 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy Lake

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:	-
Class:	Emergent	Subclass:	Persistent
Hydrology/Wa	ater Regime		
Permane	ntly flooded	Saturated	
Intermitte	ntly exposed	Temporarily	flooded
Semi-per	manently flooded		/ flooded
🛛 Seasonal	ly flooded	Artificially flo	oded
	t or Bordering Land Subject to Flooding		

- 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. (<u>Department of Fish & Game Website</u>)
- "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.

Community Name		
Vegetation Description		
Physical Description		
Vegetation Description Physical Description	 	

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation
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Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	<u>5</u> Shrubs (< 20')	0	10	90 Herbaceous
			prise 10% or more of	Woody vines the vegetative of	Voody vines Mosses H vegetative cover in each strata; "*" (
	Strata	a Plant Species		Strata		Plant Species
	Shrub	Spira	ea tomentosa (5%)*	Herb		Juncus effusus (65%)*
	Shrub	—— Salix	sp. (<5%)	Herb		Scirpus cyperinus (35%)*
C.	Inventory (Soils)					
	Soil Survey Unit: Pipestone loamy sand, 0 to 3 percent slopes Oi/ Fine Sand 0"-3"; Fine Sand 3"-10" Texture (upper part) 0" Depth to Water Table		Poorly Drain Drainage Class 10" Depth	ed		
III.	Important Habita	t Features	complete for all res	source areas)		
	If the following habit	at characte	ristics are present, descr	ibe & quantify the	em on a sep	oarate sheet & attach.
	Wildlife Food					
	Important Wetland	d/Aquatic F	ood Plants (smartwee	eds, 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)						ock)
			Present	🛛 Absent		
	Shrub and/or herb	aceous ve	getation suitable for v	eery nesting		
			Present	🛛 Absent		



12-18" diameter (e.g., hooded merganser, wood duck, common goldeneye, mink) 0 >18" diameter (e.g., hooded merganser, wood duck, common goldeneye, common merganser, barred owl, mink, raccoon, fisher) Small mammal burrows Abundant Present Xabsent 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:	Number of tr	ees (live or dead) >	30" DBH:	0		
Number of Tree Cavities in trunks or limbs of: 0 6-12" diameter (e.g., tree swallow, saw whet owl, screech owl, bluebird, other songbirds) 0 12-18" diameter (e.g., hooded merganser, wood duck, common goldeneye, mink) 0 >18" diameter (e.g., hooded merganser, wood duck, common goldeneye, common merganser, barred owl, mink, raccoon, fisher) Small mammal burrows Abundant Abundant Present Abundant Present 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 voles offering good visibility of open water (osprey, kingfisher, flycatchers, cedar waxwings) persent Absent 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 Preseint Absent	Number (or	density) of Standing	Dead Trees (pote	ntial for cavities	and perches):	
Number of Tree Cavities in trunks or limbs of: 0 6-12" diameter (e.g., tree swallow, saw whet owl, screech owl, bluebird, other songbirds) 0 12-18" diameter (e.g., hooded merganser, wood duck, common goldeneye, mink) 0 >18" diameter (e.g., hooded merganser, wood duck, common goldeneye, common merganser, barred owl, mink, raccoon, fisher) Small mammal burrows Abundant Abundant Present Abundant Present 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 voles offering good visibility of open water (osprey, kingfisher, flycatchers, cedar waxwings) persent Absent 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 Preseint Absent		0 12-18"	dbh	0 18-24" dbh	0 > 24	" dbh
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	Turtles		🗆 F	oraging waterfov	vl	
					gs, overhanging	or directly adj



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

art 2.	Field Data For	m (continued)			
<u>Import</u>	ant habitat character	istics (if present, describ	e and	quantify the	em on a separate sheet)
	m to large (> 6"), flat ing & two-lined salam		over fo	or stream sa	lamanders and nesting habitat
		Present	X A	Absent	
	5	s or within exposed port abitat for dusky salaman		f streambed	ds (cover for stream
		Present	X A	Absent	
Under	water banks of fine si	lt and/or clay (beaver, m	uskrat	t, otter)	
		Present	X A	Absent	
Under	cut or overhanging ba	anks (small mammals, m	iink, w	easels)	
		Present	X A	Absent	
Vertica	al sandy banks (bank	swallow, kingfisher)			
		Present	X A	Absent	
Areas	of ice-free open wate	er in winter			
		Present	X A	Absent	
Mud fl	ats				
		Present	A 🛛	Absent	
Expos	ed areas of well-drair	ned, sandy soil suitable f	or turtl	le nesting	
		Present	X A	Absent	
Wildlif	e dens/nests (if prese	ent, describe & quantify t	hem o	n the back	of this sheet)
Turtle	nesting sites				
		Present	A	Absent	
Bank	swallow colony				
		Present	X A	Absent	
Nest(s) present of	Bald Eagle		Dsprey	Great Blue Heron
Den(s) present of	Otter	🗌 N	/link	Beaver



prendix B: Detailed Wildlife Habitat Evalu		
Project area is within:		
	a clony or furthe posting area	
100' of beaver, mink or otter den, bank swallow	colony of lutile nesling 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 flo green heron, black-crowned night heron, king rail, V		on (wood duck,
Flooded > 5 cm	Present	Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, red		
Flooded > 5 cm	Present	Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	Absent
Cattail emergent wetland vegetation at least seasor	nally flooded during the growing	g season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
Fine-leafed emergent vegetation (grasses and sedge season (common snipe, spotted sandpiper, sedge v		l during the growing
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	Absent
Landscape Context		
Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate shee	et and its
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? Ves	🖂 No
	5.0 acres in size? Ves	🛛 No
	10.0 acres in size?	🖂 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

٩p	pendix B	: Detailed	Wildlife	Habitat	Evaluation
אר	PCHAIX D	. Detuneu	Winding	Tastat	LValuation

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	f 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

- 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
= 11001100	or orgrinitourit	onionnioun	oomannination

- Evidence of significant levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

Disturbance from roads or highways	🛛 Other human disturbance
------------------------------------	---------------------------

Is the site the only	y resource area in	the vicinity o	f 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev

Acushnet to Fall River Reliability Project	
Project Name	
New Bedford, MA. Bordering Vegetated Wetland D44-CM 36	
Location	
Please refer to breakdown of impacts below.	12/01/2021
Size of Area Being Impacted	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. Permanent (structure footprint)		25 sf (0.001 acre)		0.001 acre
2. Temporary (access)		373 sf (0.009 acre)		0.009 acre
 Temporary (work pads) 4. 		9,898 sf (0.23 acre)		0.23 acre
5.				
6.				
7.		<u></u>		

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

New Bedford, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D44-CM 36	
Impact Area (number/name)	
2/06/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 38 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mha Satre

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:	-	
Class:	Scrub-Shrub	Subclass:	Broad-leaved Deciduous	
Hydrology/W	/ater Regime			
Permane	ently flooded	Saturated		
Intermittently exposed		Temporarily flooded		
Semi-permanently flooded		Intermittently flooded		
🛛 Seasona	ally flooded	Artificially flo	oded	
For Riverfront or Bordering Land Subject to Flooding Resource Areas, complete the following.				

- 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)
 - "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.

Community Name		
Vegetation Description		
Physical Description		-



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover:	0 Trees (> 20')	70 Shrubs (< 20')	<5 Woody vines	10 Mosses	25 Herbaceous
	cies that comprise t species for the	e 10% or more of	f the vegetative co	over in each	strata; "*" designates
Strata	Plant S	Species	Strata Plant Specie		Plant Species
Shrub	Swida am	omum (35%)*	Herb	Ju	ncus effusus (45%)*
Shrub	Viburnum (15%)*	dentatum.	Herb	So	lidago sp. (25%)*
Shrub	Spiraea (10%)	tomentosa	Herb	Gr	ass sp. (10%)
Shrub	()	a alba (5%)	Herb	Ru	ibus hispidus (5%)
Shrub	llex verti	cillata (<5%)	Herb	Or	oclea sensibilis (<5%)
			Woody Vine	Sn	nilax rotundifolia (<5%)
Inventory (Soils)					
percent slopes Oi/ Fine Sand 0' Texture (upper p 0'' Depth to Water Tabl		"-10"	Poorly Drained Drainage Class 10" Depth	d	
-	,	•	,		

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

Wildlife Food

C.

III.

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

nt 🗌 Absent

Shrub thickets or streambeds with abundant earthworms (American woodcock)

Present

🛛 Absent

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

Absent



Number of trees (live or dead) > 3	0" DBH:	0		
Number (or densi	tv) of Standing [Dead Trees (pote	ntial for cavities	and perches):	
0	.,			. ,	
6-12" dbh	0 12-18" dt	bh	0 18-24" dbh	> 2	4" dbh
Number of Tree C	Cavities in trunks	or limbs of:			
0 6-12" diameter (e.g., t				- :	
0	ree swallow, saw wr	iet owi, screech owi, i	biuebira, other songi	oiras)	
12-18" diameter (e.g.,	hooded merganser,	wood duck, commor	n goldeneye, mink)		
0 >18" diameter (e.g., hoo	oded merganser, woo	d duck, common golde	eneye, common merg	anser, barred owl, mi	nk, raccoon, fisher)
Small mammal bu	irrows				
Abundant	ΠP	resent	🖂 Absent		
_					
Cover/Perches/Ba	asking/Denning/I	Nesting Habitat			
Dense herbad	ceous cover (vol	es, small mamma	als, amphibians	& reptiles)	
Large woody	debris on the gr	ound (small marr	imals, mink, am	ohibians & reptil	es)
Rocks, crevic	es, logs, tree roo	ots or hummocks	under water's s	urface (turtles, s	snakes, frogs)
		overhanging bran es, frogs, wading			
Rock piles, cr	evices, or hollov	v logs suitable for	r:		
otter	mink	porcupine	bear	bobcat	turkey vultu
		ion overhanging , cedar waxwing		g good visibility o	of open water (e.g
Depressions that	may serve as se	easonal (vernal/a	utumnal) pools		
	□ P	resent	🛛 Absent		
Standing water pr	esent at least pa	art of the growing	season, suitabl	e for use by	
Breeding amp	ohibians	N	on-breeding am	phibians (foragii	ng, re-hydration)
Turtles		🗌 F	oraging waterfov	wl	
Sphagnum humm to pools of standii				gs, overhanging	or directly adjace
		resent	Absent		



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

art 2. Field Data F		cribe and quantify t	hem on a separate sheet)
	at rocks within a stream		salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on ba salamanders and nesting			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fine	e silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhanging	banks (small mammals	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (ba	nk swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open w	ater in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-dr	ained, sandy soil suitat	ble for turtle nesting	
	Present	🛛 Absent	
Wildlife dens/nests (if pre	esent, describe & quant	ify them on the bac	<u>k of this sheet)</u>
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



ppendix B: Detailed Wildlife Habitat Eva	aluation	
Part 2. Field Data Form (continued)		
Project area is within:		
100' of beaver, mink or otter den, bank swal	llow 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 & quan	ntify them on a separate sheet)	
Emergent wetland vegetation at least seasonally green heron, black-crowned night heron, king ra		on (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least (mallard, American bittern, sora, common snipe,		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	en) Present	🛛 Absent
Cattail emergent wetland vegetation at least sea	asonally flooded during the growing	j season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	en) 🗌 Present	🛛 Absent
Fine-leafed emergent vegetation (grasses and s season (common snipe, spotted sandpiper, sede		during the growing
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	en) Present	Absent
. Landscape Context		
Habitat Continuity (if present, describe the land importance for area-sensitive species)	dscape context on a separate shee	et and its
Is the impact area part of an emergent marsh at least	1.0 acre in size?	🖂 No
(marsh and waterbirds)	2.0 acres in size?	🛛 No
	5.0 acres in size?	🖂 No
	10.0 acres in size?	🖂 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

	B - (- 11 - 1	VALUE C.	11-1-4-4	
Appendix B:	Detailed	wiidlife	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	f 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

- 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
= 11001100	or orgrinitourit	onionnioun	oomannination

- Evidence of significant levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

Disturbance from roads or highways	🛛 Other human disturbance
------------------------------------	---------------------------

Is the site the only	y resource area in	the vicinity o	f 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev

Acushnet to Fall River Reliability Project	
Project Name	
New Bedford, MA. Bordering Vegetated Wetland D42-CM 39	
Location	
Please refer to breakdown of impacts below.	12/01/2021
Size of Area Being Impacted	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. Permanent (structure footprint)		79 <u>sf (0.002 acre)</u>		0.002 acre
2. Temporary (access and work pads)		22,169 sf (0.51 acre)		0.51 acre
3.				
4.				
5				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

New Bedford, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D42-CM 39	
Impact Area (number/name)	
2/06/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 38 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mha Satre

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:	-
Class:	Emergent	Subclass:	Persistent
Hydrology/Wa	ater Regime		
Permaner	ntly flooded	Saturated	
Intermitte	ntly exposed	Temporarily	flooded
Semi-peri	manently flooded	Intermittently	flooded
🛛 Seasonal	ly flooded	Artificially flo	oded
For Riverfront	or Bordering Land Subject to Flooding	g Resource Areas	, complete the following.

- 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)
 - "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.

Community Name		
Vegetation Description		
Physical Description		



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	<5% Shrubs (< 20')	0	0	85
		Trees (> 20')	· · · ·	Woody vines	Mosse	
	Plant Lists (spec a dominant plan			the vegetative c	over in ea	ch strata; "*" designates
	Strata	Plant	Species	Strata		Plant Species
	Shrub	Vacciniun (<5%)	n corymbosum	Herb		Typha latifolia (65%)*
				Herb		Phragmites australis (30%)*
				Herb		Lythrum salicaria (10%)
				Herb		Grass sp. (10%)
				Herb		Scirpus cyperinus (<5%)
C.	Inventory (Soils)					
	Soil Survey Unit: Swansea muck, 0 to 1 percent slopes		Very Poorly Drainage Class	Drained		
	Oi 0"-3"; Oa 3"-5			10"		
	Texture (upper p 2" Pockets of	standing water 8	5"-10"	Depth		
	Depth to Water Tabl					
III.	Important Habi	tat Features (co	mplete for all re	source areas)		
	If the following hal	pitat characteristics	s are present, desc	ribe & quantify the	m on a sep	arate sheet & attach.
	Wildlife Food					
	Important Wetla	nd/Aquatic Food	Plants (smartwee	eds, pondweeds,	, wild rice,	bulrush, wild celery)
	Abundant		Present	🛛 Absent		
	Important Uplan	d/Wetland Food	Plants (hard mas	t and fruit/berry p	oroducers))
	Abundant		Present	Absent		
	Shrub thickets o	r streambeds wit	h abundant earth	worms (America	n woodco	ck)
			Present	🛛 Absent		
	Shrub and/or he	rbaceous vegeta	tion suitable for v	eery nesting		
			Present	🛛 Absent		



Wildlife Habitat Protection Guidance

Nur	mber of trees	(live or dead) >	30" DBH:	0		
Nur	mber (or dens	sity) of Standing	Dead Trees (pote	ential for cavities	and perches):	
4		0		0	0	I
6-12	2" dbh	12-18"	dbh	18-24" dbh	>	24" dbh
Nur	mber of Tree	Cavities in trunk	s or limbs of:			
0						
	2" diameter (e.g.,	tree swallow, saw v	whet owl, screech owl,	bluebird, other song	birds)	
0		handed an energy of				
12-1 0	18" diameter (e.g.	., nooded merganse	r, wood duck, commo	in goldeneye, mink)		
	' diameter (e.g., ho	ooded merganser, wo	ood duck, common gold	leneye, common merg	anser, barred owl, i	mink, raccoon, fisher)
Sm	all mammal b	urrows				
0						
	Abundant		Present	🛛 Absent		
Car	vor/Doroboo/R	Pooleing/Donning	/Neating Habitat			
CO	ver/Perches/E	asking/Denning	/Nesting Habitat			
\boxtimes	Dense herba	aceous cover (vo	oles, small mamm	als, amphibians	& reptiles)	
			. /			<i></i>
	Large woody	debris on the g	round (small mar	nmais, mink, amj	phibians & rep	tiles)
	Rocks, crevie	ces, logs, tree re	oots or hummock	s under water's s	urface (turtles,	, snakes, frogs)
	Deelse erevi	ces fallen logs	overhanging brar	nches or hummo	cks at. or withi	n 1m above the
	ROCKS. CIEVI					
		ice (turtles, snał	kes, nogs, waung	j bilas, wood dud		on)
	water's surfa	ice (turtles, snal			x, minx, 10000	on)
	water's surfa	ice (turtles, snal	ow logs suitable fo	or:	_	
	water's surfa	ice (turtles, snal		or:	bobcat	on)
	water's surfa Rock piles, c otter Live or dead	ice (turtles, snał revices, or hollo mink standing vegeta	ow logs suitable fo	or: bear water or offering	Dobcat	turkey vi
	water's surfa Rock piles, c otter Live or dead	ice (turtles, snał revices, or hollo mink standing vegeta	ow logs suitable fo	or: bear water or offering	Dobcat	turkey vi
	water's surfa Rock piles, c otter Live or dead osprey, kingt	tice (turtles, snak revices, or hollo mink standing vegeta fisher, flycatche	ow logs suitable fo	or: bear water or offering gs)	Dobcat	turkey vi
	water's surfa Rock piles, c otter Live or dead osprey, kingt	trevices, or hollo mink standing vegeta fisher, flycatche	ow logs suitable fo porcupine ation overhanging rs, cedar waxwing seasonal (vernal/a	pr: bear water or offering gs) autumnal) pools	Dobcat	turkey vi
Der	water's surfa Rock piles, c otter Live or dead osprey, kingt	trevices, or hollo mink standing vegeta fisher, flycatche	ow logs suitable fo porcupine ation overhanging rs, cedar waxwing	or: bear water or offering gs)	Dobcat	turkey v
	water's surfa Rock piles, c otter Live or dead osprey, kingf pressions that	trevices, or hollo mink standing vegeta fisher, flycatcher t may serve as s	ow logs suitable fo porcupine ation overhanging rs, cedar waxwing seasonal (vernal/a	or: bear water or offering gs) autumnal) pools Absent	bobcat g good visibility	turkey vi
	water's surfa Rock piles, c otter Live or dead osprey, kingf pressions that	trevices, or hollo mink standing vegeta fisher, flycatcher t may serve as s	ow logs suitable for porcupine ation overhanging rs, cedar waxwing seasonal (vernal/a Present part of the growing	or: bear water or offering s) autumnal) pools Absent g season, suitabl	bobcat g good visibility e for use by	turkey vi
	water's surfa Rock piles, c otter Live or dead osprey, kingf pressions that	trevices, or hollo mink standing vegeta fisher, flycatcher t may serve as s	ow logs suitable for porcupine ation overhanging rs, cedar waxwing seasonal (vernal/a Present part of the growing	or: bear water or offering gs) autumnal) pools Absent	bobcat g good visibility e for use by	turkey vi
	water's surfa Rock piles, c otter Live or dead osprey, kingf pressions that	trevices, or hollo mink standing vegeta fisher, flycatcher t may serve as s	ow logs suitable for porcupine ation overhanging rs, cedar waxwing seasonal (vernal/a Present part of the growin	or: bear water or offering s) autumnal) pools Absent g season, suitabl	bobcat g good visibility e for use by phibians (forag	turkey vi

Present Absent



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

Important habitat charac	teristics (if present, des	cribe and quantify t	hem on a separate sheet)
Medium to large (> 6"), f for spring & two-lined sa		n (cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on basing salamanders and nesting			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fine	e silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhanging	g banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (ba	ank swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open w	rater in winter		
	⊠ Present	Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-d	rained, sandy soil suitat	ble for turtle nesting	I
	Present	🛛 Absent	
Wildlife dens/nests (if pro	esent, describe & quant	ify them on the bac	k 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



Appendix B: Detailed Wildlife Habitat E Part 2. Field Data Form (continued)	valuation	
Project area is within:		
100' of beaver, mink or otter den, bank sw	allow 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 & qua	antify them on a separate sheet)	
Emergent wetland vegetation at least seasona green heron, black-crowned night heron, king	lly flooded during the growing season (wood o	duck,
Flooded > 5 cm	☐ Present ☐ Ab	osent
Flooded > 25 cm (pied-billed grebe)	Present Ab	osent
Persistent emergent wetland vegetation at leas (mallard, American bittern, sora, common snip	, , , , , ,	
Flooded > 5 cm	Present DAb	osent
Flooded > 25 cm (least bittern, common moorh	nen) 🛛 Present 🗌 Ab	osent
Cattail emergent wetland vegetation at least se	easonally flooded during the growing season	
Flooded > 5 cm (marsh wren)	🛛 Present 🗌 Ab	osent
Flooded > 25 cm (least bittern, common moorf	nen) 🛛 Present 🗌 Ab	osent
Fine-leafed emergent vegetation (grasses and season (common snipe, spotted sandpiper, se		e growing
Flooded > 5 cm	Present Ab	osent
Flooded > 25 cm (least bittern, common moorh	nen) 🗌 Present 🖂 Ab	osent
/. Landscape Context		
 Habitat Continuity (if present, describe the la importance for area-sensitive species) 	ndscape context on a separate sheet and its	
Is the impact area part of an emergent marsh at lea	st 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

٩p	pendix B	: Detailed	Wildlife	Habitat	Evaluation
אר	PCHAIX D	. Detuneu	Winding	Tastat	LValuation

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., purple loosestrife, *Phragmites*, glossy buckthorn)
- 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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.



Acushnet to Fall River Reliability Project	
Project Name	
New Bedford, MA. Bordering Vegetated Wetland D41 and D40-CM 41	
Location	
Please refer to breakdown of impacts below.	12/01/2021
Size of Area Being Impacted	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. Permanent (structure footprint) in D41		<u>15 sf</u>		15 sf
2. Temporary (work pads) in D41		4,657 sf (0.11 acre)		0.11 acre
3. Temporary (work pads) in D40		1,434 sf (0.03 acre)		0.03 acre
<u>4.</u> 5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

New Bedford, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D41 and D40-CM 41	
Impact Area (number/name)	
2/06/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 38 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy date

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:		
Class:	Scrub-Shrub	Subclass:	Broad-leaved Deciduous	
Hydrology/Wa	ter Regime			
Permaner	ntly flooded	Saturated		
Intermittently exposed		Temporarily flooded		
Semi-perr	manently flooded		ly flooded	
Seasonall	y flooded	Artificially fl	ooded	
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)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover:	0 Trees (> 20')	75% Shrubs (< 20')	5 Woody vines	0 Mosses	<u>20</u> Herbaceous
	ecies that comprise ant species for the s		the vegetative co	over in each stra	ata; "*" designates
Strata	Plant S	species	Strata	Pla	nt Species
Shrub	Spiraea al	ba (35%)*	Herb	Onocl (25%)*	ea sensibilis
Shrub	Spiraea to (15%)*	omentosa	Herb	Rubus	s hispidus (20%)*
Shrub	Clethra alr	nifolia (10%)	Herb	——— Juncu	s effusus (5%)
Shrub	llex vertic	illata (<5%)	Herb	Thelyp (<5%)	teris palustris
Shrub	Acer rubr	rum (<5%)	Herb	Scirpu	ıs cyperinus (<5%)
Shrub	Sal <u>ix</u> sp. (•	<5%)	Woody Vines	Smilax	rotundifolia (5%)*
Inventory (Soil	s)				
	nit: Woodbridge fine		Moderately W Drainage Class	ell-Drained	
Frozen Soils			Frozen Soils Depth		
Standing Wate					
Important Hal	oitat Features (cor	nplete for all res	source areas)		
-					

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

Wildlife Food

C.

III.

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



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation

Number of trees (liv	/e or dead) > 30"	DBH:	0		
Number (or density) of Standing Dea	d Trees (pote	ntial for cavities	and perches):	
0	, č	, i		• •	
6-12" dbh	12-18" dbh		0 18-24" dbh	> 24	4" dbh
Number of Tree Ca	vities in trunks or	limbs of:			
1 tree cavity in a re 6-12" diameter (e.g., tree 0				ıbirds)	
12-18" diameter (e.g., ho	ooded merganser, woo	od duck, commor	n goldeneye, mink)		
0 >18" diameter (e.g., hood	ed merganser, wood du	ick, common golde	eneye, common mer	anser, barred owl, mi	nk, raccoon, fisher)
Small mammal burn		-			
Abundant	🛛 Pres	ent	Absent		
Cover/Perches/Bas	king/Denning/Nes	sting Habitat			
Dense herbace	ous cover (voles,	small mamm	als, amphibians	& reptiles)	
☑ Large woody dependent of the second se	ebris on the grour	nd (small mar	nmals, mink, am	phibians & reptil	es)
Rocks, crevices	s, logs, tree roots	or hummocks	under water's	surface (turtles, s	nakes, frogs)
	s, fallen logs, over (turtles, snakes, t				
Rock piles, crev	vices, or hollow lo	gs suitable fo	r:		
otter	mink	porcupine	bear	bobcat	🗌 turkey vu
	anding vegetation her, flycatchers, ce			g good visibility c	of open water (
Depressions that m	ay serve as seas	onal (vernal/a	utumnal) pools		
	Pres	ent	🛛 Absent		
Standing water pre-	sent at least part o	of the growing	season, suitab	le for use by	
Breeding amph	ibians	N N	lon-breeding arr	nphibians (foragir	ng, re-hydratio
Turtles		🗌 F	oraging waterfo	wl	
Sphagnum hummu to pools of standing				gs, overhanging	or directly adja
-		a			



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

Important habitat characteristics (if present, describe and quantify them on a separate sheet)						
Medium to large (> 6"), f for spring & two-lined sa		n (cover for stream	salamanders and nesting habitat			
	Present	🛛 Absent				
Flat rocks and logs on basing salamanders and nesting			eds (cover for stream			
	Present	🛛 Absent				
Underwater banks of fine	e silt and/or clay (beave	r, muskrat, otter)				
	Present	🛛 Absent				
Undercut or overhanging	g banks (small mammals	s, mink, weasels)				
	Present	🛛 Absent				
Vertical sandy banks (ba	ank swallow, kingfisher)					
	Present	🛛 Absent				
Areas of ice-free open w	ater in winter					
	⊠ Present	Absent				
Mud flats						
	Present	🛛 Absent				
Exposed areas of well-d	rained, sandy soil suitat	ble for turtle nesting	I			
	Present	🛛 Absent				
Wildlife dens/nests (if pro	esent, describe & quant	ify them on the bac	k 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			



Appendix B: Detailed Wildlife Habitat Eva	aluation		
Part 2. Field Data Form (continued)			
Project area is within:			
100' of beaver, mink or otter den, bank swall	ow 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 & quant	tify them on a separate sheet)		
Emergent wetland vegetation at least seasonally green heron, black-crowned night heron, king rai		n (wood duck,	
Flooded > 5 cm	Present	🛛 Absent	
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent	
Persistent emergent wetland vegetation at least s (mallard, American bittern, sora, common snipe,			
Flooded > 5 cm	Present	🛛 Absent	
Flooded > 25 cm (least bittern, common moorher	n) 🗌 Present	🛛 Absent	
Cattail emergent wetland vegetation at least seas	sonally flooded during the growing	season	
Flooded > 5 cm (marsh wren)	Present	Absent	
Flooded > 25 cm (least bittern, common moorher	n) 🗌 Present	🛛 Absent	
Fine-leafed emergent vegetation (grasses and se season (common snipe, spotted sandpiper, sedg		during the growing	
Flooded > 5 cm	Present	Absent	
Flooded > 25 cm (least bittern, common moorher	n) 🗌 Present	Absent	
V. Landscape Context			
 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? Ves	🛛 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

Δ	nnendix	R٠	Detailed	Wildlife	Habitat	Evaluation
•	PPOLIMIA	_	Dotanoa		IIGNIG	Lianaation

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	f 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

- 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev.

Acushnet to Fall River Reliability Project	
Project Name	
New Bedford, MA. Bordering Vegetated Wetland D39-CM 43 and CM 44	
Location	
Please refer to breakdown of temporary impacts below.	12/01/2021
Size of Area Being Impacted	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. Temporary (work pads and access)		5,725 sf (0.13 		0.13 acre
2.				
3.				
<u>4.</u>				
5				
6.				
7.	_			

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

New Bedford, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D39-CM 43 and CM 44	
Impact Area (number/name)	
2/06/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 38 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy date

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:					
Class:	Scrub-Shrub	Subclass:	Broad-leaved Deciduous				
Hydrology/Water Regime							
Permanently flooded Saturated							
	ntly exposed	Temporarily flooded					
Semi-perr	manently flooded	Intermittently flooded					
Seasonal	ly flooded	Artificially flooded					
	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)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover:	0 Trees (> 20')	75% Shrubs (< 20')	0 Woody vines	15 Mosses	10 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 S	Species	Strata	Pla	ant Species				
Shrub	Spiraea al	ba (45%)*	Herb	Solida	ago sp. (20%)*				
Shrub	Salix disc	olor (15%)	Herb	Carex	x sp. (10%)*				
Shrub	Viburnum (15%)	dentatum	Herb Lythrum salicaria		um salicaria (5%)				
Shrub	Spiraea to	mentosa (5%)	Herb	Thelyr (<5%)	pteris palustris				
Shrub	Rubus al (5%)	legheniensis							
Shrub	Clethra al	nifolia. (<5%)							
Inventory (Soils)									
Soil Survey Unit: percent slopes	Pipestone loam	y sand, 0 to 3	Poorly Draine Drainage Class	<u>d</u>					
Frozen Soils			Frozen Soils Depth						
Standing Water	9	·	·						
Important Habit	at Features (co	mplete for all re	source areas)						
If the following habitat characteristics are present, describe & quantify them on a separate sheet & attach.									

Wildlife Food

C.

III.

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



	s (live or dead) >	30" DBH:	0		
Number (or der	nsity) of Standing	Dead Trees (pr	otential for cavities	and perches):	
0	0		0	0	
6-12" dbh	12-18" (lph	18-24" dbh	>	24" dbh
Number of Tree	e Cavities in trunk	s or limbs of:			
0 6 12" diamatar (a a		that and caracab a	wl, bluebird, other song	ubirda)	
0	j., tiee swallow, saw w	net owi, screech o	wi, bidebild, other song	julius)	
	.g., hooded merganse	r, wood duck, comr	mon goldeneye, mink)		
0 >18" diameter (e.g.,	hooded merganser, wo	od duck, common g	oldeneye, common merc	anser, barred owl, n	nink, raccoon, fisher)
Small mammal	burrows				
Abundant		Drocont	🖂 Absent		
		Present			
Cover/Perches/	/Basking/Denning	/Nesting Habita	at		
Dense hert	baceous cover (vo	oles, small marr	nmals, amphibians	& reptiles)	
	dy debris on the a	round (small m	ammals, mink, am	nhihians & rent	ilos)
	by debits of the g	Tounu (Sinaii III	aminais, mink, am		1163)
Rocks, crev	vices, logs, tree ro	ots or hummod	cks under water's s	surface (turtles,	snakes, frogs)
	vices fallen logs		anches or hummo		
		oc troac wodi			nn)
water's sur	face (turtles, snak	-	-	ck, mink, raccoo	on)
water's sur		-	-	CK, MINK, PACCOC	on)
water's sur	face (turtles, snak	-	for:	ск, тіпк, гассос	·
water's surf Rock piles,	face (turtles, snak crevices, or hollo	w logs suitable	for: ne	D bobcat	turkey vu
water's surf Rock piles, otter Live or dea osprey, king	face (turtles, snak crevices, or hollo mink id standing vegeta	w logs suitable porcupir ation overhangi s, cedar waxwi	for: ne bear ng water or offering ngs)	D bobcat	turkey vu
water's surf Rock piles, otter Live or dea osprey, king	face (turtles, snak crevices, or hollo mink id standing vegeta gfisher, flycatcher at may serve as s	w logs suitable porcupir ation overhangi s, cedar waxwi	for: ne bear ng water or offering ngs)	D bobcat	turkey vu
water's surf Rock piles, otter Live or dea osprey, king Depressions the	face (turtles, snak crevices, or hollo mink d standing vegeta gfisher, flycatcher at may serve as s	w logs suitable porcupir ation overhangi s, cedar waxwi seasonal (verna Present	for: ne Dear ng water or offering ngs) I/autumnal) pools	☐ bobcat g good visibility	turkey vu
water's surf Rock piles, otter Live or dea osprey, king Depressions the	face (turtles, snak crevices, or hollo mink d standing vegeta gfisher, flycatcher at may serve as s	w logs suitable porcupir ation overhangi s, cedar waxwi seasonal (verna Present	for: ne bear ng water or offering ngs) I/autumnal) pools ⊠ Absent	☐ bobcat g good visibility le for use by	turkey vu
water's surf Rock piles, otter Live or dea osprey, king Depressions the Standing water	face (turtles, snak crevices, or hollo mink d standing vegeta gfisher, flycatcher at may serve as s	w logs suitable porcupir ation overhangi s, cedar waxwi seasonal (verna Present	for: ne bear ng water or offering ngs) I/autumnal) pools Absent ing season, suitab	bobcat g good visibility le for use by nphibians (forag	turkey vu
water's surf Rock piles, U otter Live or dea osprey, king Depressions the Standing water Breeding at Turtles Sphagnum hum	face (turtles, snak crevices, or hollo mink d standing vegeta gfisher, flycatcher at may serve as s present at least p mphibians	w logs suitable porcupir ation overhangin s, cedar waxwi seasonal (verna Present part of the grow	for: ne bear ng water or offering ngs) I/autumnal) pools Absent ing season, suitab Non-breeding am Foraging waterfo ogs or saturated lo	bobcat g good visibility le for use by nphibians (forag wl	turkey vu of open water (jing, re-hydratio



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

ć	art 2. Field Data For	m (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 hal for spring & two-lined salamanders)						
		Present	🛛 Absent				
	Flat rocks and logs on bank salamanders and nesting ha			eds (cover for stream			
		Present	🛛 Absent				
Underwater banks of fine silt and/or clay (beaver, muskrat, otter)							
		Present	🛛 Absent				
	Undercut or overhanging ba	anks (small mammals, m	nink, weasels)				
		Present	Absent				
Vertical sandy banks (bank swallow, kingfisher)							
		Present	🛛 Absent				
	Areas of ice-free open wate	r in winter					
		Present	🛛 Absent				
	Mud flats						
		Present	Absent				
	Exposed areas of well-drain	ned, sandy soil suitable f	for turtle nesting				
		Present	🛛 Absent				
	Wildlife dens/nests (if prese	nt, describe & quantify t	hem on the bac	<u>k of this sheet)</u>			
	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			



Appendix B: Detailed Wildlife Habitat E	valuation			
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) 				
Emergent Wetlands (if present, describe & quantify them on a separate sheet) Emergent wetland vegetation at least seasonally flooded during the growing season (wood du green heron, black-crowned night heron, king rail, Virginia rail, coot, etc.)				
				Flooded > 5 cm
Flooded > 25 cm (pied-billed grebe)	Present	Absent		
Persistent emergent wetland vegetation at lea (mallard, American bittern, sora, common snip				
Flooded > 5 cm	Present	Absent		
Flooded > 25 cm (least bittern, common moor	hen)	🛛 Absent		
Cattail emergent wetland vegetation at least s	easonally flooded during the growing	season		
Flooded > 5 cm (marsh wren)	Present	Absent		
Flooded > 25 cm (least bittern, common moor	hen)	🛛 Absent		
Fine-leafed emergent vegetation (grasses and season (common snipe, spotted sandpiper, se		luring the growing		
Flooded > 5 cm	Present	Absent		
Flooded > 25 cm (least bittern, common moor	hen)	Absent		
V. Landscape Context				
 Habitat Continuity (if present, describe the la importance for area-sensitive species) 	andscape context on a separate sheet	and its		
Is the impact area part of an emergent marsh at lea	ast 1.0 acre in size?	🛛 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

Aı	opendix	B:	Detailed	Wildlife	Habitat	Evaluation
	penaix	Ξ.	Detaneu	Winding	Παρπαι	

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

- 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 1. Summary Sheet

Project Name

Acushnet to Fall River Reliability Project

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

rigeot Name	
New Bedford, MA. Bordering Vegetated Wetland D38A-CM45	
Location	
Please refer to breakdown of temporary impacts below.	12/01/2021
Size of Area Being Impacted	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. Temporary (work pad)		839 sf (0.02 acre)		839 sf (0.02
				acre)
2.		_		
3.				
4.				
-				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

New Bedford, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D38A -CM45	
Impact Area (number/name)	
7/22/2021	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 82 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mha Satre

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:		
Class:	Scrub Shrub	Subclass:	Broad-leaved Deciduous	
Hydrology/Wa	ter Regime			
Permaner	tly 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)
 - "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.

Community Name	<u> </u>		
Vegetation Description			

Physical Description



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	<u>6</u>	5 hrubs (< 20')	0	0	25
		ies that c	t comprise 10% or more of		Woody vines the vegetative	Mosses cover in eact	Herbaceous n strata; "*" designates
	a dominant plant	t species	for the stra	ita):	-		-
	Strata		Plant Spe	cies	Strata		Plant Species
	Shrub Sambucus nigra (20%)*		s nigra	Herb		Solidago rugosa* (25%)	
	Shrub		· · · · ·	egheniensis	Herb Herb		Juncus effusus* (10%)*
	Shrub		Spiraea a	lba (15%)*			Carex intumescens (10%)*
	Shrub		Spiraea to (10%)*	omentosa			
	Shrub		Betula po (5%)	pulifolia			
C.	Inventory (Soils)						
	Pipestone loamy sand, 0-3% slopes				Poorly Drain		
	Soil Survey Unit SiL (0"-4"), LFSa (4"-10")		Drainage Class				
			10"				
	Texture (upper part)			Depth			
	No Water Table Depth to Water Table						
III.	I. Important Habitat Features (complete for all re			source areas)			
	If the following hat	oitat chara	cteristics are	e present, desc	ribe & quantify the	em on a separ	ate sheet & attach.
	Wildlife Food						
	Important Wetlar	nd/Aquat	ic Food Pla	nts (smartwe	eds, pondweeds	s, wild rice, b	ulrush, wild celery)
	Abundant		Pre:	sent	🛛 Absent		
	Important Uplan	d/Wetlan	d Food Pla	nts (hard mas	t and fruit/berry	producers)	
	Abundant		🛛 Pre	sent	Absent		
	Shrub thickets o	r streamt	eds with a	bundant earth	worms (America	an woodcock	x)
			Pre:	sent	🛛 Absent		
	Shrub and/or he	rbaceous	vegetation	suitable for v	veery nesting		
			🖂 Pre	sent	Absent		



Number of trees (live or dead) > 30" DBH:		BH: <u>0</u>		
Number (or de	nsity) of Standing Dead 7	Trees (potential for cavities	and perches):	
0	0 12-18" dbh	0	<u> </u>	
6-12" dbh	12-18" dbh	18-24" dbh	> 24	" dbh
Number of Tre	e Cavities in trunks or lim	ibs of:		
0				
6-12" diameter (e.g	g., tree swallow, saw whet owl,	screech owl, bluebird, other song	gbirds)	
	.g., hooded merganser, wood c	duck, common goldeneye, mink)		
>18" diameter (e.g.,	, hooded merganser, wood duck,	common goldeneye, common merc	ganser, barred owl, min	k, raccoon, fisher)
Small mammal	lburrows			
Abundant	Presen	nt 🛛 🖂 Absent		
	—	_		
Cover/Perches	s/Basking/Denning/Nestin	ig Habitat		
🛛 Dense her	baceous cover (voles, sm	nall mammals, amphibians	& reptiles)	
Large woo	dy debris on the ground ((small mammals, mink, am	phibians & reptile	es)
Rocks, cre	vices, logs, tree roots or	hummocks under water's	surface (turtles, sr	nakes, frogs)
		nging branches or hummo gs, wading birds, wood du		
Rock piles	, crevices, or hollow logs	suitable for:		
otter	🗌 mink 🗌	porcupine 🗌 bear	bobcat	🗌 turkey vu
	ad standing vegetation ov ngfisher, flycatchers, ceda	verhanging water or offering	g good visibility of	f open water (
osprey, kir		ar waxwings)		
	at may serve as seasona	ar waxwings) al (vernal/autumnal) pools		
	nat may serve as seasona	al (vernal/autumnal) pools		
Depressions th	Presen	al (vernal/autumnal) pools	le for use by	
Depressions th	Presen	al (vernal/autumnal) pools It	le for use by nphibians (foragin	g, re-hydratio
Depressions the Standing water	Presen	al (vernal/autumnal) pools It	nphibians (foragin	g, re-hydrati
Depressions the Standing water Breeding a	Presen r present at least part of t amphibians	al (vernal/autumnal) pools at Absent the growing season, suitab Non-breeding am Foraging waterfo overed logs or saturated log	nphibians (foragin wl	



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form (

art 2. Field Data Fo	orm (continued)		
Important habitat charact	eristics (if present, desc	ribe and quantify t	hem on a separate sheet)
Medium to large (> 6"), fla for spring & two-lined sala		(cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on ba salamanders and nesting			eds (cover for stream
	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 (ba	nk swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open wa	ater in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-dr	ained, sandy soil suitabl	e for turtle nesting	I
	Present	🛛 Absent	
Wildlife dens/nests (if pre	esent, describe & quantif	y them on the bac	k 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



Appendix B: Detailed Wildlife Habitat Eval	uation	
Part 2. Field Data Form (continued)		
Project area is within:		
100' of beaver, mink or otter den, bank swallow	w 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	y them on a separate sheet)	
Emergent wetland vegetation at least seasonally fl green heron, black-crowned night heron, king rail,		n (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least se (mallard, American bittern, sora, common snipe, re		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
Cattail emergent wetland vegetation at least seaso	onally 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 sec season (common snipe, spotted sandpiper, sedge		during the growing
Flooded > 5 cm	Present	Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
/. Landscape Context		
 Habitat Continuity (if present, describe the lands importance for area-sensitive species) 	cape context on a separate shee	et and its
Is the impact area part of an emergent marsh at least	1.0 acre in size? Ves	🛛 No
(marsh and waterbirds)	2.0 acres in size?	🖂 No
	5.0 acres in size?	🖂 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	f 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

- 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 levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev.

Acushnet to Fall River Reliability Project	
Project Name	
New Bedford, MA. Bordering Vegetated Wetland D35-CM 50	
Location	
Please refer to breakdown of temporary impacts below.	12/01/2021
Size of Area Being Impacted	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. Temporary (work pad)		1,230 sf (0.03 		0.03 acre
2.				
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

New Bedford, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D35-CM 50	
Impact Area (number/name)	
2/06/2019	
Date(s) of Site Visit(s) and Data Collection	
Partly cloudy, 38 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy Lake

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:	<u>-</u>	
Class:	Emergent	Subclass:	Persistent	
Hydrology/Water Regime				
Permane	ntly flooded	Saturated		
Intermitte	ntly exposed	Temporarily	flooded	
Semi-peri	manently flooded		/ flooded	
Seasonal	ly flooded	Artificially flo	oded	
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)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	0	10%	0	5	90
% Cover:	Trees (> 20')	10% Shrubs (< 20')	Woody vines	Mosses	Herbaceous
	pecies that compris lant species for the		f the vegetative co	over in each st	rata; "*" designates
Strata	Plant	Species	Strata	Р	lant Species
Shrub	Spiraea t (10%)	omentosa)*	Herb	Care	ex sp. (30%)*
Shrub	Lyonia li	gustrina (<5%)	Herb		igmites australis 0%)
Shrub	Vacciniur (<5%)	m corymbosum)	Herb	Junc	cus effusus (10%)
Shrub		egheniensis	Herb	Andro (5%)	opogon glomeratus
Shrub	Kalmia	atifolia (<5%)	Herb		nanthelium estinum (<5%)
Herb			Herb		(,
	Grass sp	. (40%)*		Rubu	ıs hispidus (<5%)
Inventory (So	oils)				
Soil Survey Unit: Pipestone loamy sand, 0 to 3 percent slopes		Poorly Draine Drainage Class	d		
			Frozen Soils		
Frozen Soils			Depth		
Standing Wa					
Important Ha	abitat Features (co	omplete for all re	source areas)		
If the following	habitat characteristic	s are present, desc	ribe & quantify ther	n on a separate	sheet & attach.
Wildlife Food	l				
Important We	etland/Aquatic Food	l Plants (smartwe	eds, pondweeds,	wild rice, bulru	ish, wild celery)
		Dresent			

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

C.

III.



	Number of trees (live or dead) > 30" DBH:		0		
Number (or der	nsity) of Standing	Dead Trees (po	otential for cavities	and perches):	
0	0		0	0	
6-12" dbh	12-18" с	lbh	18-24" dbh	>:	24" dbh
Number of Tree	e Cavities in trunks	s or limbs of:			
0		hat and a surrach as		-h :	
0 0	., tree swallow, saw w	net owl, screech ov	wl, bluebird, other song	joiras)	
	.g., hooded merganser	r, wood duck, comr	mon goldeneye, mink)		
0 >18" diameter (e.g.,	hooded merganser, wo	od duck, common g	oldeneye, common merc	anser, barred owl, m	nink, raccoon, fisher)
Small mammal	burrows				
		Descent			
Abundant		Present	🛛 Absent		
Cover/Perches/	/Basking/Denning	/Nesting Habita	at		
Dense herb	baceous cover (vo	les, small mam	nmals, amphibians	& reptiles)	
	dy debris on the a	round (small m	ammals, mink, am	nhihians & ront	iles)
		·			
Rocks, crev	vices, logs, tree ro	ots or hummoo	cks under water's s	surface (turtles,	snakes, frogs)
			anches or hummo ng birds, wood duo		
	ace (turtics, shar	•	-	ok, mink, 10000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
_	crevices or hollo				
_	crevices, or hollo	w logs suitable			
_	crevices, or hollo		_	bobcat	🗌 turkey vu
 Rock piles, otter Live or dea 	🗌 mink	porcupir	ne 🗌 bear ng water or offerin		
 Rock piles, otter Live or dea osprey, king 	mink di standing vegeta	porcupir porcupir ation overhangir s, cedar waxwir	ne 🗌 bear ng water or offering ngs)		
 Rock piles, otter Live or dea osprey, king 	mink d standing vegeta gfisher, flycatcher at may serve as s	porcupir porcupir ation overhangir s, cedar waxwir	ne 🗌 bear ng water or offering ngs)		turkey vu of open water (
 Rock piles, otter Live or dea osprey, king Depressions the 	mink Id standing vegeta gfisher, flycatcher at may serve as s	porcupir ation overhangir s, cedar waxwir easonal (verna Present	ne Dear ng water or offerin ngs) I/autumnal) pools	g good visibility	
 Rock piles, otter Live or dea osprey, king Depressions the 	☐ mink d standing vegeta gfisher, flycatcher at may serve as s ☐ I present at least p	porcupir ation overhangir s, cedar waxwir easonal (verna Present	ne 🗌 bear ng water or offering ngs) I/autumnal) pools 🖂 Absent	g good visibility le for use by	of open water (
 Rock piles, otter Live or dea osprey, king Depressions the Standing water 	☐ mink d standing vegeta gfisher, flycatcher at may serve as s ☐ I present at least p	porcupir ation overhangir s, cedar waxwir easonal (verna Present	ne Dear ng water or offering ngs) I/autumnal) pools ⊠ Absent ing season, suitab	g good visibility le for use by nphibians (forag	of open water (
 Rock piles, otter Live or dea osprey, king Depressions the Standing water Breeding at Turtles Sphagnum hum 	mink d standing vegeta gfisher, flycatcher at may serve as s r present at least p mphibians	porcupir ation overhangir s, cedar waxwir easonal (verna Present part of the growin moss-covered lo	ne Dear ng water or offering ngs) I/autumnal) pools Mabsent ing season, suitab Non-breeding am Foraging waterfo	g good visibility le for use by nphibians (forag wl	of open water (ing, re-hydratio



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

art 2. Field Data F	orm (continued)		
Important habitat charac	teristics (if present, dese	cribe and quantify t	hem on a separate sheet)
Medium to large (> 6"), fl for spring & two-lined sal		n (cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on ba salamanders and nesting			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fine	e silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhanging) banks (small mammals	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (ba	nk swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open w	ater in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-dr	rained, sandy soil suitab	ole for turtle nesting	I
	Present	🛛 Absent	
Wildlife dens/nests (if pre	esent, describe & quant	ify them on the bac	k 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



Appendix B: Detailed Wildlife Habitat Eva	luation	_		
Part 2. Field Data Form (continued)				
Project area is within:				
100' of beaver, mink or otter den, bank swalle	ow 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 & quanti	ify them on a separate sheet)			
Emergent wetland vegetation at least seasonally green heron, black-crowned night heron, king rail		n (wood duck,		
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 moorher	n)	🛛 Absent		
Cattail emergent wetland vegetation at least seas	sonally flooded during the growing	season		
Flooded > 5 cm (marsh wren)	Present	🛛 Absent		
Flooded > 25 cm (least bittern, common moorher	n)	🛛 Absent		
Fine-leafed emergent vegetation (grasses and se season (common snipe, spotted sandpiper, sedge		during the growing		
Flooded > 5 cm	⊠ Present	Absent		
Flooded > 25 cm (least bittern, common moorher	n)	🛛 Absent		
V. Landscape Context				
 Habitat Continuity (if present, describe the lands importance for area-sensitive species) 	scape context on a separate shee	t and its		
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?	🛛 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

4p	pendix B	3: Detailed	Wildlife Habitat	Evaluation
אר	pendix E	. Detunea	Whame Hasha	LValuation

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	f 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev.

Acushnet to Fall River Reliability Project	
Project Name	
Dartmouth, MA. Bordering Vegetated Wetland D34-CM 54	
Location	
Please refer to breakdown of temporary impacts below.	12/01/2021
Size of Area Being Impacted	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. Temporary (work pad)		2,015 sf (0.05 		0.05 acre
2.				
3.				
4.				
5.	<u> </u>			
6.	. <u></u>			
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Dartmouth, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D34-CM 54	
Impact Area (number/name)	
2/25/2019	
Date(s) of Site Visit(s) and Data Collection	
Partly sunny, very windy, 37 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy date

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:	-
Class:	Scrub-Shrub/Emergent	Subclass:	Broad-leaved Deciduous/Persistent
Hydrology/Wa	ater Regime		
Permaner	ntly flooded	Saturated	
Intermitte	ntly exposed	Temporarily	flooded
Semi-peri	manently flooded		/ flooded
Seasonal	ly flooded	Artificially flo	oded
	or Bordering Land Subject to Flooding	5	

- 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)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover:	0 Trees (> 20')	50 Shrubs (< 20')	15 Woody vines	0 Mosses	<u>35</u> Herbaceous
	cies that comprise nt species for the s	10% or more of	•	over in each strat	ta; "*" designates
Strata	Plant S	species	Strata	Plar	nt Species
Shrub	Lyonia ligu	ıstrina (20%)*	Herb	Androp (20%)*	oogon glomeratus.
Shrub	Clethra al	nifolia (20%)*	Herb	Grass	sp. (5%)
Shrub	Rubus alle (10%)	gheniensis	Herb	Solidaç	go sp. (5%)
Shrub	Vaccinium (5%)	corymbosum	Herb	Rubus	hispidus (5%)
Shrub	Pinus stro	obus (<5%)	Herb	Smilax (<5%)	x rotundifolia
Shrub			Woody Vine		
	Quercus il	icifolia (<5%)		Smilax r	otundifolia (15%)*
Inventory (Soils	5)				
	it: Ridgebury fine s pes, extremely sto		Poorly Drained Drainage Class	d	
Frozen Soils	, , , ,	,	Frozen Soils Depth		
Not Applicable Depth to Water Tak	ble		Берш		
	· · · · F · · · · · · · · · · · · · · · · · · ·				

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

C.

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



Number	of trees (liv	ve or dead) > 3	30" DBH:	0		
Number	· (or density)) of Standing [Dead Trees (potential for cavities	and perches):	
0 6-12" dbh		0 12-18" d	bh	0 18-24" dbh	<u> </u>	24" dbh
Number	of Tree Ca	vities in trunks	or limbs of:			
0						
6-12" dian 0	neter (e.g., tree	e swallow, saw wh	net owl, screech	owl, bluebird, other song	oirds)	
	ameter (e.g., ho	oded merganser,	, wood duck, cor	nmon goldeneye, mink)		
0	eter (e.a. boode	d mergenser woo	d duck common	goldeneye, common merga	anser harred owl mi	ink raccoon fisher)
				goldeneye, common merga	anser, barred owi, m	
Small m	ammal burr	ows				
🗌 Abu	Indant	🗌 F	Present	🛛 Absent		
Cover/P	erches/Bas	kina/Dennina/	Nesting Habi	tat		
		king/Denning/	0			
		0 0	0	tat mmals, amphibians (& reptiles)	
🛛 Den	ise herbace	ous cover (vol	les, small ma			les)
⊠ Den □ Larç	nse herbace ge woody de	ous cover (vol ebris on the gr	les, small ma round (small r	mmals, amphibians o nammals, mink, amp	phibians & repti	
⊠ Den □ Larç □ Roc	nse herbace ge woody de ks, crevices	ous cover (vol ebris on the gr s, logs, tree roo	les, small ma ound (small r ots or hummo	mmals, amphibians o nammals, mink, amp ocks under water's si	phibians & reptil urface (turtles, s	snakes, frogs)
Den Larg Roc Roc	nse herbace ge woody de ks, crevices ks, crevices	ous cover (vol ebris on the gr s, logs, tree roo s, fallen logs, c	les, small ma ound (small r ots or hummo overhanging b	mmals, amphibians o nammals, mink, amp	bhibians & reptil urface (turtles, s cks at, or within	snakes, frogs) 1m above the
Den Larg Roc Roc wate	nse herbace ge woody de ks, crevices ks, crevices er's surface	ous cover (vol ebris on the gr s, logs, tree roo s, fallen logs, c	les, small ma ound (small r ots or hummo overhanging b es, frogs, wad	mmals, amphibians o nammals, mink, amp ocks under water's so oranches or hummoo ding birds, wood duc	bhibians & reptil urface (turtles, s cks at, or within	snakes, frogs) 1m above the
Den	nse herbace ge woody de eks, crevices eks, crevices er's surface ek piles, crev	ous cover (vol ebris on the gr s, logs, tree roo s, fallen logs, c (turtles, snake vices, or hollow	les, small ma ound (small r ots or hummo overhanging b es, frogs, wao w logs suitabl	mmals, amphibians on nammals, mink, amp ocks under water's si oranches or hummoo ling birds, wood duc e for:	ohibians & reptil urface (turtles, s cks at, or within k, mink, raccoo	snakes, frogs) 1m above the n)
Den Larg Roc Roc Wate Roc	nse herbace ge woody de ks, crevices ks, crevices er's surface k piles, crev otter	ous cover (vol ebris on the gr s, logs, tree roo s, fallen logs, c (turtles, snake <i>v</i> ices, or hollov	les, small ma ound (small r ots or hummo overhanging b es, frogs, wac w logs suitabl	mmals, amphibians on nammals, mink, amp ocks under water's so oranches or hummoo ding birds, wood duc e for:	bhibians & reptil urface (turtles, s cks at, or within k, mink, raccoo	snakes, frogs) 1m above the n) turkey vu
Den Larg Roc Roc Roc Live	ase herbaced ge woody de ks, crevices er's surface k piles, crev otter e or dead sta	ous cover (vol ebris on the gr s, logs, tree roo s, fallen logs, c (turtles, snake <i>v</i> ices, or hollov	les, small ma ound (small r ots or hummo overhanging b es, frogs, wad w logs suitabl porcup tion overhang	mmals, amphibians on nammals, mink, amp ocks under water's si oranches or hummoo ding birds, wood duc e for: nine Dear ging water or offering	bhibians & reptil urface (turtles, s cks at, or within k, mink, raccoo	snakes, frogs) 1m above the n) turkey vu
 Den Larg Roc Roc wate Roc Live ospi 	ase herbaced ge woody de ks, crevices ks, crevices er's surface k piles, crev otter e or dead sta rey, kingfish	ous cover (vol ebris on the gr s, logs, tree roo s, fallen logs, c (turtles, snake vices, or hollov mink anding vegetati er, flycatchers	les, small ma ound (small r ots or hummo overhanging b es, frogs, wad w logs suitabl porcup tion overhang s, cedar waxy	mmals, amphibians on nammals, mink, amp ocks under water's si oranches or hummoo ding birds, wood duc e for: nine Dear ging water or offering	bhibians & reptil urface (turtles, s cks at, or within k, mink, raccoo	snakes, frogs) 1m above the n) turkey vu
 Den Larg Roc Roc wate Roc Live ospi 	ase herbaced ge woody de ks, crevices ks, crevices er's surface k piles, crev otter e or dead sta rey, kingfish	ous cover (vol ebris on the gr s, logs, tree roo s, fallen logs, c (turtles, snake vices, or hollow mink anding vegetat er, flycatchers ay serve as se	les, small ma ound (small r ots or hummo overhanging b es, frogs, wad w logs suitabl porcup tion overhang s, cedar waxy easonal (vern	mmals, amphibians on nammals, mink, amp ocks under water's sub oranches or hummoo ding birds, wood duc e for: nine Dear ging water or offering vings) al/autumnal) pools	bhibians & reptil urface (turtles, s cks at, or within k, mink, raccoo	snakes, frogs) 1m above the n) turkey vu
 Den Larg Roc Roc wate Roc Live ospi 	ase herbaced ge woody de ks, crevices ks, crevices er's surface k piles, crev otter e or dead sta rey, kingfish	ous cover (vol ebris on the gr s, logs, tree roo s, fallen logs, c (turtles, snake vices, or hollow mink anding vegetat er, flycatchers ay serve as se	les, small ma ound (small r ots or hummo overhanging b es, frogs, wad w logs suitabl porcup tion overhang s, cedar waxy	mmals, amphibians on nammals, mink, amp ocks under water's so oranches or hummoo ding birds, wood duc e for: oine Dear ging water or offering vings)	bhibians & reptil urface (turtles, s cks at, or within k, mink, raccoo	snakes, frogs) 1m above the n) turkey vu
 Den Larç Roc Roc Roc Live Oppress 	ase herbaced ge woody de ks, crevices er's surface k piles, crev otter e or dead sta rey, kingfish sions that ma	ous cover (vol ebris on the gr s, logs, tree roo s, fallen logs, c (turtles, snake vices, or hollow mink anding vegetat er, flycatchers ay serve as se	les, small ma round (small r ots or hummo overhanging b es, frogs, wad w logs suitabl porcup tion overhang s, cedar waxy easonal (vern Present	mmals, amphibians on nammals, mink, amp ocks under water's sub oranches or hummoo ding birds, wood duc e for: nine Dear ging water or offering vings) al/autumnal) pools	ohibians & reptil urface (turtles, s cks at, or within k, mink, raccoo	snakes, frogs) 1m above the n) turkey vu
 Den Larg Roc Roc Roc University Live Ospi Depressity Standing 	ase herbaced ge woody de ks, crevices er's surface k piles, crev otter e or dead sta rey, kingfish sions that ma	ous cover (vol ebris on the gr s, logs, tree roo s, fallen logs, c (turtles, snake vices, or hollov mink anding vegetat er, flycatchers ay serve as se F sent at least pa	les, small ma round (small r ots or hummo overhanging b es, frogs, wad w logs suitabl porcup tion overhang s, cedar waxy easonal (vern Present	mmals, amphibians on nammals, mink, amp ocks under water's su pranches or hummoo ding birds, wood duc e for: bine bear ging water or offering vings) al/autumnal) pools	ohibians & reptil urface (turtles, s cks at, or within k, mink, raccoo bobcat g good visibility o e for use by	snakes, frogs) 1m above the n) turkey vu of open water (
 Den Larg Roc Roc Wate Roc Live Depress Standing 	ase herbaced ge woody de ks, crevices er's surface k piles, crev otter e or dead sta rey, kingfish sions that ma g water pres eding amphi	ous cover (vol ebris on the gr s, logs, tree roo s, fallen logs, c (turtles, snake vices, or hollov mink anding vegetat er, flycatchers ay serve as se F sent at least pa	les, small ma round (small r ots or hummo overhanging b es, frogs, wad w logs suitabl porcup tion overhang s, cedar waxy easonal (vern Present	mmals, amphibians on nammals, mink, amp ocks under water's sub oranches or hummoo ding birds, wood duc e for: oine Dear ging water or offering vings) al/autumnal) pools Nabsent	ohibians & reptil urface (turtles, s cks at, or within k, mink, raccoo bobcat g good visibility e for use by phibians (foragi	snakes, frogs) 1m above the n) turkey vu of open water (i



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

Important habitat charac	teristics (if present, des	cribe and quantify t	hem on a separate sheet)
Medium to large (> 6"), f for spring & two-lined sa		n (cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on basing salamanders and nesting			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fine	e silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhanging	g banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (ba	ank swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open w	ater in winter		
	☑ Present	Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-d	rained, sandy soil suitat	ble for turtle nesting	I
	Present	🛛 Absent	
Wildlife dens/nests (if pro	esent, describe & quant	ify them on the bac	k 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



Appendix B: Detailed Wildlife Habitat E	Evaluation	
Part 2. Field Data Form (continued)		
Project area is within:		
100' of beaver, mink or otter den, bank sv	wallow colony or turtle nesting area	
200' of Great Blue Heron or osprey nest(s	S)	
1400' of a Bald Eagle nest ¹		
Emergent Wetlands (if present, describe & qu	antify them on a separate sheet)	
Emergent wetland vegetation at least season green heron, black-crowned night heron, king		on (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at lea (mallard, American bittern, sora, common sni	, , , ,	5
Flooded > 5 cm	Present	Absent
Flooded > 25 cm (least bittern, common moor	rhen)	🛛 Absent
Cattail emergent wetland vegetation at least s	seasonally flooded during the growing	g season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moo	rhen) 🗌 Present	🖂 Absent
Fine-leafed emergent vegetation (grasses and season (common snipe, spotted sandpiper, se		d during the growing
Flooded > 5 cm	Present	🖂 Absent
Flooded > 25 cm (least bittern, common moor	rhen)	🛛 Absent
V. Landscape Context		
A. Habitat Continuity (if present, describe the la importance for area-sensitive species)	andscape context on a separate she	et and its
Is the impact area part of an emergent marsh at lea	ast 1.0 acre in size? 🛛 Yes	🗌 No
(marsh and waterbirds)	2.0 acres in size? Yes	🛛 No
	5.0 acres in size?	🛛 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
	Dotanoa		I I MADICAL	E talaalon

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., purple loosestrife, *Phragmites*, glossy buckthorn)
 - □ 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev

Acushnet to Fall River Reliability Project	
Project Name	
Dartmouth, MA. Bordering Vegetated Wetland D32-CM 55	
Location	
Please refer to breakdown of impacts below.	12/01/2021
Size of Area Being Impacted	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. Permanent (structure footprint)		4 <u>0 sf</u>		40 sf
2. Temporary (work pad)		_ 7,723 sf (0.18 acre)		0.18 acre
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Dartmouth, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D32-CM 55	
Impact Area (number/name)	
2/25/2019	
Date(s) of Site Visit(s) and Data Collection	
Partly sunny, very windy, 37 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

ming date

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:	<u>-</u>
Class:	Scrub-Shrub	Subclass:	Broad-leaved Deciduous
Hydrology/Wa	ater Regime		
Permaner	ntly flooded	Saturated	
Intermitte	ntly exposed	Temporarily	flooded
Semi-peri	manently flooded		/ flooded
Seasonal	ly flooded	Artificially flo	oded
	or Bordering Land Subject to Flooding		· · ·

- 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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover:		60 Shrubs (< 20')	5 Woody vines	10 Mosses	<u>25</u> Herbaceous
	cies that comprise 1 nt species for the str		the vegetative co	over in each stra	ta; "*" designates
Strata	Plant Sp	ecies	Strata	Pla	nt Species
Shrub	Lyonia ligus	trina (25%)*	Herb	——— Carex	sp. (15%)*
Shrub	Clethra alni	folia (15%)*	Herb		pogon glomeratus %)*
Shrub	Spiraea tom (10%)	entosa	Herb	Solida	go sp. (5%)
Shrub	Vaccinium co (5%)	orymbosum	Herb		ndastrum omeum (5%)
Shrub	Pinus strob	ous (<5%)	Herb	Juncu	ıs effusus (<5%)
Shrub	Quercus ilici	folia (<5%)	Woody Vine	Smilax	rotundifolia (5%)*
Inventory (Soils	5)				
	t: Whitman fine sand s, extremely stony	dy loam, 0 to	Very Poorly D Drainage Class	rained	
Frozen Soils			Frozen Soils Depth		
0"			-		
Depth to Water Tak	ble				

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

Wildlife Food

C.

III.

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



(live or dead) > 30)" DBH:	0		
ity) of Standing D	ead Trees (pot	ential for cavities	and perches):	
0	ŭ	0	0	
12-18" db	h	18-24" dbh	>2	24" dbh
Cavities in trunks	or limbs of:			
tree swallow, saw whe	et owl, screech owl	, bluebird, other song	birds)	
, hooded merganser,	wood duck, commo	on goldeneye, mink)		
oded merganser wood	lduck common gol	deneve, common mera	anser barred owl m	ink raccoon fisher
	r duck, common goi	deneye, common merg	anser, barred owi, m	
urrows				
🛛 Pr	resent	Absent		
asking/Denning/N	lesting Habitat			
ceous cover (vole	es, small mamn	nals, amphibians	& reptiles)	
debris on the grc	ound (small ma	mmals, mink, am	ohibians & repti	les)
ces, logs, tree roo	ts or hummock	s under water's s	urface (turtles,	snakes, frogs)
revices, or hollow	logs suitable f	or:		
mink	porcupine	e 🗌 bear	bobcat	🗌 turkey v
			good visibility	of open water
may serve as se	asonal (vernal/	autumnal) pools		
🗌 Pi	resent	🛛 Absent		
resent at least pa	rt of the growin	g season, suitabl	e for use by	
		Non-breeding am	phibians (foragi	ng, re-hydrati
phibians		non brooding am	1	U , y
	0 12-18" db Cavities in trunks tree swallow, saw whe , hooded merganser, wood urrows □ Pr asking/Denning/N ceous cover (vole debris on the gro ces, logs, tree roo ces, fallen logs, ov ce (turtles, snake revices, or hollow □ mink standing vegetati isher, flycatchers, may serve as sea □ Pr	O 12-18" dbh Cavities in trunks or limbs of: tree swallow, saw whet owl, screech owl , hooded merganser, wood duck, commo oded merganser, wood duck, common gold urrows	0 0 12-18" dbh 18-24" dbh Cavities in trunks or limbs of: 18-24" dbh Cavities in trunks or limbs of: 18-24" dbh Itree swallow, saw whet owl, screech owl, bluebird, other songle, hooded merganser, wood duck, common goldeneye, mink) 19-24" dbh in hooded merganser, wood duck, common goldeneye, common merge 19-24" dbh in hooded merganser, wood duck, common goldeneye, common merge 19-24" dbh in hooded merganser, wood duck, common goldeneye, common merge 19-24" dbh in hooded merganser, wood duck, common goldeneye, common merge 19-24" dbh in hooded merganser, wood duck, common goldeneye, common merge 19-24" dbh in hooded merganser, wood duck, common goldeneye, common merge 19-24" dbh in hooded merganser, wood duck, common goldeneye, common merge 19-24" dbh in rows □ Absent in rows □ Absent in rows □ 19-24" dbh in rows □ 19-24" dbh	12-18" dbh 18-24" dbh > 2 Cavities in trunks or limbs of:



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

art 2. Field Data F			
-			hem on a separate sheet)
Medium to large (> 6"), f for spring & two-lined sa		n (cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on based and nesting			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fine	e silt and/or clay (beave	r, muskrat, otter)	
	Present	Absent	
Undercut or overhanging	g banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (ba	ank swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open w	ater in winter		
	⊠ Present	Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-d	rained, sandy soil suitat	ble for turtle nesting	
	Present	🛛 Absent	
Wildlife dens/nests (if pr	esent, describe & quant	ify them on the bac	k 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



art 2. Field Data Form (continued)	luation	
Project area is within:		
_		
100' of beaver, mink or otter den, bank swallc	ow 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 & quanti	fy them on a separate sheet)	
Emergent wetland vegetation at least seasonally green heron, black-crowned night heron, king rail,		on (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least s (mallard, American bittern, sora, common snipe, r		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent
Cattail emergent wetland vegetation at least seas	onally flooded during the growing	g season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen) Present	🖂 Absent
Fine-leafed emergent vegetation (grasses and se season (common snipe, spotted sandpiper, sedge		d during the growing
Flooded > 5 cm	Present	🖂 Absent
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent
Landscape Context		
Habitat Continuity (if present, describe the lands importance for area-sensitive species)	scape context on a separate she	et and its
Is the impact area part of an emergent marsh at least	1.0 acre in size?	🖂 No
(marsh and waterbirds)	2.0 acres in size? Ves	🖂 No
	5.0 acres in size?	🖂 No
	10.0 acres in size?	🖂 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

Δ	nnendix	R٠	Detailed	Wildlife	Habitat	Evaluation
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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., purple loosestrife, *Phragmites*, glossy buckthorn)
 - □ 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev.

Acushnet to Fall River Reliability Project	
Project Name	
Dartmouth, MA. Bordering Vegetated Wetland D30-CM 57	
Location	
Please refer to breakdown of temporary impacts below.	12/01/2021
Size of Area Being Impacted	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. Temporary (work pad)		2,445 sf (0.06 acre)		0.06 acre
2.				
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Dartmouth, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D30-CM 57	
Impact Area (number/name)	
2/06/2019	
Date(s) of Site Visit(s) and Data Collection	
Partly sunny, very windy, 37 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy Lake

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:	-
Class:	Emergent	Subclass:	Persistent
Hydrology/Wa	ater Regime		
Permane	ntly flooded	Saturated	
Intermitte	ntly exposed	Temporarily	flooded
Semi-per	manently flooded		/ flooded
Seasonal	ly flooded	Artificially flo	oded
	t or Bordering Land Subject to Flooding restrial classification system such as o		· · ·

- 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)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	$\frac{0}{Troop} (r, 20')$	5 Shrubs (< 20')	0 Woody vines	0 Mosses	95 Herbaceous	
	Plant Lists (spec a dominant plan		e 10% or more of			strata; "*" designates	
	Strata	Plant	Species	Strata	F	Plant Species	
	Shrub	Rubus all (<5%)	egheniensis	Herb		hanthelium destinum (55%)*	
	Shrub	Clethra a	Inifolia (<5%)	Herb		dropogon glomeratus. (30%)*	
	Shrub	Spiraea to (<5%)	omentosa	Herb	Sol	idago sp. (15%)	
	Shrub	Lyonia ligu (<5%)	ustrina	Herb	Gra	ss sp. (10%)	
	Shrub	Pinus st	robus (<5%)				
C.	Inventory (Soils)						
	Soil Survey Unit: Whitman fine sandy loam, 0 8 percent slopes, extremely stony			Moderately Well- Drained Drainage Class			
	Frozen Soils			Frozen Soils Depth	6		
	Not Observed						
	Depth to Water Tabl						
III.	Important Habit	tat Features (co	omplete for all re	source areas)			
	If the following hat	bitat characteristic	s are present, desc	ribe & quantify the	em on a separate	e sheet & attach.	
	Wildlife Food						
	Important Wetla	nd/Aquatic Food	Plants (smartwe	eds, pondweeds	, wild rice, buli	ush, wild celery)	
	Abundant		Present	🛛 Absent			
	Important Uplan	d/Wetland Food	Plants (hard mas	and fruit/berry	producers)		
	Abundant	\boxtimes	Present	Absent			
	Shrub thickets o	r streambeds wi	th abundant earth	nworms (America	an woodcock)		
			Present	🛛 Absent			
	Shrub and/or he	rbaceous vegeta	ation suitable for v	veery nesting			
			Present	🛛 Absent			



Number of tree	es (live or dead) > 30"	DBH:	0		
Number (or der	nsity) of Standing Dea	d Trees (pote	ential for cavities	and perches):
0	0	ü	0	-	0
6-12" dbh	12-18" dbh		18-24" dbh		> 24" dbh
Number of Tree	e Cavities in trunks or	limbs of:			
0					
6-12" diameter (e.g	g., tree swallow, saw whet c	owl, screech owl,	bluebird, other song	gbirds)	
-	e.g., hooded merganser, wo	od duck, commo	n goldeneye, mink)		
>18" diameter (e.g.,	hooded merganser, wood du	ıck, common golc	leneye, common merç	ganser, barred owl	l, mink, raccoon, fishe
Small mammal	burrows				
Abundant	🖂 Pres	sent	Absent		
Cover/Perches	/Basking/Denning/Ne	sting Habitat			
🛛 Dense hert	baceous cover (voles,	small mamm	als, amphibians	& reptiles)	
Large wood	dy debris on the grour	nd (small mar	nmals, mink, am	phibians & re	ptiles)
Rocks, crev	vices, logs, tree roots	or hummock	s under water's s	surface (turtle	s, snakes, frogs)
	viene fellen lege eve		nches or hummo	cks at, or with	nin 1m above the
	face (turtles, snakes,	frogs, wading	g birds, wood du	ck, mink, racc	oon)
water's sur		•		ck, mink, racc	oon)
water's sur	face (turtles, snakes,	•	Dr:	ck, mink, racc ∏ bobcat	
water's sur Rock piles, otter Live or dea	face (turtles, snakes, , crevices, or hollow lo	ogs suitable fo	or: bear water or offerin	bobcat	turkey v
water's sur Rock piles, otter Live or dea osprey, kin	face (turtles, snakes, , crevices, or hollow lo mink ad standing vegetation	ogs suitable fo porcupine overhanging edar waxwing	or: bear water or offerin gs)	bobcat	turkey v
water's sur Rock piles, otter Live or dea osprey, kin	face (turtles, snakes, , crevices, or hollow lo mink ad standing vegetation agfisher, flycatchers, co	ogs suitable fo porcupine overhanging edar waxwing onal (vernal/a	or: bear water or offerin gs)	bobcat	turkey v
water's sur Rock piles, otter Live or dea osprey, kin Depressions th	face (turtles, snakes, , crevices, or hollow lo mink ad standing vegetation ogfisher, flycatchers, co nat may serve as seas	ogs suitable fo porcupine overhanging edar waxwing onal (vernal/a sent	or: bear water or offerin gs) autumnal) pools X Absent	☐ bobcat g good visibili	turkey v
water's sur Rock piles, otter Live or dea osprey, kin Depressions th	face (turtles, snakes, , crevices, or hollow lo mink ad standing vegetation offisher, flycatchers, co nat may serve as seas Present at least part	ogs suitable for porcupine overhanging edar waxwing onal (vernal/a sent of the growin	or: bear water or offerin gs) autumnal) pools Absent g season, suitab	☐ bobcat g good visibili le for use by	ty of open water
water's sur Rock piles, otter Live or dea osprey, kin Depressions th Standing water	face (turtles, snakes, , crevices, or hollow lo mink ad standing vegetation offisher, flycatchers, co nat may serve as seas Present at least part	ogs suitable for porcupine overhanging edar waxwing onal (vernal/a sent of the growing on the growing on the growing othe	or: bear water or offerin gs) autumnal) pools Absent g season, suitab	☐ bobcat g good visibili le for use by nphibians (fora	turkey v



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

art 2. Field Data F	orm (continued)		
Important habitat charac	teristics (if present, des	cribe and quantify t	hem on a separate sheet)
Medium to large (> 6"), f for spring & two-lined sa		n (cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on basing salamanders and nesting			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fine	e silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhanging	g banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (ba	ank swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open w	ater in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-d	rained, sandy soil suitat	ble for turtle nesting	
	Present	🛛 Absent	
Wildlife dens/nests (if pro	esent, describe & quant	ify them on the bac	k 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



art 2. Field Data Form (continued)	lation	
Project area is within:		
100' of beaver, mink or otter den, bank swallow	<i>r</i> 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 flo green heron, black-crowned night heron, king rail, N		on (wood duck,
Flooded > 5 cm	Present	Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, re		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	Absent
Cattail emergent wetland vegetation at least season	nally flooded during the growing	g season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
Fine-leafed emergent vegetation (grasses and sede season (common snipe, spotted sandpiper, sedge		l during the growing
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
Landscape Context		
Habitat Continuity (if present, describe the landsc importance for area-sensitive species)	ape context on a separate shee	et and its
Is the impact area part of an emergent marsh at least	1.0 acre in size? Ves	🛛 No
(marsh and waterbirds)	2.0 acres in size?	🛛 No
	5.0 acres in size?	🛛 No
	10.0 acres in size?	🖂 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

٩p	pendix B	: Detailed	Wildlife	Habitat	Evaluation
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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	f 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

- 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., purple loosestrife, *Phragmites*, glossy buckthorn)

Disturbance from roads or highways	🛛 Other human disturbance
------------------------------------	---------------------------

Γ	Is the site the only	resource area in	n 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 1. Summary Sheet

Acushnet to Fall River Reliability Project

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

Project Name	
Dartmoutht, MA. Bordering Vegetated Wetland D27-CM 62	
Location	
Please refer to breakdown of temporary impacts below.	12/01/2021
Size of Area Being Impacted	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. Temporary (work pads and access)		10,178 sf (0.23 acre)		0.23 acre
2.				
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Dartmouth, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D27-CM 62	
Impact Area (number/name)	
3/20/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 47 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

ming date

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:		
Class:	Scrub-Shrub	Subclass:	Broad-leaved Deciduous	
Hydrology/Wa	ater Regime			
Permaner	ntly flooded	Saturated		
	ntly exposed	Temporarily	flooded	
Semi-peri	manently flooded		y flooded	
Seasonal	ly flooded	Artificially flo	ooded	
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)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0 Trees (>	20')	80 Shrubs (< 20')	0 Woody vines	0 Mosses	20 Herbaceous
	Plant Lists (spec a dominant plan	cies that	comprise	e 10% or more o			n strata; "*" designates
	Strata		Plant S	Species	Strata		Plant Species
	Shrub		Clethra (65%)	a alnifolia	Herb		Andropogon glomeratus (15%)*
	Shrub			allegheniensis	Herb		Rubus hispidus (10%)*
	Shrub		Spiraea (5%)	tomentosa	Herb		Solidago sp. (5%)
	Shrub		·		Herb		Carex sp. (<5%)
	Shrub				Herb		
	Shrub				Herb		
C.	Inventory (Soils)	I					
	Soil Survey Unit: Ridgebury fine sandy loam, 0 to 3 percent slopes, extremely stony Not recorded				Poorly Draine Drainage Class Not recorded		
	Texture (upper part) 0"			Depth			
III.	Depth to Water Tabl		ures (co	molete for all r	esource areas)		
	-			-		em on a separ	ate sheet & attach.
	Wildlife Food						
	Important Wetla	nd/Aqua	tic Food	Plants (smartwe	eds, pondweeds	, wild rice, b	ulrush, wild celery)
	Abundant		🗌 F	Present	🛛 Absent		
	Important Upland/Wetland Food Plants (hard mast and fruit/berry producers)						
	Abundant		🖂 F	Present	Absent		
	Shrub thickets o	r stream	beds witl	h abundant eart	hworms (America	an woodcocł	x)
			🗌 F	Present	🛛 Absent		
	Shrub and/or he	rbaceou	is vegeta	tion suitable for	veery nesting		
			🖂 F	Present	Absent		



Wildlife Habitat Protection Guidance

rt 2. Field Da		continued)			
Number of trees (live or dead) > 30" DBH:		0			
Number (or densit	ty) of Standing I	Dead Trees (pote	ential for cavities	and perches):	
1	0	lbh	0	0	
6-12" dbh			18-24" dbh	> 24	4" dbh
Number of Tree C	avities in trunks	s or limbs of:			
0 6-12" diameter (e.g., tr	ee swallow. saw w	het owl. screech owl.	bluebird. other sona	birds)	
0				,	
12-18" diameter (e.g., 0	hooded merganser	, wood duck, commo	n goldeneye, mink)		
>18" diameter (e.g., hoc	oded merganser, woo	od duck, common gold	eneye, common merg	anser, barred owl, mi	nk, raccoon, fisher)
Small mammal bu	irrows				
Abundant	🖂 F	Present	Absent		
Cover/Perches/Ba	eking/Denning	Nesting Habitat			
		-			
Dense herbac	eous cover (vo	les, small mamm	als, amphibians	& reptiles)	
Large woody	debris on the gr	round (small man	nmals, mink, am	phibians & reptil	es)
Rocks, crevice	es, logs, tree ro	ots or hummocks	s under water's s	surface (turtles, s	snakes, frogs)
		overhanging bran es, frogs, wading			
Rock piles, cr	evices, or hollo	w logs suitable fo	r:		
otter	mink	porcupine	bear	bobcat	turkey vultu
		tion overhanging s, cedar waxwing		g good visibility o	of open water (e.
Depressions that	may serve as s	easonal (vernal/a	utumnal) pools		
	🗆 F	Present	🛛 Absent		
Standing water pr	esent at least p	art of the growing	g season, suitabl	le for use by	
Breeding amp	hibians	N	Ion-breeding am	phibians (foragii	ng, re-hydration)
Turtles		🗌 F	oraging waterfor	wl	
Sphagnum humm to pools of standir				gs, overhanging	or directly adjac
		Tracant			

Present Absent



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form (

art 2. Field Data Fo	orm (continued)		
Important habitat charact	eristics (if present, desc	ribe and quantify t	hem on a separate sheet)
Medium to large (> 6"), fla for spring & two-lined sala		(cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on ba salamanders and nesting			eds (cover for stream
	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 (ba	nk swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open wa	ater in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-dr	ained, sandy soil suitabl	e for turtle nesting	I
	Present	🛛 Absent	
Wildlife dens/nests (if pre	esent, describe & quantif	y them on the bac	k 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



ppendix B: Detailed Wildlife Habitat Ev	aluation	
Part 2. Field Data Form (continued)		
Project area is within:		
100' of beaver, mink or otter den, bank swa	llow 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 & quar	ntify them on a separate sheet)	
Emergent wetland vegetation at least seasonall green heron, black-crowned night heron, king ra		n (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least (mallard, American bittern, sora, common snipe		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	en) Present	Absent
Cattail emergent wetland vegetation at least sea	asonally flooded during the growing	season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	en) 🗌 Present	🛛 Absent
Fine-leafed emergent vegetation (grasses and s season (common snipe, spotted sandpiper, sed		during the growing
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	en)	🛛 Absent
/. Landscape Context		
 Habitat Continuity (if present, describe the land importance for area-sensitive species) 	dscape context on a separate shee	et and its
Is the impact area part of an emergent marsh at least	t 1.0 acre in size? 🗌 Yes	🛛 No
(marsh and waterbirds)	2.0 acres in size?	🛛 No
	5.0 acres in size?	🖂 No
	10.0 acres in size?	🖂 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

٩p	pendix B	: Detailed	Wildlife	Habitat	Evaluation
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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	f 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

- 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
E 11001100	or orgrinitourit	onionnioun	oomannination

- Evidence of significant levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

Disturbance from roads or highways	🛛 Other human disturbance
------------------------------------	---------------------------

_					
	Is the site the only	recource area in	the vicinity	y of an otherwise	developed area
		/ 16300106 alea ili		y UI all Ullel WISE	ueveloped alea

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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev.

12/01/2021
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. Temporary (work pads and access)		6737 sf (0.15 acre)		0.15 acre
2.		-		
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Dartmouth, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D26	
Impact Area (number/name)	
3/20/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 47 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

ming date

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	Subs	system:	
Class:	Scrub-Shrub	Subo	class:	Broad-leaved Deciduous
Hydrology/Wa	ater Regime			
Permane	ntly flooded	\boxtimes	Saturated	
Intermitte	ntly exposed	ר 🗌	Temporarily f	flooded
Semi-per	manently flooded	□ I	ntermittently	flooded
Seasonal	ly flooded	□ A	Artificially floo	oded
Use a ter	t or Bordering Land Subject to Flooding restrial classification system such as of tion of the Natural Communities of Massac	ne of t	the two listed	below:

- Kearsley, MA DFW NHESP, Westborough, MA. July 2000. (Department of Fish & Game Website)
- "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.

Community Name		
Vegetation Description		
Physical Description		
Vegetation Description Physical Description	 	

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:		<u>65</u>	5	5	25	
		Trees (> 20') ties that comprise 1 t species for the stra		Woody vines f the vegetative co	Mosses over in each stra	Herbace ta; "*" desig	
	Strata	Plant Spe	ecies	Strata	Plai	nt Species	
	Shrub	Spiraea t (20%)*	omentosa	Herb		dastrum omeum (30 ⁴	%)*
	Shrub	Spiraea al (15%)*	ba	Herb	Solidag	jo sp. (15%)*
	Shrub	Clethra alı (15%)*	nifolia	Herb	Androp (10	oogon glom %)	eratus
	Shrub	Acer rub	rum (5%)	Herb	Carex s	p. (5%)	
	Shrub	Salix sp.	(5%)	Herb	Rub	ous hispidus	s (5%)
	Shrub	Vacciniur corymbos	m sum (5%)	Herb	Juncus	sp. (<5%)	
C.	Inventory (Soils)			Woody Vines	Smilax r	otundifolia	(5%)*
	to 8 percent slop		/	Moderately We Drainage Class 13" Depth	ell- Drained		
Ш.	Important Habit	at Features (comp	olete for all re	esource 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



rt 2. Field D	ata Form (cor	ntinued)			
Number of trees	(live or dead) > 30"	DBH:	0		
Number (or dens	ity) of Standing De	ad Trees (pote	ential for cavities	s and perches):	
0	0	ŭ		. ,	
6-12" dbh	0 12-18" dbh		0 18-24" dbh	>	24" dbh
Number of Tree (Cavities in trunks o	r limbs of:			
0					
6-12" diameter (e.g.,	tree swallow, saw whet	owl, screech owl,	bluebird, other son	gbirds)	
12-18" diameter (e.g.	, hooded merganser, wo	ood duck, commoi	n goldeneye, mink)		
0 >18" diameter (e.g., ho	ooded merganser, wood o	uck. common aold	eneve, common mer	ganser, barred owl, m	nink, raccoon, fisher)
Small mammal b		,	, - ,	g,	,,
Abundant	🖂 Pre	sent	🛛 Absent		
Cover/Perches/B	asking/Denning/Ne	esting Habitat			
🛛 Dense herba	ceous cover (voles	, small mamm	als, amphibians	s & reptiles)	
🛛 Large woody	debris on the grou	nd (small man	nmals, mink, an	nphibians & rept	iles)
Rocks, crevie	ces, logs, tree roots	or hummocks	under water's	surface (turtles,	snakes, frogs)
	ces, fallen logs, ove ce (turtles, snakes,				
Rock piles, c	revices, or hollow l	ogs suitable fo	r:		
otter	ink mink	porcupine	bear	bobcat	🗌 turkey vu
	standing vegetation			ng good visibility	of open water (
Depressions that	may serve as seas	sonal (vernal/a	utumnal) pools		
	Pre	sent	🛛 Absent		
Standing water p	resent at least part	of the growing	g season, suitat	ble for use by	
🛛 Breeding am	phibians		lon-breeding ar	nphibians (forag	ing, re-hydratior
Turtles		🗌 F	oraging waterfo	owl	
	nucks or mats, mos ing water in spring			ogs, overhanging	g or directly adja
		sent	Absent		



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

art 2. Field Data F	orm (continued)		
Important habitat charac	teristics (if present, dese	cribe and quantify t	hem on a separate sheet)
Medium to large (> 6"), fl for spring & two-lined sa		n (cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on ba salamanders and nesting			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fine	e silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhanging) banks (small mammals	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (ba	nk swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open w	ater in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-di	rained, sandy soil suitab	ole for turtle nesting	I
	Present	🛛 Absent	
Wildlife dens/nests (if pre	esent, describe & quanti	ify them on the bac	k 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



Appendix B: Detailed Wildlife Ha	abitat Evaluation				
Part 2. Field Data Form (con	tinued)				
Project area is within:	Project area is within:				
100' of beaver, mink or otter den	, bank swallow colony or turtle nesting area	a			
200' of Great Blue Heron or ospr	ey nest(s)				
☐ 1400' of a Bald Eagle nest ¹					
Emergent Wetlands (if present, desc	ribe & quantify them on a separate sheet)				
Emergent wetland vegetation at leas green heron, black-crowned night he	t seasonally flooded during the growing sea ron, king rail, Virginia rail, coot, etc.)	ason (wood duck,			
Flooded > 5 cm	Present	🛛 Absent			
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent			
	ion at least seasonally flooded during the g mon snipe, red-winged blackbird, swamp s				
Flooded > 5 cm	Present	🛛 Absent			
Flooded > 25 cm (least bittern, comm	non moorhen)	🛛 Absent			
Cattail emergent wetland vegetation	at least seasonally flooded during the grow	ring season			
Flooded > 5 cm (marsh wren)	Present	🛛 Absent			
Flooded > 25 cm (least bittern, comm	non moorhen)	🛛 Absent			
Fine-leafed emergent vegetation (gra season (common snipe, spotted sand	asses and sedges) at least seasonally flood dpiper, sedge wren)	led during the growing			
Flooded > 5 cm	Present	🛛 Absent			
Flooded > 25 cm (least bittern, comm	non moorhen)	🛛 Absent			
IV. Landscape Context					
A. Habitat Continuity (if present, descr importance for area-sensitive species	ibe the landscape context on a separate sh s)	neet and its			
Is the impact area part of an emergent m	arsh at least 1.0 acre in size?	es 🛛 No			
(marsh and waterbirds)	2.0 acres in size?	es 🛛 No			
	5.0 acres in size?	es 🛛 No			
	10.0 acres in size? 🗌 Ye	es 🖂 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

٩p	pendix B	: Detailed	Wildlife	Habitat	Evaluation
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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

- 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
E 11001100	or orgrinitourit	onionnioun	oomannination

- Evidence of significant levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

Disturbance from roads or highways	🛛 Other human disturbance
------------------------------------	---------------------------

Is the site the only	y resource area in	the vicinity of a	an otherwise de	veloped 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 1. Summary Sheet

Important: When
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use only the tab
key to move your
cursor - do not
use the return
key.

Acushnet to Fall River Reliability Project Project Name	
Dartmouth, MA. Bordering Vegetated Wetland D25A	
Location	
Please refer to breakdown of temporary impacts below.	12/01/2021
Size of Area Being Impacted	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. Temporary (work pad and access)	3867 sf (0.09		0.09 acre
		acre)		
2.				
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))

Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Dartmouth, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D25A	
Impact Area (number/name)	
7/23/2021	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 77 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mha Satre

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:	-
Class:	Emergent	Subclass:	Persistent
Hydrology/Wa	ter Regime		
Permaner	ntly flooded	Saturated	
Intermitter	ntly exposed	Temporarily	flooded
Semi-perr	manently flooded		flooded
Seasonall	y flooded	Artificially flo	oded

- 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)
 - "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.

Community Name		
Vegetation Description		

Physical Description



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	10	0	0	90		
		Trees (>	- / /	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		
	Shrub		Elaeagnus umbellata (5%)*	Herb		Juncus tenuis (5%)		
	Shrub	Salix discolor (5%)*		Herb		Scirpus cyperninus (< 5%)		
	Shrub		Rosa multiflora (<5%)	Herb		Eutrochium maculatum (<5%)		
	Shrub		Acer rubrum (<5%)	Herb		Holcus lanatus		
	Herb	Herb Lythrum salicaria (30%)*						
	Herb		Solidago euthamnia (5%)					
C.	Inventory (Soils))						
	Woodbridge fine stony	e sandy lo	oam, 0-8% slopes, very	Moderately V Drainage Class	Vell-Drained	1		
	SiL (0"-3"), SaL (3"-8")			8"				
	Texture (upper part)			Depth				
	No Water Table							
	Depth to Water Tab	le						
III.	Important Habi	tat Featu	ires (complete for all res	ource areas)				
	If the following ha	bitat chara	acteristics are present, descri	be & quantify the	m on a sepa	rate sheet & attach.		
	Wildlife Food							
	Important Wetla	nd/Aquat	ic Food Plants (smartwee	ds, pondweeds,	, wild rice, b	oulrush, wild celery)		
	Abundant		Present	🛛 Absent				
	Important Uplan	d/Wetlan	d Food Plants (hard mast	and fruit/berry p	producers)			
	Abundant		Present	🛛 Absent				
	Shrub thickets o	or stream	peds with abundant earthv	vorms (America	in woodcoc	k)		
			Present	🛛 Absent				
	Shrub and/or he	rbaceou	s vegetation suitable for ve	ery nesting				
			Present	🛛 Absent				



rt 2. Field D	ata Form (c	ontinued)			
Number of trees	(live or dead) > 3	0" DBH:	0		
Number (or dens	sity) of Standing D	ead Trees (pote	ential for cavities	s and perches):	
0	0		0	0	
6-12" dbh	0 12-18" dt	h	18-24" dbh	> 2	4" dbh
Number of Tree	Cavities in trunks	or limbs of:			
0	tree swallow, saw wh				
6-12" diameter (e.g.,	tree swallow, saw wh	et owl, screech owl,	bluebird, other son	gbirds)	
12-18" diameter (e.g	, hooded merganser,	wood duck, commo	n goldeneye, mink)		
0	ooded merganser, woo	duale common gold		rannar barrad awl mi	ink racean fisher)
	-	a duck, common gola	eneye, common mei	ganser, barred owi, mi	ink, raccoon, iisner)
Small mammal b	ourrows				
Abundant	□ P	resent	🛛 Absent		
Cover/Perches/E	Basking/Denning/I	Nesting Habitat			
Dense herba	aceous cover (vol	es, small mamm	als, amphibians	s & reptiles)	
Large woody	v debris on the gro	ound (small man	nmals, mink, an	nphibians & reptil	les)
Rocks, crevi	ces, logs, tree roo	ots or hummocks	under water's	surface (turtles, s	snakes, frogs)
	ces, fallen logs, o ice (turtles, snake				
Rock piles, c	revices, or hollow	/ logs suitable fo	r:		
otter	mink	porcupine	🗌 bear	bobcat	turkey vu
	standing vegetat fisher, flycatchers			ng good visibility o	of open water (
Depressions that	t may serve as se	asonal (vernal/a	utumnal) pools		
	□ P	resent	🛛 Absent		
Standing water p	present at least pa	art of the growing	g season, suital	ole for use by	
Breeding am	phibians		Ion-breeding ar	mphibians (foragi	ng, re-hydratio
Turtles		🗌 F	oraging waterfo	lwc	
	mucks or mats, m ing water in sprin			ogs, overhanging	or directly adj
	- ·	resent	Absent		



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands Program

rt 2. Field Data	Form (continued)		
Important habitat chara	acteristics (if present, des	cribe and quantify	them on a separate sheet)
Medium to large (> 6"), for spring & two-lined s		n (cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky salar		beds (cover for stream
	Present	🛛 Absent	
Underwater banks of fi	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangi	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (t	oank 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 suitat	ble for turtle nesting	g
	Present	🛛 Absent	
Wildlife dens/nests (if p	present, describe & quant	ify them on the bac	ck 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



Ap	pendix B: Detailed wildlife Habitat Evalu	lation						
Pa	art 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 flogreen heron, black-crowned night heron, king rail, V		n (wood duck,					
	Flooded > 5 cm	Present	🛛 Absent					
	Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent					
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, red							
	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 season (common snipe, spotted sandpiper, sedge v		during the growing					
	Flooded > 5 cm	Present	🛛 Absent					
	Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent					
IV.	Landscape Context							
Α.	 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? Ves	🛛 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

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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 (littl	le 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 levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev

Acushnet to Fall River Reliability Project				
Project Name				
Dartmouth, MA. Bordering Vegetated Wetland D25-CM 70 and Riverfront Area				
Location				
Please refer to breakdown of impacts below.	12/01/2021			
Size of Area Being Impacted Date				

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

Name 1. Permanent (structure footprint)	Waterbody/ Waterway	Wetland 51 sf	Upland*	Total Area
2. Temporary (work pad)		9,5769 sf (0.22 acre)		0.22 acre
 Temporary (access) 4. 		4,302 sf (0.10 acre)		0.10 acre
5				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Dartmouth, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D25-CM 70 and Riverfront Area	
Impact Area (number/name)	
3/20/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 47 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy Lake

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:						
Class:	Emergent/Scrub-Shrub	Subclass:	Persistent/Broad-leaved Deciduous					
Hydrology/Wa	Hydrology/Water Regime							
Permanently flooded Saturated								
Intermitter	ntly exposed	Temporarily flooded						
Semi-perr	nanently flooded	Intermittently flooded						
Seasonall	y flooded	Artificially flooded						
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)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

١	p	pendix	B:	Detailed	Wildlife	Habitat	Evaluation
-							

Part 2. Field Data Form (continued)

B. Inventory (Plant community) 5% open water

	% Cover:	0 Trees (> 20')	65 Shrubs (< 20')	0 Woody vines	5 Mosses	25 Herbaceous	
	Plant Lists (spec a dominant plant		the vegetative co	over in each stra	ita; "*" designates		
	Strata	Plant	Species	Strata	Pla	nt Species	
	Shrub	Clethi (35%	a alnifolia)*	Herb	Juncus	s effusus (5%)	
	Shrub	Rubus (<5%)*	allegheniensis	Herb	Onoclea sensibilis (5%		
	Shrub			Herb	Scirpus	cypernius (<5%)	
	Herb	Phragmites austrails (30%)*		Herb	Persica	ria sagittata (<5%)	
	Herb	Solida	ago sp. (10%)				
	Herb	Carex	sp. (5%)				
C.	Inventory (Soils)						
	Soil Survey Unit:	Soil Survey Unit: Freetown muck, 0 to 1 percent		Very Poorly D	rained		
	slopes, extremel	y stony		Drainage Class			
	Oa 0"-16"	()		<u>16"</u>			
	Texture (upper p 0" ~2" standing Depth to Water Table	g water		Depth			
III.	Important Habit	at Features (co	omplete for all re	source 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)

Present Abundant

Absent

Shrub thickets or streambeds with abundant earthworms (American woodcock)

Present

Absent

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

Absent



Wildlife Habitat Protection Guidance

		r = 01 ueau / r	30" DBH:	0		
Numbe	r (or density)) of Standing	Dead Trees (pot	tential for cavities	and perches):	
0		0		0 18-24" dbh	0	
6-12" dbł	า	12-18" d	bh	18-24" dbh	> 2	4" dbh
Numbe	r of Tree Ca	vities in trunks	s or limbs of:			
0 6-12" dia	meter (e.a. tree	e swallow, saw w	het owl screech ow	l, bluebird, other songl	nirds)	
0				-	511037	
12-18" di 0	ameter (e.g., ho	ooded merganser	, wood duck, comm	on goldeneye, mink)		
	neter (e.g., hoode	ed merganser, woo	od duck, common gol	deneye, common merga	anser, barred owl, mi	nk, raccoon, fisher)
Small r	nammal burr	ows				
	undant		Present	🛛 Absent		
	unuani		resent			
Cover/I	Perches/Bas	king/Denning/	Nesting Habitat			
De	nse herbace	ous cover (vo	les, small mamr	nals, amphibians	& reptiles)	
🛛 Lar	ge woody de	ebris on the g	ound (small ma	mmals, mink, amp	ohibians & reptil	es)
🗌 Ro	cks, crevices	s, logs, tree ro	ots or hummock	s under water's s	urface (turtles, s	snakes, frogs)
				nches or hummoo g birds, wood duc		
🗌 Ro	ck piles, crev	vices, or hollo	w logs suitable f	or:		
	otter	mink		e 🗌 bear	bobcat	🗌 turkey vu
			tion overhangin s, cedar waxwin	g water or offering gs)	good visibility o	of open water (
Depres	sions that m	ay serve as s	easonal (vernal/	autumnal) pools		
		E F	Present	🛛 Absent		
Standir	ng water pres	sent at least p	art of the growir	ng season, suitabl	e for use by	
_	eding amph	ibians	\boxtimes	Non-breeding am	phibians (foragi	ng, re-hydratior
🖂 Bre	0 1					
	rtles		\boxtimes	Foraging waterfov	vl	

Present Absent



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

art 2.	Field Data For	m (continued)			
<u>Import</u>	ant habitat character	istics (if present, describ	e and	quantify the	em on a separate sheet)
	m to large (> 6"), flat ing & two-lined salam		over fo	or stream sa	lamanders and nesting habitat
		Present	X A	Absent	
	5	s or within exposed port abitat for dusky salaman		f streambed	ds (cover for stream
		Present	X A	Absent	
Under	water banks of fine si	lt and/or clay (beaver, m	uskrat	t, otter)	
		Present	X A	Absent	
Under	cut or overhanging ba	anks (small mammals, m	iink, w	easels)	
		Present	X A	Absent	
Vertica	al sandy banks (bank	swallow, kingfisher)			
		Present	X A	Absent	
Areas	of ice-free open wate	er in winter			
		Present	X A	Absent	
Mud fl	ats				
		Present	A 🛛	Absent	
Expos	ed areas of well-drair	ned, sandy soil suitable f	or turtl	le nesting	
		Present	X A	Absent	
Wildlif	e dens/nests (if prese	ent, describe & quantify t	hem o	n the back	of this sheet)
Turtle	nesting sites				
		Present	A	Absent	
Bank	swallow colony				
		Present	X A	Absent	
Nest(s) present of	Bald Eagle		Dsprey	Great Blue Heron
Den(s) present of	Otter	🗌 N	/link	Beaver



ppendix B: Detailed Wildlife Habitat Eva Part 2. Field Data Form (continued)	aluation	
Project area is within:		
100' of beaver, mink or otter den, bank swal	low 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 & quan	tify them on a separate sheet)	
Emergent wetland vegetation at least seasonally green heron, black-crowned night heron, king ra		on (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least (mallard, American bittern, sora, common snipe,		
Flooded > 5 cm	⊠ Present	Absent
Flooded > 25 cm (least bittern, common moorhe	en)	Absent
Cattail emergent wetland vegetation at least sea	asonally flooded during the growing	g season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	en) 🗌 Present	🛛 Absent
Fine-leafed emergent vegetation (grasses and s season (common snipe, spotted sandpiper, sede		l during the growir
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	en)	Absent
. Landscape Context		
 Habitat Continuity (if present, describe the land importance for area-sensitive species) 	dscape context on a separate shee	et and its
Is the impact area part of an emergent marsh at least	1.0 acre in size?	🛛 No
(marsh and waterbirds)	2.0 acres in size? Ves	🛛 No
	5.0 acres in size? Ves	🛛 No
	10.0 acres in size?	🖂 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

Δ.	nnendix	в∙ г	Detailed	Wildlife	Habitat	Evaluation
	ppendix	р. г	Jelaneu	WIIUIIIE	Παρπαι	

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	f 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 (littl	le 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 significan	t chemical	contamination
--	--	--	----------	---------------	------------	---------------

- Evidence of significant levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

Disturbance	from	roads (or hi	ghways	
Distansanoc	110111	10000		gnways	

Is the site the only	/ resource area in th	e vicinity of ar	n otherwise dev	eloped 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.

Other human disturbance



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 1. Summary Sheet

Important: When
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use only the tab
key to move your
cursor - do not
use the return
kev.

Acushnet to Fall River Reliability Project	
Project Name	
Dartmouth, MA. Bordering Vegetated Wetland D25-CM 69	
Location	
Please refer to breakdown of impacts below.	12/01/2021
Size of Area Being Impacted	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. Temporary (work pads)		_ 4,837 sf (0.11 acre)		0.11 acre
2. Temporary (access)		2,288 sf (0.05 acre)		0.05 acre
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Dartmouth, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D25	
Impact Area (number/name)	
3/27/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 41 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mha Satre

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:	-
Class:	Emergent	Subclass:	Persistent
Hydrology/Wa	ter Regime		
Permaner	ntly flooded	Saturated	
Intermitter	ntly exposed	Temporarily	flooded
Semi-perr	nanently flooded		[,] flooded
Seasonall	y flooded	Artificially flo	oded

- 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)
 - "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.

Community Name		
Vegetation Description		

Physical Description



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	10	0	0	90
			comprise 10% or more of	Woody vines the vegetative	Mosses cover in ea	
	Strata		Plant Species	Strata		Plant Species
	Shrub	(Rubus allegheniensis 10%)*	Herb		Scirpus cyperinus (40%)*
	Shrub		Spiraea alba (<5%)	Herb		Solidago spp. (40%)*
	Shrub		Lyonia ligustrina (<5%)	Herb		Dryopteris intermedia (15%)
	Shrub		Pinus strobus (<5%)	Herb		Osmundastrum
	Shrub		Clethra alnifolia (<5%)	Herb		cinnamomeum (5%) Typha latifolia (<5%)
	Shrub		Spiraea tomentosa (<5%)			
C.	Inventory (Soils)					
	slopes		wn muck, 0 to 1 percent	Very Poorly Drainage Class 15"		
	Oi (0"-4"), Oa (4' Texture (upper part) 4"			Depth		
	Depth to Water Table	е				
III.	Important Habit	tat Feat	ures (complete for all res	source areas)		
	If the following hat	bitat char	acteristics are present, descr	ibe & quantify the	em on a sepa	arate sheet & attach.
	Wildlife Food					
	Important Wetlar	nd/Aqua	tic Food Plants (smartwee	ds, pondweeds	s, wild rice,	bulrush, wild celery)
	Abundant		Present	🛛 Absent		
	Important Upland	d/Wetlar	nd Food Plants (hard mast	and fruit/berry	producers)	
	Abundant		⊠ Present	Absent		
	Shrub thickets of	r stream	beds with abundant earth	worms (America	an woodcoo	ck)
			Present	🛛 Absent		
	Shrub and/or he	rbaceou	s vegetation suitable for v	eery nesting		
			Present	🛛 Absent		



Number of trees	(live or dead) > 30" DBI	4:	0		
	ity) of Standing Dead T		ntial for cavities	and nerches).	
0				. ,	
6-12" dbh	12-18" dbh		0 18-24" dbh	> 2	4" dbh
Number of Tree	Cavities in trunks or limb	os of:			
0					
6-12" diameter (e.g., 1 0	tree swallow, saw whet owl, s	creech owl, b	oluebird, other song	birds)	
12-18" diameter (e.g.	, hooded merganser, wood du	ıck, common	goldeneye, mink)		
0 >18" diameter (e.g., ho	oded merganser, wood duck, c	ommon golde	neye, common merg	anser, barred owl, mi	nk, raccoon, fisher)
Small mammal b	urrows				
Abundant	🛛 Present		🖂 Absent		
_	_				
Cover/Perches/B	asking/Denning/Nesting	j Habitat			
🛛 Dense herba	ceous cover (voles, sma	all mamma	lls, amphibians	& reptiles)	
☑ Large woody	debris on the ground (s	small mam	mals, mink, amp	ohibians & reptil	es)
Rocks, crevid	ces, logs, tree roots or h	ummocks	under water's s	urface (turtles, s	snakes, frogs)
	ces, fallen logs, overhar ce (turtles, snakes, frog	0 0			
Rock piles, c	revices, or hollow logs s	suitable for	:		
otter	🗌 mink 🗌	porcupine	bear	bobcat	turkey vultu
	standing vegetation ove isher, flycatchers, ceda			good visibility o	of open water (e.c
Depressions that	may serve as seasona	l (vernal/au	utumnal) pools		
	Present		Absent		
Standing water p	resent at least part of th	e growing	season, suitabl	e for use by	
Breeding am	phibians	N N	on-breeding am	phibians (foragi	ng, re-hydration)
Turtles		🗌 Fo	oraging waterfov	wl	
	nucks or mats, moss-co ng water in spring (four			gs, overhanging	or directly adjace
	Present		Absent		



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form (

art 2. Field Data Fo	orm (continued)		
Important habitat charact	eristics (if present, desc	ribe and quantify t	hem on a separate sheet)
Medium to large (> 6"), fla for spring & two-lined sala		(cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on ba salamanders and nesting			eds (cover for stream
	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 (ba	nk swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open wa	ater in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-dr	ained, sandy soil suitabl	e for turtle nesting	I
	Present	🛛 Absent	
Wildlife dens/nests (if pre	esent, describe & quantif	y them on the bac	k 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



ppendix B: Detailed Wildlife Habitat Eva	aluation	
art 2. Field Data Form (continued)		
Project area is within:		
100' of beaver, mink or otter den, bank swall	low 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 & quant	tify them on a separate sheet)	
Emergent wetland vegetation at least seasonally green heron, black-crowned night heron, king rai		n (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least (mallard, American bittern, sora, common snipe,		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	n) 🗌 Present	🛛 Absent
Cattail emergent wetland vegetation at least sea	sonally flooded during the growing	season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	n) 🗌 Present	🖂 Absent
Fine-leafed emergent vegetation (grasses and so season (common snipe, spotted sandpiper, sedget		during the growing
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	n) 🗌 Present	🛛 Absent
. Landscape Context		
Habitat Continuity (if present, describe the land importance for area-sensitive species)	lscape context on a separate shee	t and its
Is the impact area part of an emergent marsh at least	1.0 acre in size?	🛛 No
(marsh and waterbirds)	2.0 acres in size?	🖂 No
	5.0 acres in size?	🖂 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

Δ.	nnendix	в∙ г	Detailed	Wildlife	Habitat	Evaluation
	ppendix	р. г	Jelaneu	WIIUIIIE	Παρπαι	

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 (littl	le 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 significan	t chemical	contamination
--	--	--	----------	---------------	------------	---------------

- Evidence of significant levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

Disturbance from roads or highways	🛛 Other human disturbance
------------------------------------	---------------------------

Is the site the only	/ resource area in th	e vicinity of ar	n otherwise dev	eloped 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev

Acushnet to Fall River Reliability Project	
Project Name	
Dartmouth, MA. Bordering Vegetated Wetland D25-CM 68	
Location	
Please refer to breakdown of impacts below.	12/01/2021
Size of Area Being Impacted	Date

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

Name 1. Permanent (structure footprint) 2. Temporary (work pad)	Waterbody/ Waterway	Wetland <u>48 sf</u> 3757 sf (0.09 acre)	Upland*	Total Area <u>48 sf</u> 0.09 acre
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Dartmouth, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D25	
Impact Area (number/name)	
3/27/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 41 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy Lake

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:			
Class:	Scrub-Shrub/Emergent	Subclass:	Broad-leaved Deciduous/Persistent		
Hydrology/Wa	ater Regime				
Permane	ntly flooded	Saturated			
Intermitte	ntly exposed	Temporarily flooded			
Semi-peri	manently flooded		Intermittently flooded		
Seasonal	ly flooded	Artificially flooded			
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. (<u>Department of Fish & Game Website</u>)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	30	0	0	65		
		Trees (> 2	- / (-	, ,	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 <u>Shrub</u> Shrub		Plant Species	Strata		Plant Species		
			Clethra alnifolia (20%)*	Herb		Scirpus cyperinus (20%)*		
			Spiraea tomentosa (10%)*	Herb		Solidago spp. (35%)'		
	Shrub		Spiraea alba (5%)	Herb		Carex sp. (10%)		
	Shrub		Pinus strobus (<5%) Herb		Osmundastrum cinnamomeum (5%)		
	Shrub		Salix spp. (<5%)					
	Shrub		Spiraea tomentosa (<5%)					
C.	Inventory (Soils	;)						
	Soil Survey Unit: Whitman fine sandy loam, 0 to 3 percent slopes, extremely stony			to Very Poorly Drainage Class				
	Oi (0"-3"), Oa (3"-10"), mkSiL (10"-11")			11" Frozen				
	Texture (upper part) 11"			Depth				
	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)							

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

Present

Absent



Wildlife Habitat Protection Guidance

Number of trees (liv	/e or dead) > 3	30" DBH:	0		
Number (or density) of Standing [Dead Trees (po	otential for cavities	and perches):	
0	1		0	0	
6-12" dbh	12-18" d	bh	0 18-24" dbh	> 2	4" dbh
Number of Tree Ca	vities in trunks	s or limbs of:			
0 6-12" diameter (e.g., tree	e swallow, saw wł	net owl, screech ov	wl, bluebird, other song	birds)	
12-18" diameter (e.g., ho	ooded merganser	, wood duck, comr	non goldeneye, mink)		
0 >18" diameter (e.g., hood	ed merganser woo	od duck, common av	oldeneve, common mera	anser barred owl m	ink raccoon fisher
	C	d dder, common g	Sideneye, common merg	anser, barred owi, m	
Small mammal burn	lows				
Abundant	🖂 F	Present	Absent		
Cover/Perches/Bas	king/Denning/	Nesting Habita	ıt		
Dense herbace	ous cover (vol	les, small mam	mals, amphibians	& reptiles)	
🛛 Large woody de	ebris on the gr	ound (small m	ammals, mink, amı	ohibians & repti	les)
Rocks, crevices	s, logs, tree ro	ots or hummoo	ks under water's s	urface (turtles,	snakes, frogs)
			anches or hummoong birds, wood duc		
Rock piles, cre	vices, or hollow	w logs suitable	for:		
otter	mink	porcupir	ne 🗌 bear	bobcat	🗌 turkey v
Live or dead sta osprey, kingfish			ng water or offering ngs)	good visibility	of open water
Depressions that m	ay serve as se	easonal (verna	l/autumnal) pools		
	🗌 F	Present	🛛 Absent		
Standing water pres	sent at least p	art of the growi	ng season, suitabl	e for use by	
Breeding amph	ibians	\boxtimes	Non-breeding am	phibians (foragi	ng, re-hydratio

Present Absent



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

č	art 2. Field Data For	m (continued)		
	Important habitat characteri	stics (if present, describ	e and quantify t	hem on a separate sheet)
	Medium to large (> 6"), flat for spring & two-lined salam		over for stream	salamanders and nesting habitat
		Present	🛛 Absent	
	Flat rocks and logs on bank salamanders and nesting ha			eds (cover for stream
		Present	🛛 Absent	
	Underwater banks of fine si	It and/or clay (beaver, m	nuskrat, otter)	
		Present	🛛 Absent	
	Undercut or overhanging ba	anks (small mammals, m	nink, weasels)	
		Present	Absent	
	Vertical sandy banks (bank	swallow, kingfisher)		
		Present	🛛 Absent	
	Areas of ice-free open wate	er in winter		
		Present	🛛 Absent	
	Mud flats			
		Present	🛛 Absent	
	Exposed areas of well-drain	ned, sandy soil suitable f	for turtle nesting	
		Present	Absent	
	Wildlife dens/nests (if prese	nt, describe & quantify t	hem on the bac	k 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



opendix B: Detailed Wildlife Habitat Evalu	lation	
art 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 flo green heron, black-crowned night heron, king rail, \		on (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, re		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
Cattail emergent wetland vegetation at least season	nally flooded during the growing	g season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🖂 Absent
Fine-leafed emergent vegetation (grasses and sede season (common snipe, spotted sandpiper, sedge season (common snipe, spotted sandpiper, sedge season (common snipe, spotted sandpiper, sedge season seas		d during the growing
Flooded > 5 cm	Present	🖂 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
Landscape Context		
Habitat Continuity (if present, describe the landsc importance for area-sensitive species)	ape context on a separate she	et and its
Is the impact area part of an emergent marsh at least	1.0 acre in size? Ves	🖂 No
(marsh and waterbirds)	2.0 acres in size?	🖂 No
	5.0 acres in size?	🛛 No
	10.0 acres in size?	🖂 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

Δ.	nnendix	в∙ г	Detailed	Wildlife	Habitat	Evaluation
	ppendix	р. г	Jelaneu	WIIUIIIE	Παρπαι	

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	f 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 (littl	le 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 significan	t chemical	contamination
--	--	--	----------	---------------	------------	---------------

- Evidence of significant levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

Disturbance from roads or highways	🛛 Other human disturbance
------------------------------------	---------------------------

Is the site the only	y resource area in	the vicinit	y 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 1. Summary Sheet

Important: When
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use only the tab
key to move your
cursor - do not
use the return
kev.

Project Name	
Dartmouth, MA. Upland Riverfront Area (RFA) of Perennial Stream	is SD23 and SD23A-CM 73
Location	
Please refer to breakdown of temporary impacts below.	12/08/2021

Name	Waterbody/ Waterway	Wetland	Upland*	Total Area
1. Temporary (work pad)		7,962 sf (0.18		0.18 acre
		acre)		
2.				
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))

Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Dartmouth, MA	
Project Location (from NOI page 1)	
Upland RFA-CM 73	
Impact Area (number/name)	
3/27/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 41 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/08/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy Lake

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:	Subsystem:
Class:	Subclass:
Hydrology/Water Regime	
Permanently flooded	Saturated
Intermittently exposed	Temporarily flooded
Semi-permanently flooded	Intermittently flooded
Seasonally flooded	Artificially flooded
For Riverfront or Bordering Land Subject to Floodin Use a terrestrial classification system such as a "Classification of the Natural Communities of Massa	
Kearsley, MA DFW NHESP, Westborough, MA. Jul	
•	Distribution" by Richard M. DeGraaf and Deborah D. xperiment Station. General Technical Report NE-108.
Cultural Grassland Community Name	

Grassland dominated by non-native grasses Vegetation Description Non-native grasses requiring sowing and maintenance Physical Description

2.



B.	Inventory (Pl	ant comm	unitv)					
			• ·	0	0	0		95
	% Cover:		. ,	0 Shrubs (< 20')	•	Mosses		Herbaceous
	Plant Lists (s a dominant p	pecies that lant specie	t comprises for the	se 10% or more strata):	of the vegetative	e cover in ea	ch strata;	"*" designate
	Strata		Plant	Species	Strata		Plant \$	Species
	Herb		Grass	spp. (95%)*				
			01833	3pp. (3570)				
).	Inventory (So							
	Soil Survey L			/ sand, 3 to 8	Excessively Drainage Clas			
	SaL(0"-5"), L Texture (upper p	Sa (5"-11"			11"			
	No water tab		d		Depth			
	Depth to Water	Table						
I I .	Important H	abitat Fea	tures (co	omplete for all	resource areas)			
	If the following	habitat cha	aracteristic	s are present, de	escribe & quantify th	nem on a sepa	arate shee	t & attach.
	Wildlife Food	l						
	Important We	etland/Aqu	atic Food	l Plants (smartv	veeds, pondweed	ls, wild rice,	bulrush, v	wild celery)
	Abundan	ıt		Present	🛛 Absent			
	Important Up	land/Wetla	and Food	Plants (hard m	ast and fruit/berry	y producers)		
	Abundan	it		Present	🛛 Absent			
	Shrub thicket	ts or strea	mbeds wi	th abundant ea	rthworms (Americ	can woodcoo	ck)	
				Present	🛛 Absent			
	Shrub and/or	herbaceo	us vegeta	ation suitable fo	or veery nesting			



Number of tree	es (live or dead) > 30"	DBH:	0		
Number (or der	nsity) of Standing Dea	ad Trees (pot	ential for cavities	and perches)	:
0	0	ü	0	(0
6-12" dbh	12-18" dbh		18-24" dbh	;	> 24" dbh
Number of Tree	e Cavities in trunks or	· limbs of:			
0					
6-12" diameter (e.g 0	g., tree swallow, saw whet	owl, screech owl,	, bluebird, other song	lbirds)	
-	.g., hooded merganser, wo	od duck, commo	on goldeneye, mink)		
>18" diameter (e.g.,	hooded merganser, wood d	uck, common gold	leneye, common merç	anser, barred owl,	mink, raccoon, fishe
Small mammal	burrows				
Abundant	🖂 Pre	sent	Absent		
		- (
Cover/Perches	/Basking/Denning/Ne	sting Habitat			
🛛 Dense hert	baceous cover (voles	, small mamm	nals, amphibians	& reptiles)	
Large wood	dy debris on the grou	nd (small mar	mmals, mink, am	phibians & rep	otiles)
Rocks, crev	vices, logs, tree roots	or hummock	s under water's s	surface (turtles	s, snakes, frogs)
— <u> </u>	vices follon logs ave		nches or hummo	cks at, or with	
	face (turtles, snakes,	trogs, wading	g birds, wood due	ck, mink, racco	oon)
water's sur				ck, mink, racco	oon)
water's sur	face (turtles, snakes,		Dr:	ck, mink, racco	
water's sur Rock piles, otter Live or dea	face (turtles, snakes, , crevices, or hollow lo	ogs suitable fo	pr: bear water or offering	bobcat	turkey v
water's sur Rock piles, otter Live or dea osprey, kin	face (turtles, snakes, , crevices, or hollow lo mink ad standing vegetatior	ogs suitable fo porcupine overhanging sedar waxwing	or: bear g water or offerin gs)	bobcat	turkey v
water's sur Rock piles, otter Live or dea osprey, kin	face (turtles, snakes, , crevices, or hollow lo mink ad standing vegetation gfisher, flycatchers, c hat may serve as seas	ogs suitable fo porcupine overhanging sedar waxwing	or: bear g water or offerin gs)	bobcat	turkey v
water's sur Rock piles, otter Live or dea osprey, kin Depressions th	face (turtles, snakes, , crevices, or hollow lo mink ad standing vegetation gfisher, flycatchers, c hat may serve as seas	ogs suitable fo porcupine n overhanging edar waxwing sonal (vernal/a sent	pr: bear water or offering gs) autumnal) pools X Absent	☐ bobcat g good visibilit	turkey v
water's sur Rock piles, otter Live or dea osprey, kin Depressions th	face (turtles, snakes, , crevices, or hollow lo mink ad standing vegetation gfisher, flycatchers, c hat may serve as seas Present at least part	ogs suitable for porcupine n overhanging edar waxwing sonal (vernal/a sent of the growin	pr: bear water or offering gs) autumnal) pools X Absent	☐ bobcat g good visibilit le for use by	U turkey water
water's sur Rock piles, otter Live or dea osprey, kin Depressions th Standing water	face (turtles, snakes, , crevices, or hollow lo mink ad standing vegetation gfisher, flycatchers, c hat may serve as seas Present at least part	ogs suitable for porcupine n overhanging edar waxwing sonal (vernal/a sent of the growin	pr: bear g water or offering gs) autumnal) pools Absent g season, suitab	bobcat g good visibilit le for use by nphibians (fora	U turkey water



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

ð	art 2. Field Data For	m (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 habitation for spring & two-lined salamanders)				
		Present	🛛 Absent		
	Flat rocks and logs on bank salamanders and nesting ha			eds (cover for stream	
		Present	🛛 Absent		
	Underwater banks of fine si	It and/or clay (beaver, m	nuskrat, otter)		
		Present	🛛 Absent		
	Undercut or overhanging ba	anks (small mammals, m	nink, weasels)		
		Present	🛛 Absent		
	Vertical sandy banks (bank	swallow, kingfisher)			
		Present	🛛 Absent		
	Areas of ice-free open wate	er in winter			
		Present	🛛 Absent		
	Mud flats				
		Present	Absent		
	Exposed areas of well-drain	ned, sandy soil suitable f	for turtle nesting	I	
		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	



Appendix B: Detailed Wildlife Habitat Eva	aluation			
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 & quan	tify them on a separate sheet)			
Emergent wetland vegetation at least seasonally green heron, black-crowned night heron, king ra		(wood duck,		
Flooded > 5 cm	Present	Absent		
Flooded > 25 cm (pied-billed grebe)	Present	Absent		
Persistent emergent wetland vegetation at least (mallard, American bittern, sora, common snipe,				
Flooded > 5 cm	Present	Absent		
Flooded > 25 cm (least bittern, common moorhe	en) Present	🛛 Absent		
Cattail emergent wetland vegetation at least sea	asonally flooded during the growing	season		
Flooded > 5 cm (marsh wren)	Present	Absent		
Flooded > 25 cm (least bittern, common moorhe	en)	Absent		
Fine-leafed emergent vegetation (grasses and s season (common snipe, spotted sandpiper, sede		during the growing		
Flooded > 5 cm	Present	Absent		
Flooded > 25 cm (least bittern, common moorhe	en) 🗌 Present	🛛 Absent		
7. Landscape Context				
 Habitat Continuity (if present, describe the land importance for area-sensitive species) 	dscape context on a separate sheet	and its		
Is the impact area part of an emergent marsh at least	1.0 acre in size?	🛛 No		
(marsh and waterbirds)	2.0 acres in size? Yes	🛛 No		
	5.0 acres in size? Yes	🛛 No		
	10.0 acres in size?	🖾 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:	Dotailad	Wildlifa	Habitat	Evaluation
	Detaileu	WIIUIII E	Παρπαι	

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 (littl	le 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 levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev.

Acushnet to Fall River Reliability Project	
Project Name	
Dartmouth, MA. Bordering Vegetated Wetland D22-CM 74	
Location	
Please refer to breakdown of temporary impacts below.	12/01/2021
Size of Area Being Impacted	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. Temporary (work pad)		665 sf (0.02		0.02 acre
<u>_</u>		acre)		
2.				
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Dartmouth, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D22	
Impact Area (number/name)	
3/27/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 41 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy date

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	Subs	ystem:	
Class:	Scrub-Shrub/Emergent	Subc	lass:	Broad-leaved Deciduous/Persistent
Hydrology/Wa	ater Regime			
Permaner	ntly flooded	🖂 s	Saturated	
	ntly exposed	П	emporarily f	flooded
Semi-perr	manently flooded	🗌 Ir	ntermittently	flooded
Seasonal	ly flooded	□ A	Artificially floo	oded
Use a terr	or Bordering Land Subject to Flooding estrial classification system such as o	ne of t	he two listed	d 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. (<u>Department of Fish & Game Website</u>)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

В.	inventory (Plant	community)				
	% Cover:	0 Trees (> 20')	50 Shrubs (< 20')	0 Woody vines	0 Mosses	50 Herbaceous
		()	e 10% or more of			n strata; "*" designates
	Strata	Plant S	Species	Strata		Plant Species
	Shrub	Clethra (50%)	a alnifolia *	Herb		Andropogon glomeratus (30%)*
	Shrub	Spirae (<5%)	a tomentosa	Herb		Carex sp. (10%)*
	Shrub	()	ea alba (<5%)	Herb		Rubus hispidus (5%)
	Shrub	Rubus alle (<5%)	gheniensis	Herb		Juncus effusus (5%)
	Shrub	•	pp. (<5%)	Herb		Solidago sp. (<5%)
	Shrub	Vaccir	ium oosum (<5%)	Herb		mundastrum namomeum (<5%)
C.	Inventory (Soils)					
	Soil Survey Unit: Ridgebury fine sandy loam, 0 to 3 percent slopes, extremely stony Oi (0"-3"), mkSiL (3"-11") Texture (upper part)			Poorly Draine Drainage Class 11" Depth	d	
	11" Depth to Water Tabl					
III.	Important Habi	tat Features (co	mplete for all re	source areas)		
	If the following ha	bitat characteristics	are present, desc	ribe & quantify ther	n on a separ	ate sheet & attach.
	Wildlife Food					
	Important Wetla	nd/Aquatic Food	Plants (smartwee	eds, pondweeds,	wild rice, b	ulrush, wild celery)
	Abundant		Present	🛛 Absent		
	Important Uplan	d/Wetland Food	Plants (hard mas	t and fruit/berry p	oroducers)	
	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



 of Standing Dead 	Trees (pote	ential for cavities	and perches):	
0		0	0	
12-18" dbh		18-24" dbh	> 2	24" dbh
wities in trunks or li	mbs of:			
e swallow, saw whet ow	I, screech owl,	bluebird, other songl	pirds)	
ooded merganser, wood	I duck, commo	n goldeneye, mink)		
ed mergenser, wood duc		lanava, common marg	anser barred owl m	ink raccoon fisher
	t, common gold	eneye, common merga	anser, baneu owi, m	
rows				
🛛 Prese	nt	Absent		
sking/Denning/Nest	ing Habitat			
ous cover (voles, s	mall mamm	als, amphibians	& reptiles)	
ebris on the ground	l (small mar	nmals, mink, amp	ohibians & repti	les)
s, logs, tree roots o	r hummock:	s under water's s	urface (turtles,	snakes, frogs)
vices, or hollow log	s suitable fo	or:		
mink] porcupine	bear	bobcat	🗌 turkey v
			good visibility	of open water
ay serve as seasor	nal (vernal/a	autumnal) pools		
Prese	nt	🛛 Absent		
sent at least part of	the growing	g season, suitabl	e for use by	
nibians		Non-breeding am	phibians (foragi	ing, re-hydrati
	12-18" dbh avities in trunks or ling e swallow, saw whet ow ooded merganser, wood ooded merganser, wood duck rows	12-18" dbh avities in trunks or limbs of: e swallow, saw whet owl, screech owl, ooded merganser, wood duck, commo led merganser, wood duck, common gold rows Present sking/Denning/Nesting Habitat eous cover (voles, small mamm ebris on the ground (small mam s, logs, tree roots or hummocks s, fallen logs, overhanging brander e (turtles, snakes, frogs, wading vices, or hollow logs suitable for mink porcupine anding vegetation overhanging her, flycatchers, cedar waxwing her, sent at least part of the growing	12-18" dbh 18-24" dbh avities in trunks or limbs of: e swallow, saw whet owl, screech owl, bluebird, other songle ooded merganser, wood duck, common goldeneye, mink) led merganser, wood duck, common goldeneye, common merga rows □ Present □ Absent sking/Denning/Nesting Habitat eous cover (voles, small mammals, amphibians of the ground (small mammals, mink, amples, logs, tree roots or hummocks under water's siss, fallen logs, overhanging branches or hummock (turtles, snakes, frogs, wading birds, wood duc vices, or hollow logs suitable for: □ mink □ porcupine anding vegetation overhanging water or offering anding vegetation overhanging water or offering ner, flycatchers, cedar waxwings) nay serve as seasonal (vernal/autumnal) pools □ Present ☑ Absent	12-18" dbh 18-24" dbh > 2 avities in trunks or limbs of:



Appendix B: Detailed	Wildlife Habitat Eva	aluation	
Part 2. Field Data F			
Important habitat charac	teristics (if present, des	cribe and quantify t	hem on a separate sheet)
	lat rocks within a stream		salamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on b salamanders and nestin			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fin	e silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhanging	g banks (small mammals	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (ba	ank swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open w	vater in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-d	rained, sandy soil suitab	le for turtle nesting	I
	Present	🛛 Absent	
<u>Wildlife dens/nests (if pr</u>	esent, describe & quant	ify them on the bac	k 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



art 2. Field Data Form (continued)	luation	
Project area is within:		
100' of beaver, mink or otter den, bank swalld	ow 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 & quanti	fy them on a separate sheet)	
Emergent wetland vegetation at least seasonally green heron, black-crowned night heron, king rail,		on (wood duck,
Flooded > 5 cm	Present	🖂 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least s (mallard, American bittern, sora, common snipe, r		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent
Cattail emergent wetland vegetation at least seas	onally flooded during the growing	g season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen) Present	🖂 Absent
Fine-leafed emergent vegetation (grasses and se season (common snipe, spotted sandpiper, sedge		d during the growing
Flooded > 5 cm	Present	🖂 Absent
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent
Landscape Context		
Habitat Continuity (if present, describe the lands importance for area-sensitive species)	scape context on a separate shee	et and its
Is the impact area part of an emergent marsh at least	1.0 acre in size?	🖂 No
(marsh and waterbirds)	2.0 acres in size? Ves	🛛 No
	5.0 acres in size?	🖂 No
	10.0 acres in size?	🖂 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	f 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 (littl	le 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
E 11001100	or orgrinitourit	onionnioun	oomannination

- Evidence of significant levels of dumping
- Evidence of significant erosion or sedimentation problems

Significant invasion of exotic plants (e.g., purple loosestrife, *Phragmites*, glossy buckthorn)

Disturbance from roads or highways	🛛 Other human disturbance
------------------------------------	---------------------------

Is the site the only	y resource area in	n 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev.

Acushnet to Fall River Reliability Project	
Project Name	
Dartmouth, MA. Bordering Vegetated Wetland D21-AR	
Location	
Please refer to breakdown of temporary impacts below.	12/01/2021
Size of Area Being Impacted	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. Temporary (access)		5,769 sf (0.13		0.13 acre
		acre)		
2.				
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Dartmouth, MA			
Project Location (from NOI page 1)			
Bordering Vegetated Wetland D21			
Impact Area (number/name)			
3/27/2019			
Date(s) of Site Visit(s) and Data Collection			
Sunny, 41 degrees for temperature			
Weather Conditions During Site Visit (if snow cover, include depth)			
M. Lamothe	12/01/2021		
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed		

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

mhy date

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:	-				
Class:	Emergent	Subclass:	Persistent				
Hydrology/Water Regime							
Permaner	ntly flooded	Saturated					
	ntly exposed	Temporarily	flooded				
Semi-perr	manently flooded		/ flooded				
Seasonal	ly flooded	Artificially flo	oded				
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)
- "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.

Community Name		
Vegetation Description		
Physical Description		
Vegetation Description Physical Description	 	

2.



Wildlife Habitat Protection Guidance

Δnner	ndix B·	Detailed	Wildlife	Habitat	Evaluation
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Part 2. Field Data Form (continued)

B. Inventory (Plant community) Open water is 15%

	% Cover:	0	15 20') Shrubs (< 20')	0 Woody vines	0 Mosses	70 Herbaceous	
		Lists (species that comprise 10% or r ninant plant species for the strata):		•			
	Strata		Plant Species	Strata		Plant Species	
	Shrub		Spiraea alba (10%)*	Herb		Carex sp. (70%)*	
	Shrub		Spiraea tomentosa (5%)	Herb		Solidago spp. (<5%)	
	Shrub		Acer rubrum (<5%)	Woody Vine		Smilax rotunifolia (<5%)	
	Shrub		Eubotrys racemosa (<5%)				
	Shrub		<u> </u>				
	Shrub						
C.	Inventory (Soils)						
	Soil Survey Unit: Whitman fine sandy loam, 0 to 3 percent slopes, extremely stony Oi (0"-2"), Oa (3"-10"), GrSaL (2"-10") Texture (upper part)		Very Poorly D Drainage Class 10" Depth	Drained			
	0" Depth to Water Table	<u>م</u>					
ш.			ires (complete for all res	ource areas)			
	-		acteristics are present, descri		n on a sepa	rate sheet & attach.	
	Wildlife Food						
	Important Wetlar	nd/Aquat	ic Food Plants (smartwee	ds, pondweeds,	wild rice, k	oulrush, wild celery)	
	Abundant		Present	🛛 Absent			
	Important Uplan	d/Wetlan	d Food Plants (hard mast	and fruit/berry p	producers)		
	Abundant		Present	🛛 Absent			
	Shrub thickets o	r streamt	peds with abundant earthy	vorms (America	n woodcoc	k)	
			Present	🛛 Absent			
	Shrub and/or he	rbaceous	s vegetation suitable for ve	eery nesting			
			Present	🛛 Absent			



Number of trees	(live or dead) > 30'	' DBH:	0		
Number (or dens	ity) of Standing De	ad Trees (pote	ntial for cavities	and perches):	
0	2		0	0	
6-12" dbh	12-18" dbh		18-24" dbh	>	24" dbh
Number of Tree (Cavities in trunks o	r limbs of:			
0					
6-12" diameter (e.g., 0	tree swallow, saw whet	owl, screech owl,	bluebird, other song	birds)	
	, hooded merganser, w	ood duck, commor	n goldeneye, mink)		
0 >18" diameter (e.g., ho	ooded merganser, wood o	duck. common aolde	eneve. common merc	anser. barred owl. m	nink. raccoon. fishe
Small mammal b					,
_					
Abundant		esent	🛛 Absent		
Cover/Perches/B	asking/Denning/Ne	esting Habitat			
Dense herba	ceous cover (voles	s, small mamma	als, amphibians	& reptiles)	
Large woody	debris on the grou	ind (small marr	nmals, mink, am	phibians & rept	iles)
Rocks, crevid	ces, logs, tree roots	s or hummocks	under water's s	surface (turtles,	snakes, frogs
	ces, fallen logs, ove ce (turtles, snakes				
Rock piles, c	revices, or hollow l	ogs suitable fo	r:		
otter	mink	porcupine	bear	bobcat	🗌 turkey
	standing vegetatio	n overhanging	water or offering	g good visibility	of open wate
	isher, flycatchers, o				
osprey, kingf	isher, flycatchers, o may serve as sea	cedar waxwing	s)		
osprey, kingf	may serve as sea	cedar waxwing	s)		
osprey, kingf Depressions that	may serve as sea	cedar waxwing sonal (vernal/a esent	s) utumnal) pools	e for use by	
osprey, kingf Depressions that	may serve as sea	cedar waxwing sonal (vernal/a esent t of the growing	s) utumnal) pools	-	ing, re-hydrat



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation Part 2. Field Data Form

č	art 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 hab 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 ba	anks (small mammals, m	nink, weasels)			
		Present	Absent			
	Vertical sandy banks (bank	swallow, kingfisher)				
		Present	🛛 Absent			
	Areas of ice-free open wate	er in winter				
		Present	🛛 Absent			
	Mud flats					
		Present	🛛 Absent			
	Exposed areas of well-drain	ned, sandy soil suitable f	for turtle nesting			
		Present	Absent			
	Wildlife dens/nests (if prese	nt, describe & quantify t	hem on the bac	k 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		



Appendix B: Detailed Wildlife Habitat Ev Part 2. Field Data Form (continued)	valuation							
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 nest¹ 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 leas (mallard, American bittern, sora, common snipe		
						Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorh	nen) 🗌 Present	🛛 Absent						
Cattail emergent wetland vegetation at least se	easonally flooded during the growing	ng season						
Flooded > 5 cm (marsh wren)	Present	🛛 Absent						
Flooded > 25 cm (least bittern, common moorh	nen) 🗌 Present	🛛 Absent						
Fine-leafed emergent vegetation (grasses and season (common snipe, spotted sandpiper, season sandpiper, season (common snipe, spotted sandpiper, season sandpiper, season (common snipe, spotted sandpiper, season sandpiper, s		d during the growing						
Flooded > 5 cm	⊠ Present	Absent						
Flooded > 25 cm (least bittern, common moorh	nen) 🛛 Present	Absent						
/. Landscape Context								
 Habitat Continuity (if present, describe the lar importance for area-sensitive species) 	ndscape context on a separate she	eet and its						
Is the impact area part of an emergent marsh at leas	st 1.0 acre in size? 🛛 Yes	i 🗌 No						
(marsh and waterbirds)	2.0 acres in size?	s 🛛 No						
	5.0 acres in size?	s 🛛 No						
	10.0 acres in size? 🔲 Yes	s 🛛 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

Δ.	nnendix	в∙ г	Detailed	Wildlife	Habitat	Evaluation
	ppendix	р. г	Jelaneu	WIIUIIIE	Παρπαι	

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	f 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev.

Acushnet to Fall River Reliability Project	
Project Name	
Dartmouth, MA. Bordering Vegetated Wetland D20-PP	
Location	
Please refer to breakdown of temporary impacts below.	12/01/2021
Size of Area Being Impacted	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. Temporary (work pad and access)		_ 5,725 sf (0.13 acre)		0.13 acre
2.		_		
3.				
4.				
5.				
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for the Project which also includes a photographic log.

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.

mhy Lake

M. Lamothe

Typed or Printed Name

Signature of Wildlife Specialist (per 310 CMP 10 60 (1) (b))



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Dartmouth, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D20	
Impact Area (number/name)	
3/27/2019	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 41 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	12/01/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

ming date

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:	-				
Class:	Emergent/Scrub-Shrub	Subclass:	Persistent/Broad-leaved Deciduous				
Hydrology/Water Regime							
Permaner	ntly flooded	Saturated					
	ntly exposed	Temporarily flooded					
Semi-perr	manently flooded	Intermittently flooded					
Seasonall	ly flooded	Artificially flooded					
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)
- "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.

Community Name		
Vegetation Description		
Physical Description		

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	0	> 20') 35	0	0	<u>65</u>		
	Plant Lists (spec a dominant plan		comprise 10% or more of	Woody vines the vegetative c	Mosses over in eac	Herbaceous h strata; "*" designates		
	Strata		Plant Species	Strata		Plant Species		
	Shrub		Clethra alnifolia (25%)*	Herb		Andropogon glomeratus (60%)*		
	Shrub		Rubus allegheniensis (10%)*	Herb		Carex sp. (10%)		
	Shrub		Spiraea tomentosa (5%)	Herb		Osmundastrum cinnamomeum (10%)		
	Shrub		Lyonia ligustrina (<5%)	Herb		Scirpus cyperinus (<5%)		
	Shrub		Vaccinium corymbosum (<5%)	Herb				
	Shrub			Herb				
C.	Inventory (Soils)							
	Soil Survey Unit: Woodbridge fine sandy loam, 0 to 8 percent slopes, extremely stony Oi (0"-2"), Oa (2"-5"), mkSiL (5"-8"), Gr Sand (8"- 13"_			Moderately W Drainage Class 13" Depth	/ell- Draine	d		
	4"							
III.	Depth to Water Table 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 Uplan	Important Upland/Wetland Food Plants (hard mast and fruit/berry producers)						
	Abundant		⊠ Present	Absent				
	Shrub thickets or streambeds with abundant earth			vorms (America	n woodcocl	<)		
			Present	🛛 Absent				
	Shrub and/or he	rbaceou	us vegetation suitable for ve	ery nesting				
			Present	🛛 Absent				



Number of trees	Number of trees (live or dead) > 30" DBH:		0		
Number (or dens	sity) of Standing Dead Tr	rees (potential for cavities	and perches):		
0	0	0	0		
6-12" dbh	12-18" dbh	18-24" dbh	> 2	24" dbh	
Number of Tree	Cavities in trunks or limb	os of:			
0					
6-12" diameter (e.g., 0	tree swallow, saw whet owl, s	creech owl, bluebird, other song	gbirds)		
-	., hooded merganser, wood du	uck, common goldeneye, mink)			
0 >18" diameter (e.g., br	ooded merganser wood duck o	ommon goldeneye, common merg	ranser barred owl m	ink raccoon fishe	
		Similar goldeneye, common merg	Janser, Darred Owi, In		
Small mammal b	ourrows				
Abundant	🛛 Present	Absent			
Cover/Perches/E	Basking/Denning/Nesting	j Habitat			
🛛 Dense herba	aceous cover (voles, sma	all mammals, amphibians	& reptiles)		
Large woody	/ debris on the ground (s	small mammals, mink, am	phibians & repti	les)	
Rocks, crevi	ces, logs, tree roots or h	ummocks under water's s	surface (turtles,	snakes, frogs)	
		nging branches or hummo s, wading birds, wood duo			
Rock piles, c	crevices, or hollow logs s	suitable for:			
otter	🗌 mink 🗌	porcupine 🗌 bear	bobcat	🗌 turkey v	
	standing vegetation ove fisher, flycatchers, cedar	erhanging water or offering waxwings)	g good visibility	of open water	
Depressions that	t may serve as seasonal	l (vernal/autumnal) pools			
	Present	🛛 Absent			
			le for use by		
Standing water p	present at least part of th	e growing season, suitab	ic for use by		
Standing water p	•	e growing season, suitab ⊠ Non-breeding arr		ing, re-hydrati	



Appendix B: Detailed	Wildlife Habitat Eva	aluation						
Part 2. Field Data F								
Important habitat charac	teristics (if present, des	cribe and quantify t	hem on a separate sheet)					
Medium to large (> 6"), f	Medium to large (> 6"), flat rocks within a stream (cover for stream salamanders and nesting habita for spring & two-lined salamanders)							
	Present	🛛 Absent						
Flat rocks and logs on b salamanders and nestin			eds (cover for stream					
	Present	🛛 Absent						
Underwater banks of fin	e silt and/or clay (beave	r, muskrat, otter)						
	Present	🛛 Absent						
Undercut or overhanging	g banks (small mammals	s, mink, weasels)						
	Present	🛛 Absent						
Vertical sandy banks (ba	ank swallow, kingfisher)							
	Present	🛛 Absent						
Areas of ice-free open w	vater in winter							
	Present	🛛 Absent						
Mud flats								
	Present	🛛 Absent						
Exposed areas of well-d	rained, sandy soil suitab	le for turtle nesting	I					
	Present	🛛 Absent						
<u>Wildlife dens/nests (if pr</u>	esent, describe & quant	ify them on the bac	k 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					



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 & quanti	fy them on a separate sheet)			
Emergent wetland vegetation at least seasonally green heron, black-crowned night heron, king rail,		on (wood duck,		
Flooded > 5 cm	Present	🖂 Absent		
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent		
Persistent emergent wetland vegetation at least s (mallard, American bittern, sora, common snipe, r				
Flooded > 5 cm	Present	🛛 Absent		
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent		
Cattail emergent wetland vegetation at least seas	onally flooded during the growing	g 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 grow season (common snipe, spotted sandpiper, sedge wren)				
Flooded > 5 cm	Present	🖂 Absent		
Flooded > 25 cm (least bittern, common moorhen)	Absent		
Landscape Context				
Habitat Continuity (if present, describe the lands importance for area-sensitive species)	scape context on a separate shee	et and its		
Is the impact area part of an emergent marsh at least	1.0 acre in size?	🖂 No		
(marsh and waterbirds)	2.0 acres in size? Ves	🛛 No		
	5.0 acres in size? 🗌 Yes	🛛 No		
	10.0 acres in size?	🖂 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

٩p	pendix B	: Detailed	Wildlife	Habitat	Evaluation
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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

- 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., purple loosestrife, *Phragmites*, glossy buckthorn)

Disturbance from roads or highways	🛛 Other human disturbance
------------------------------------	---------------------------

	Is the site the only			, , , ,	
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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.



Wildlife Habitat Protection Guidance

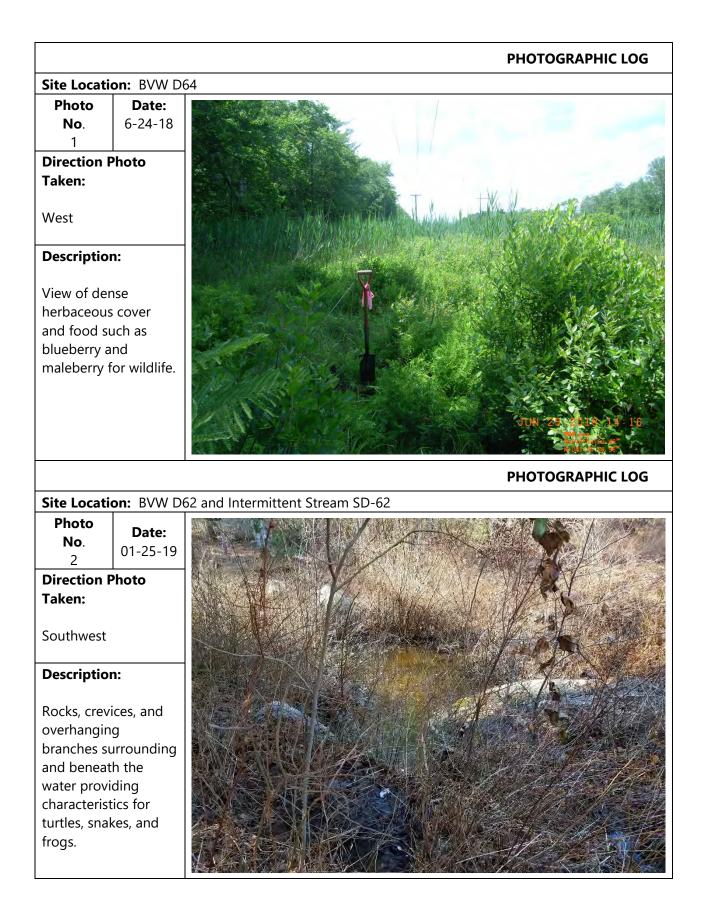
Appendix B: Detailed Wildlife Habitat Evaluation

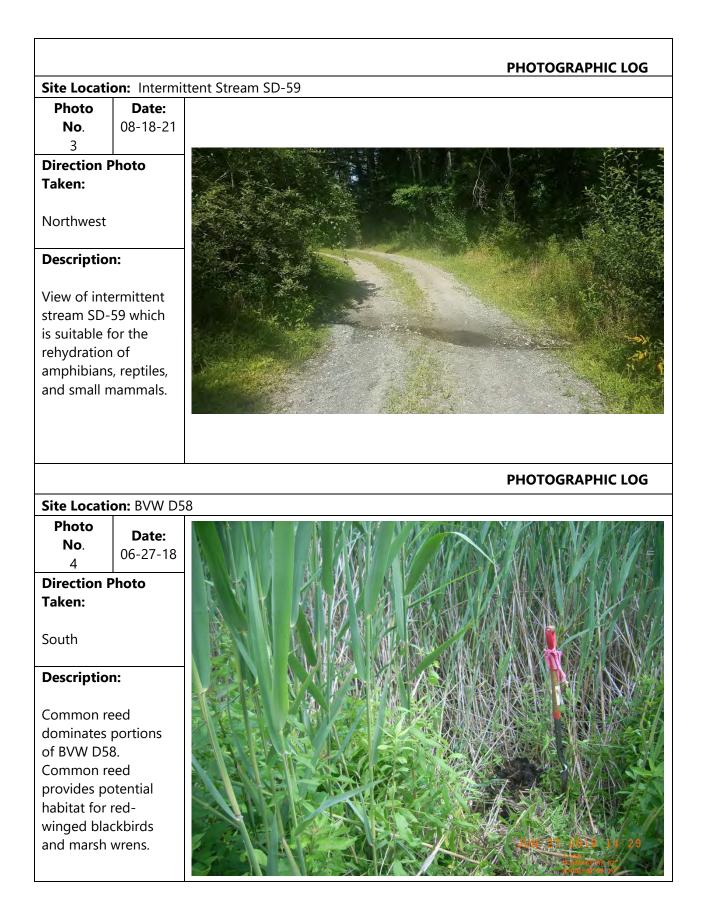
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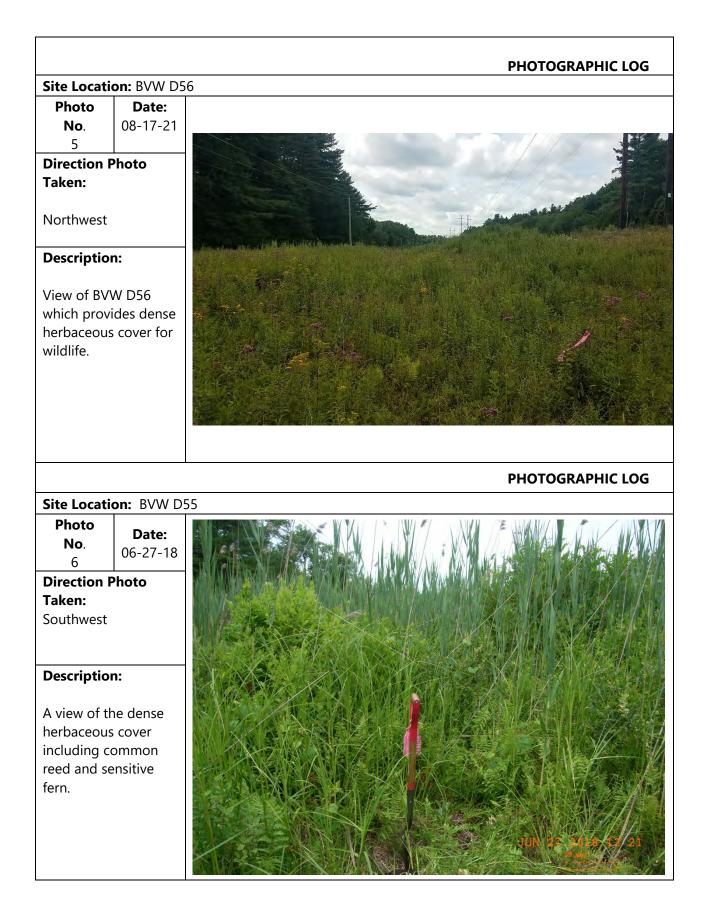
VI. Quantification Table for Important Habitat Characteristics

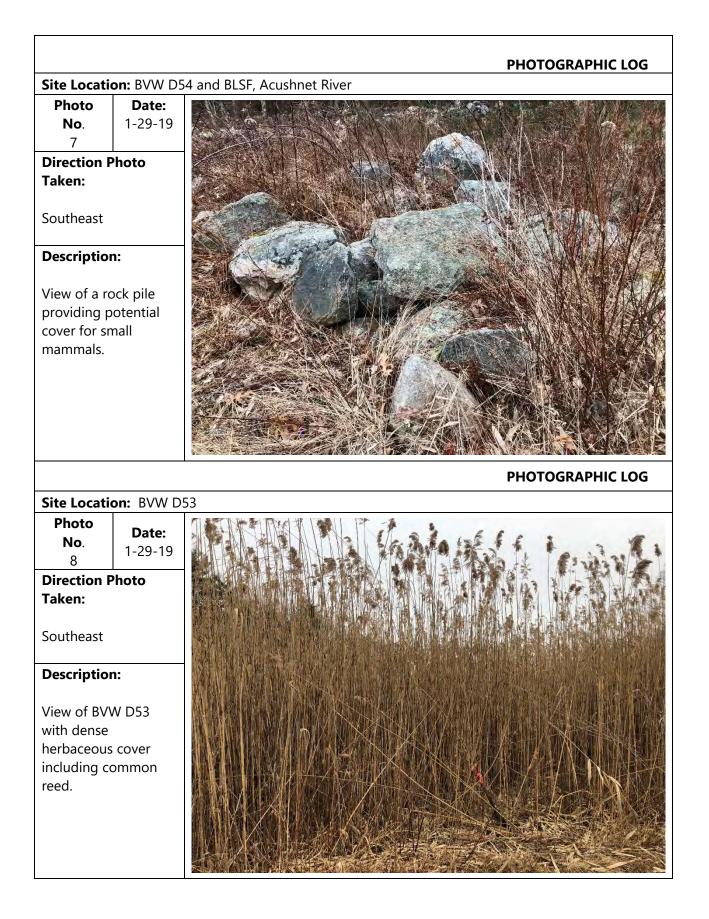
Habitat Characteristic	Amount Impacted in Impact Area	Current (entire site)	Post-Construction (entire site)
Example: standing dead trees 6-12" dbh	4	12	8

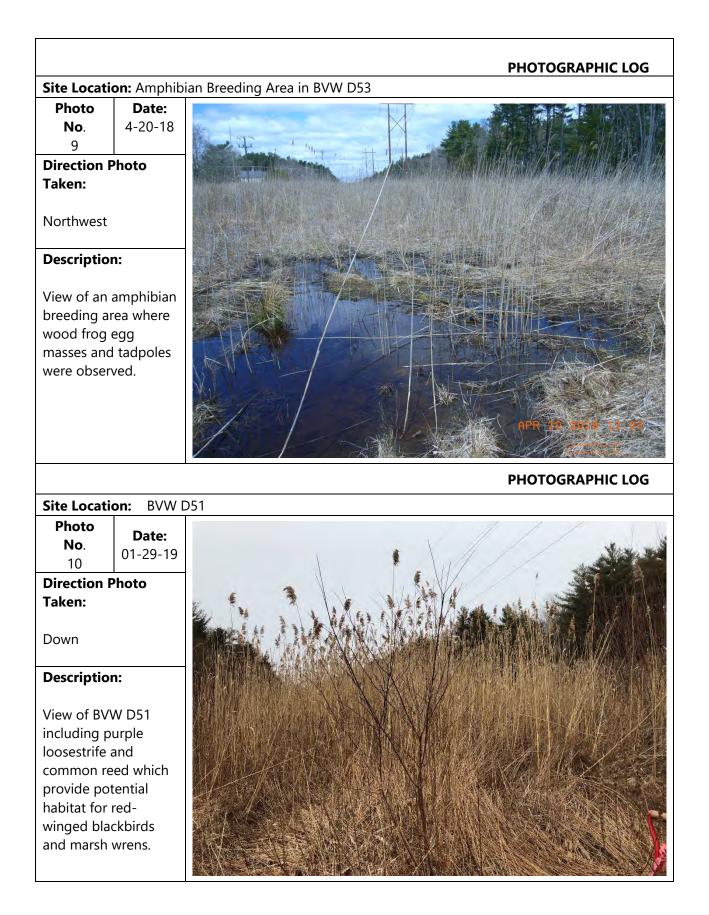
ATTACHMENT B HABITAT CHARACTERISTICS PHOTOGRAPHS

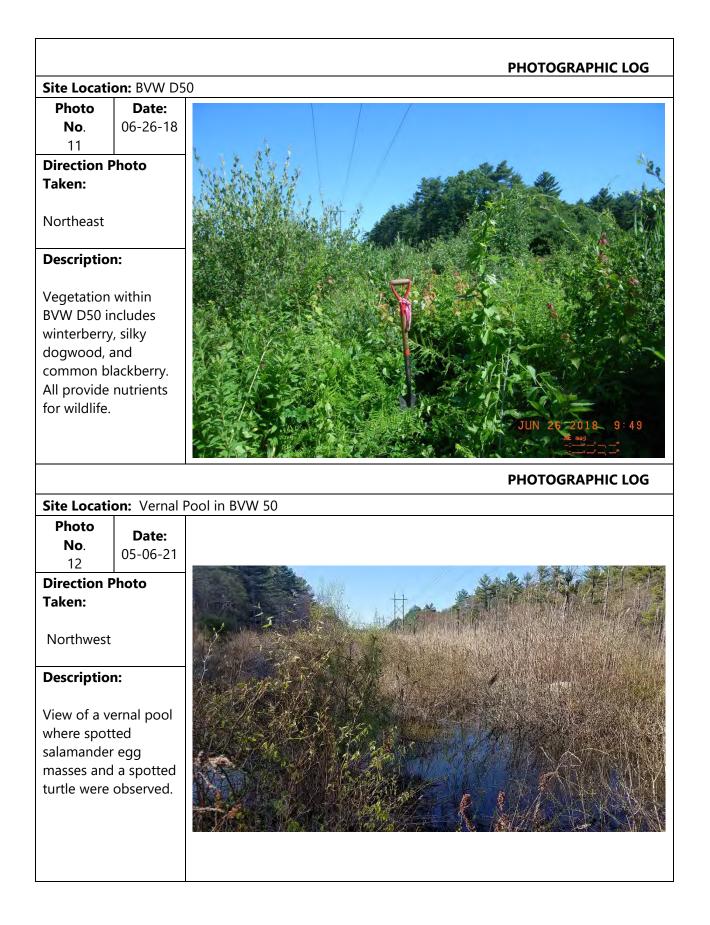


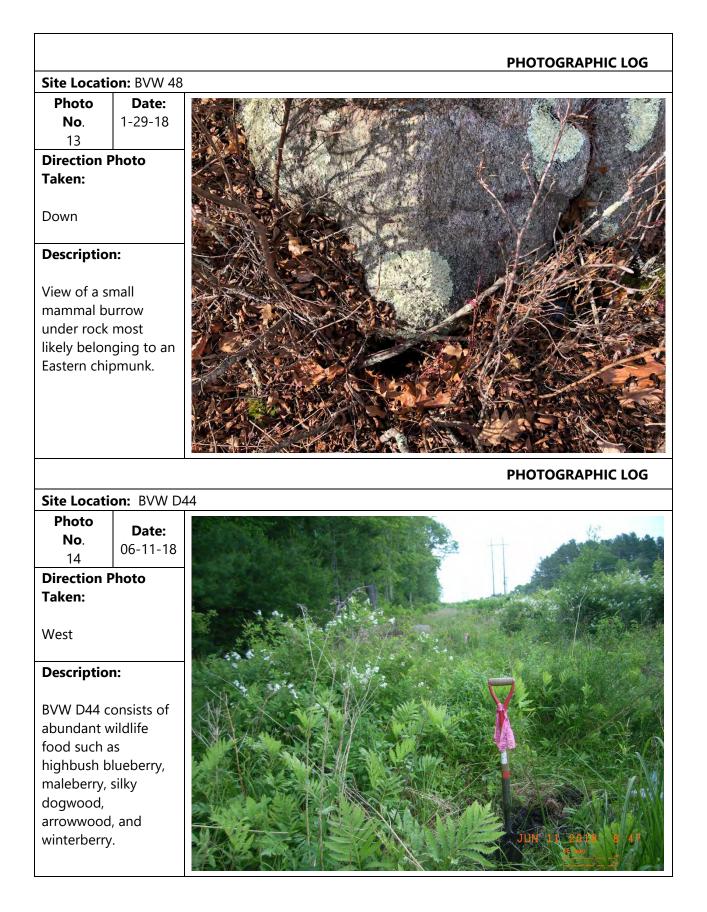


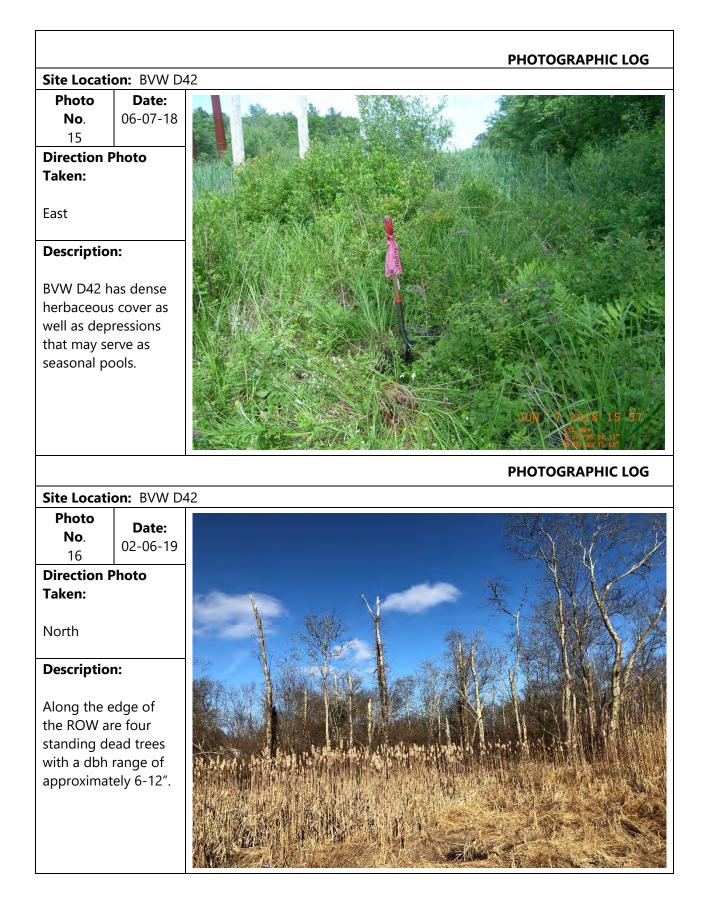




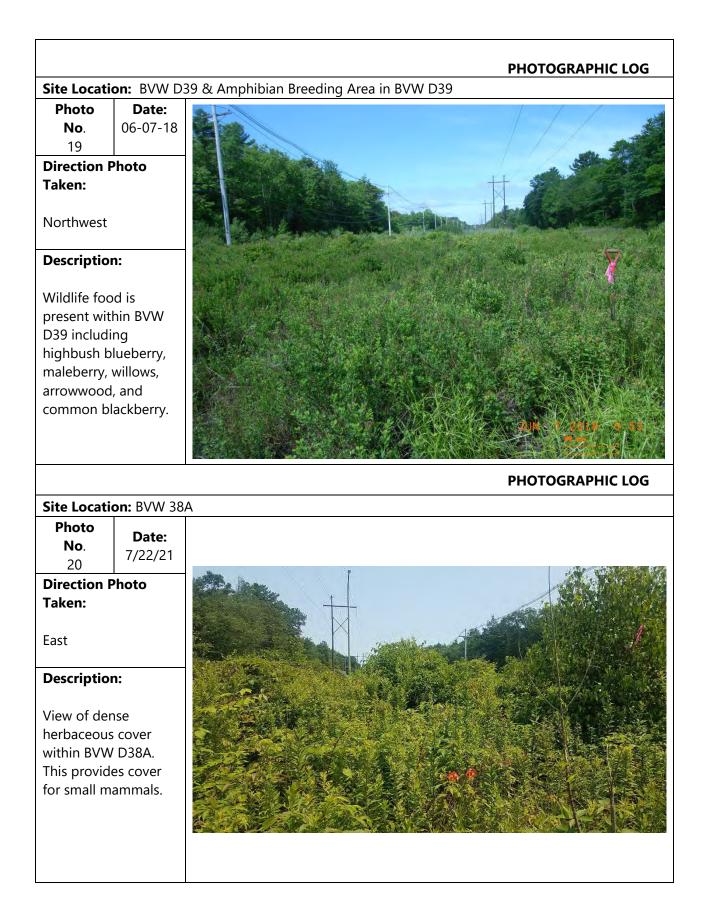


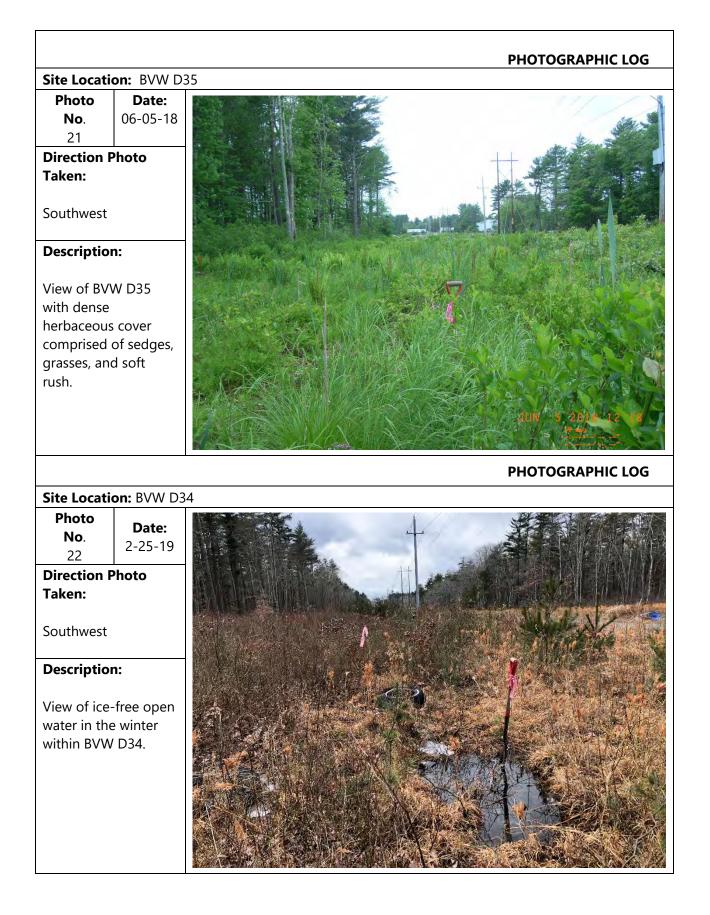


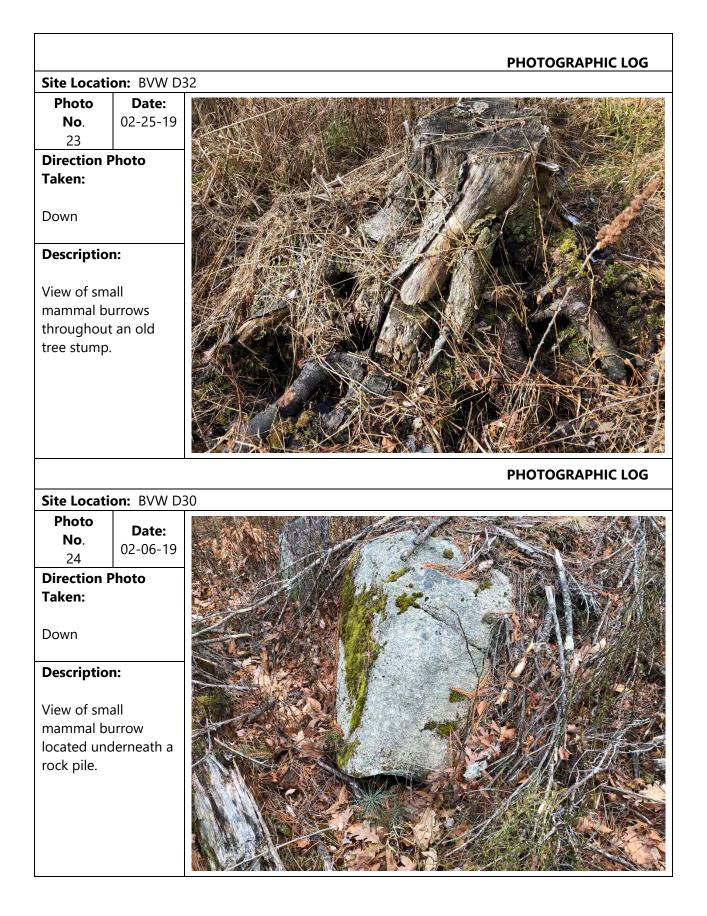


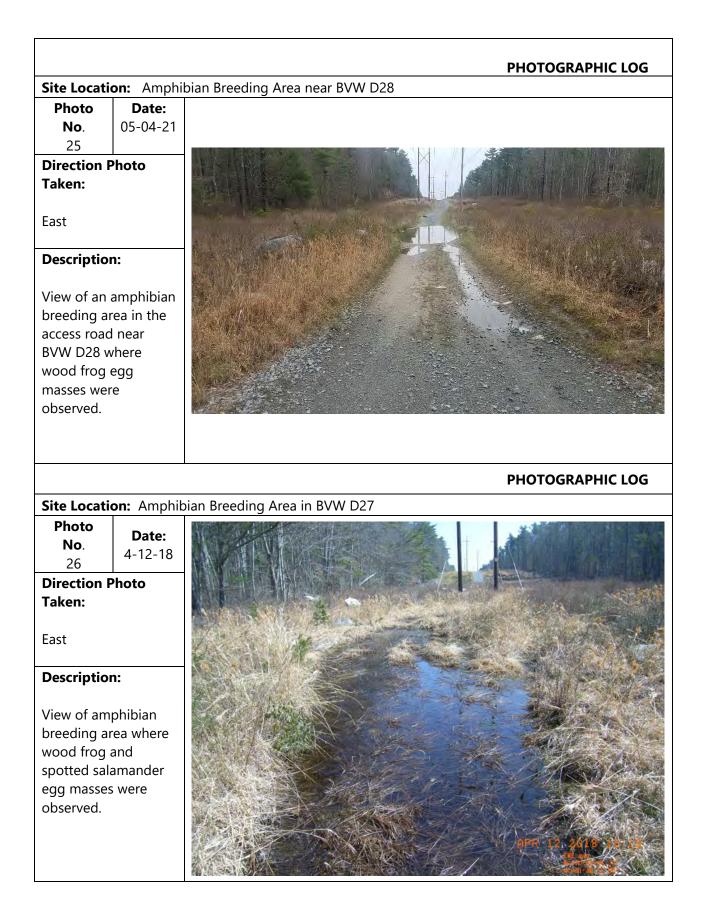


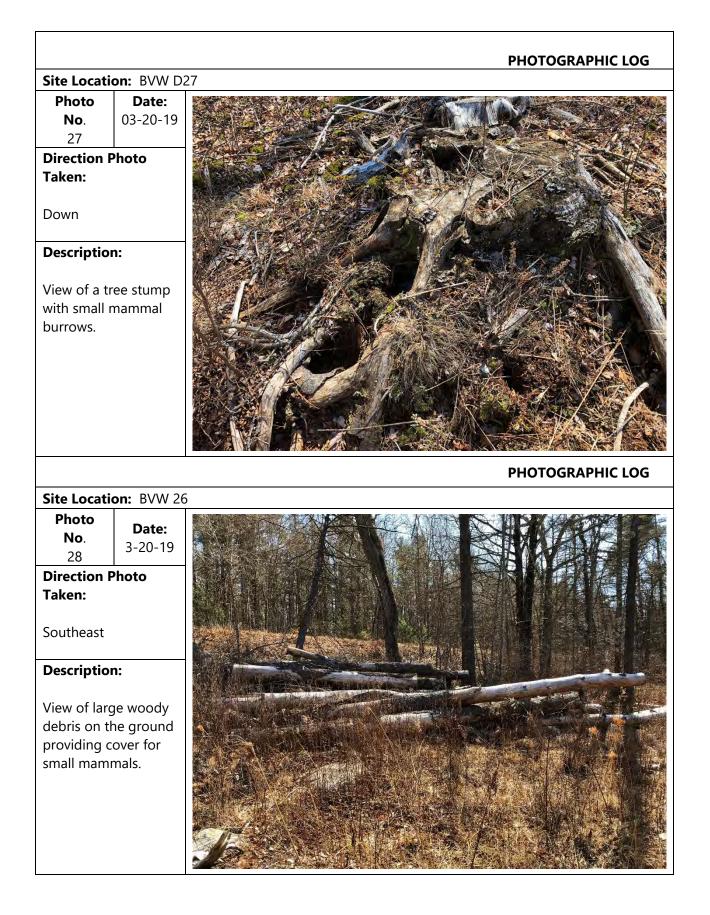
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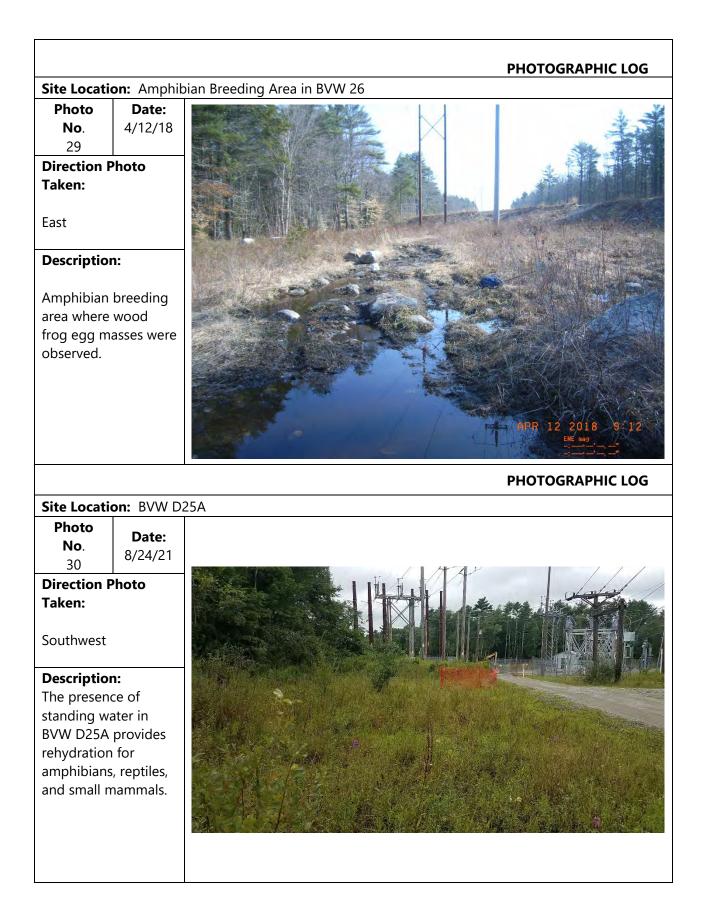


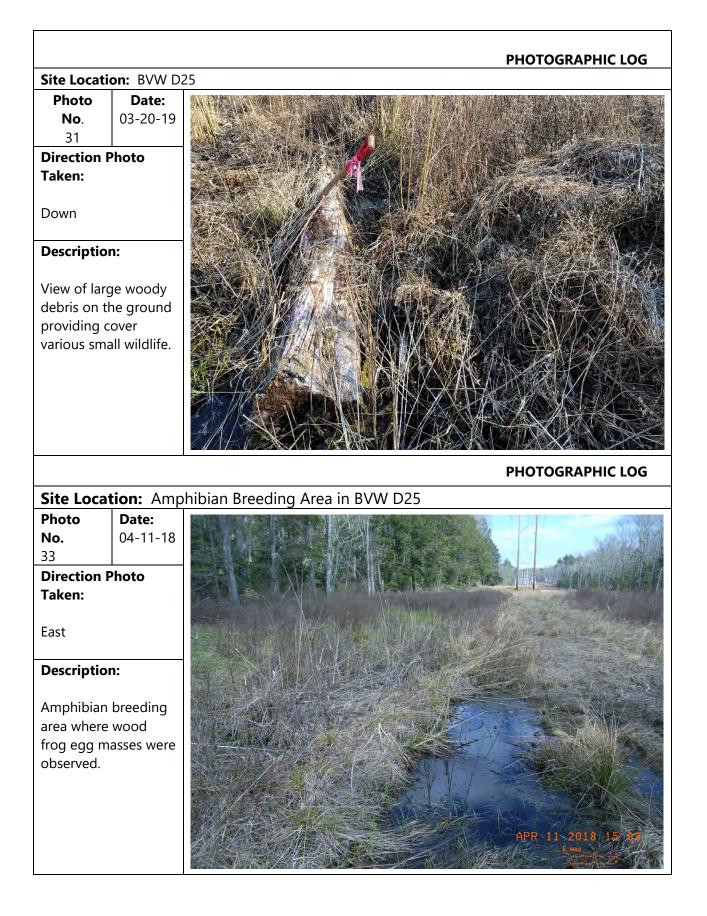


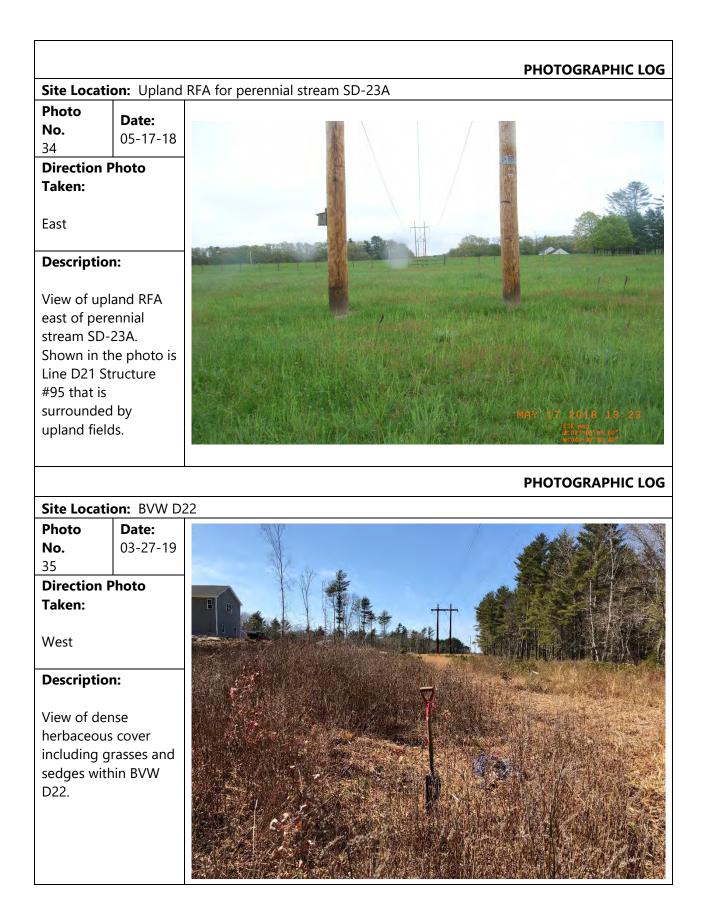


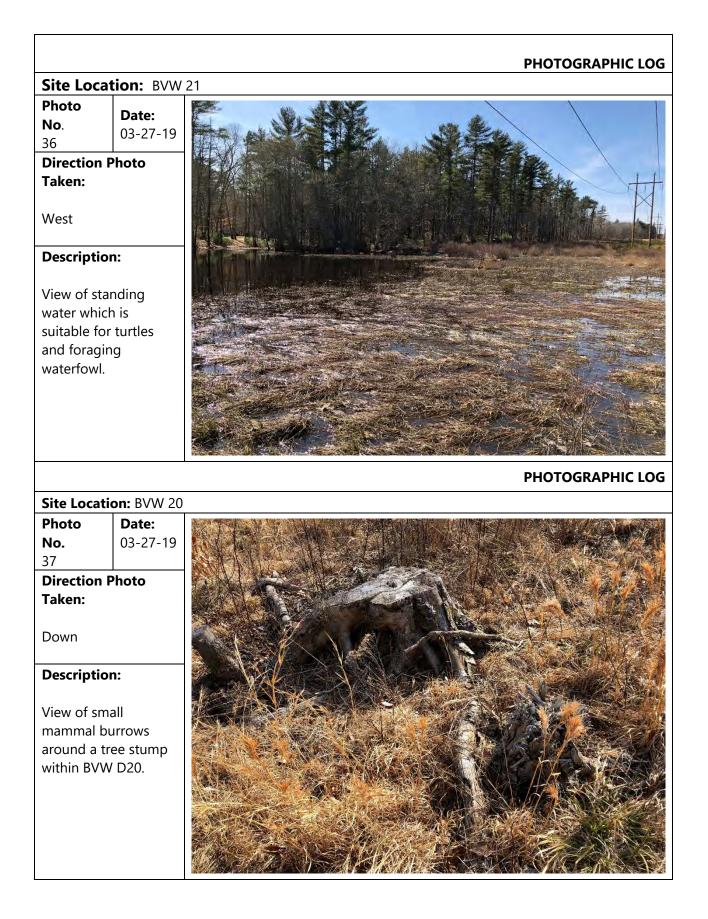












June 2023

NEW ENGLAND POWER COMPANY D/B/A NATIONAL GRID

Acushnet to Fall River Reliability Project

Wildlife Habitat Evaluation

PROJECT NUMBER: 146784 PROJECT CONTACT: Karen Hanecak EMAIL: Karen.Hanecak@powereng.com PHONE: 774-643-1821



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Wildlife Habitat Evaluation

PREPARED FOR: NEW ENGLAND POWER COMPANY d/b/a NATIONAL GRID

PREPARED BY: POWER ENGINEERS CONSULTING, PC

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ACRONYMS AND ABBREVIATIONS

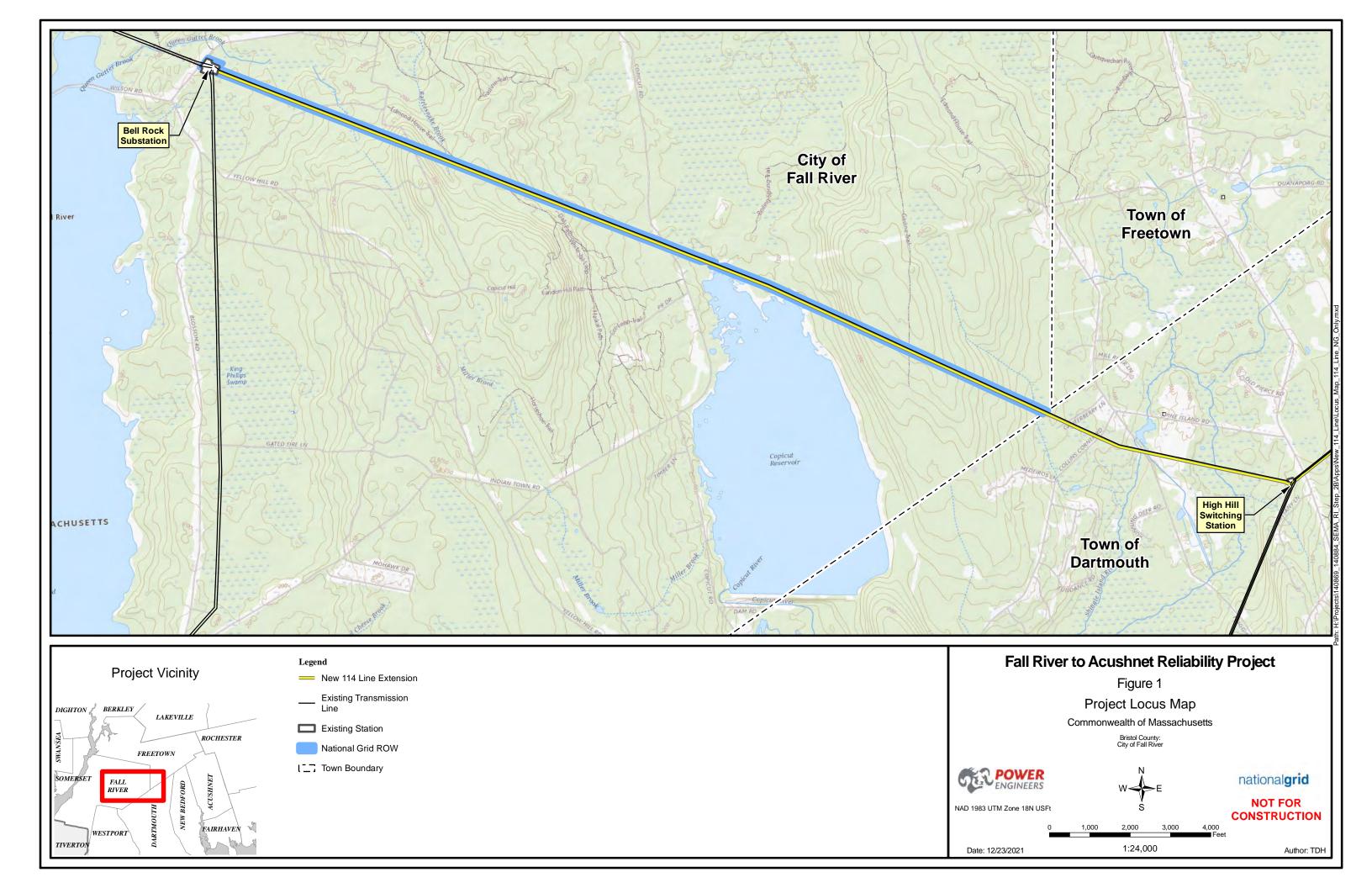
ATV Bioreserve BLSF BMP(s) BVW CMR CVP dbh Eversource IVW kV LUB MassDEP NHESP NHESP NEP NHESP NEP NWI PEM PFO POWER Project PSS PUB PVP RFA ROW(s) USFWS	all-terrain vehicle Southeastern Massachusetts Bioreserve Bordering Land Subject to Flooding Best Management Practice(s) Bordering Vegetated Wetland Code of Massachusetts Regulations Certified vernal pool diameter at breast height NSTAR Electric Company d/b/a Eversource Energy Isolated Vegetated Wetlands kilovolt Lacustrine Unconsolidated Bottom Massachusetts Department of Environmental Protection Natural Heritage and Endangered Species Program New England Power d/b/a National Grid National Wetland Inventory Palustrine Emergent Palustrine Forested POWER Engineers Consulting, PC Acushnet to Fall River Reliability Project Palustrine Unconsolidated Bottom Potential vernal pool Riverfront Area Right(s)-of-Way United States Fish and Wildlife Service
USFWS	United States Fish and Wildlife Service
WPA	Massachusetts Wetlands Protection Act

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1.0 INTRODUCTION

NSTAR Electric Company d/b/a Eversource Energy (Eversource) and the New England Power Company d/b/a National Grid (NEP) are proposing to undertake the Acushnet to Fall River Reliability Project (Project) to improve the electric transmission reliability in the southeastern Massachusetts area. The Project consists of the installation of a new electric transmission line extending from Eversource's Industrial Park Tap in Acushnet to NEP's existing Bell Rock Substation in Fall River. The proposed Project includes the installation of approximately 12.1 miles of new primarily overhead electric transmission line traversing the municipalities of Acushnet, New Bedford, Dartmouth, and Fall River in Bristol County, Massachusetts (Figure 1). Two small sections of underground cable are proposed (a total of approximately 600 linear feet) to avoid multiple overhead line crossings at Eversource's Industrial Park Tap and High Hill Substation locations. The new line will be located entirely within existing rights-of-way (ROWs) currently occupied by existing transmission lines. Of the 12.1 miles, approximately 7.9 miles are in Eversource service territory and approximately 4.2 miles are in NEP service territory traversing the city of Fall River.

This report pertains to the proposed Project facilities for NEP's portion of the Project in Fall River. Field assessments for the NEP portion of the Project within the existing transmission line ROW (hereafter referred to as the "Survey Area") were conducted from 2015 through 2018. Additional data was collected at two sites in 2021 and at the vernal pools. Tree clearing will be required to expand the cleared ROW width in order to accommodate the new transmission line.



2.0 DETAILED WILDLIFE HABITAT EVALUATION

This document presents the results of a wildlife habitat evaluation conducted on the NEP portion of the ROW pursuant to the Massachusetts Department of Environmental Protection Massachusetts Wetland Protection Act ([WPA] M.G. L. c. 131 §40) and associated Regulations (310 Code of Massachusetts Regulations [CMR] 10.00) addressing Wildlife Habitat Evaluations (310 CMR 10.60) and the procedures and methods detailed in the Massachusetts Department of Environmental Protection's (MassDEP) *Massachusetts Wildlife Habitat Protection Guidance for Inland Wetlands* (Guidance; MassDEP 2006). The Project qualifies as a "limited project" (310 CMR 10.53 (3)(d)) for the construction, reconstruction, operation, and maintenance of underground and overhead public utilities such as transmission lines; under which the issuing authority (Conservation Commissions/MassDEP) is empowered with the discretion to either waive or require wildlife habitat evaluations (MassDEP 2006).

The analysis was undertaken because the Project exceeds review thresholds for wildlife habitat alteration under the Massachusetts WPA, as implemented by the Wetlands Regulations (310 CMR 10.00). Cumulatively, anticipated impacts to Bordering Vegetated Wetland (BVW), Bordering Land Subject to Flooding (BLSF), and Riverfront Area (RFA) are greater than 5,000 square feet due to temporary (construction) impacts associated with construction mats and permanent wetland conversion associated with new tree removal. Some habitat functions associated with forested wetland will be converted to scrub-shrub habitat. However, in accordance with 310 CMR 10.53 (3)(d), the Project qualifies as a limited project for the construction, reconstruction, operation and maintenance of underground and overhead public utilities, such as transmission lines.

As a limited project, completion of a wildlife habitat evaluation may be required at the discretion of the issuing authority. NEP has elected to proactively undertake an Appendix B Detailed Wildlife Habitat Evaluation (Habitat Evaluation) for areas affected by the Project. This documentation is consistent with the standards of the MassDEP Guidance.

Habitat features or characteristics were evaluated in the Survey Area based on characteristics identified on the Guidance detailed data form (Attachment A). Important wildlife habitat features found during the field analyses includes:

- Upland/wetland food plants (hard mast and fruit).
- Shrub thickets/streambeds with abundant earthworms.
- Shrub vegetation suitable for veery nesting.
- Live trees (>30 inches diameter at breast height [dbh]).
- Standing dead trees (snags).
- Potential small mammal burrows.
- Dense herbaceous cover.
- Large woody debris on ground.
- Logs under the water's surface.
- Overhanging shrub branches at, or within one meter above the water's surface.
- Rock piles and crevices suitable as potential habitat.
- Live standing vegetation overhanging water or offering good visibility of open water.

- Depressions that serve as vernal pools and/or amphibian breeding areas.
- Standing water present at least part of the growing season for use by non-breeding amphibians.
- Standing water present at least part of the growing season suitable for use by turtles and foraging waterfowl.
- Flat rocks within exposed portions of streambeds.
- Areas of ice-free open water in winter.
- Perennial and intermittent streams.

Representative photographs of habitat characteristics within each impacted resource area are presented in Attachment B. The remainder of this document includes: state agencies' rare species consultations (Section 4.0), Best Management Practices (BMPs) which will be used throughout the course of Project activities (Section 5.0), anticipated Project impacts to wildlife habitat with potential mitigation actions listed to offset Project impacts (Section 6.0), and an adverse effect analysis and conclusion (Section 7.0).

3.0 EXISTING HABITAT CONDITIONS

3.1 Important Habitat Features

Wildlife habitat features and characteristics identified by the MassDEP Guidance were field evaluated in every wetland resource area (BVW, BLSF, and RFA) to be impacted by the Project and documented on the detailed data forms (Attachment A). The following wetland resource areas are located in the NEP Survey Area: 18 BVWs, one BLSF, and one RFA. The BLSF is associated with the Copicut Reservoir and the RFA is associated with perennial stream SD-11. Project impacts include: tree clearing within the existing corridor expected to convert to shrub habitat; temporary work pads and access routes; and structure installation. In locations where multiple sites of impact would take place in a wetland resource area, a representative site was selected to document wildlife habitat characteristics. Wildlife habitat information was collected at a total of 16 locations.

Based on the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) classification system (Cowardin et al. 1979), wetlands to be impacted by the Project are predominately forested wetlands (PFO). However, four other community types were also identified in the Survey Area: Palustrine Emergent (PEM), Palustrine Scrub-Shrub (PSS), Palustrine Unconsolidated Bottom (PUB), and Lacustrine Unconsolidated Bottom (LUB).

A variety of suburban wetland wildlife species utilize these habitats including an assemblage of mammals (chiefly small other than white-tailed deer (*Odocoileus virginianus*) and Eastern coyote (*Canis latrans* var.)), songbirds, reptiles, amphibians, and invertebrates. These wetland habitats provide feeding, nesting, breeding, and cover opportunities for wildlife where the wetlands are already embedded in a large area of natural habitat. Characteristics of the forest and shrub wetlands which provide necessary resources for wildlife include: berry-producing shrubs for food sources; young, developing shrubs providing an understory for cover; localized areas of surface water in the form of depressions; or vernal pools; and standing dead trees offering the potential for cavities and perches.

Listed in the sections below is a comprehensive overview of the wildlife habitat evaluation characteristics observed during the field surveys. The listed habitat characteristics are those identified on the MassDEP detailed habitat evaluation data forms (Attachment A) that are relevant to Project wetland resource areas. A summary of these data forms (Attachment A) can be found in Table 1 at the end of Section 3.0.

TABLE 1 EXISTING WILDLIFE HABITAT FEATURES IN FALL RIVER, MASSACHUSETTS

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN, ETC.)
Wildlife Food: Upland/wetland	BVW D20	Present	Highbush blueberry, maleberry, roundleaf greenbrier, white oak, American beech.
food plants (hard mast and fruit)	BVW D19 and BVW D19A	Present	Highbush blueberry, maleberry.
· · · · · · · · · · · · · · · · · · ·	BVW D18	Present	Highbush blueberry, maleberry.
	BVW D17	Present	Highbush blueberry, maleberry, roundleaf greenbrier.
	Upland BLSF associated with the Copicut Reservoir and Upland RFA of SD-11	Present	Highbush blueberry, roundleaf greenbrier maleberry.
	BVW D16A/ BLSF	Present	Highbush blueberry.
	BVW D15	Present	White oak, highbush blueberry, roundleaf greenbrier.
	BVW D12/BLSF of the Copicut Reservoir	Present	Highbush blueberry, arrowwood, roundleaf greenbrier, beech.
	BVW D11/BLSF of the Copicut Reservoir/Vernal Pool DP-4	Abundant	Highbush blueberry, winterberry, maleberry, arrowwood, roundleaf greenbrier, white oak, willow.
	BVW D8	Present	White oak, shagbark hickory.
	BVW D7	Abundant	Highbush blueberry, red oak, white oak, roundleaf greenbrier.
	BVW D6	Present	Raspberry, winterberry, highbush blueberry, roundleaf greenbrier, shagbark hickory.
	BVW D2	Present	Highbush blueberry, winterberry, maleberry, roundleaf greenbrier, willow, white oak.
	BVW D1	Abundant	Highbush blueberry, winterberry, roundleaf greenbrier, fox grape.
	BVW L1	Present	Highbush blueberry, maleberry, roundleaf greenbrier, red oak.
Shrub thickets/streambeds with abundant	BVW D20	Present	BVW D20 provides dense shrub thickets comprised of sweet pepperbush along portions of intermittent stream SD20. No woodcocks were observed during the evaluations.
earthworms	BVW D11	Present	BVW D11 provides dense shrub thickets comprised of sweet pepperbush and highbush blueberry along portions of perennial stream SD11 (the Copicut River). No woodcocks were observed during the evaluations.
Shrub/herbaceous vegetation suitable for	BVW D20	Present	BVW D20 provides dense shrub thickets comprised of sweet pepperbush. No veerys were observed during the evaluations.
veery nesting	BVW D17	Present	BVW D17 provides dense shrub thickets comprised of maleberry and highbush blueberry. No veerys were observed during the evaluations.
	BVW D11A	Present	BVW D11A provides shrub thickets comprised of sweet pepperbush. No veerys were observed during the evaluations.
	BVW D11	Present	BVW D11 provides dense shrub thickets comprised of sweet pepperbush and highbush blueberry. No veerys were observed during the evaluations.
	BVW D7	Present	BVW D7 provides dense shrub thickets comprised of sweet pepperbush and highbush blueberry. No veerys were observed during the evaluations.

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN, ETC.)
	BVW D2	Present	BVW D2 provides dense shrub thickets comprised of sweet pepperbush. No veerys were observed during the evaluations.
	BVW D1	Present	BVW D1 provides dense shrub thickets comprised of sweet pepperbush. No veerys were observed during the evaluations.
Trees (live or dead) > 30" dbh (diameter at	BVW D12	1	A live 32" dbh white pine tree located in the wetland buffer and 20 feet from the upland Copicut Reservoir BLSF.
breast height)	BVW D11	2	Two (32" and 33" dbh) live white pine trees located in the wetland buffer on the north side of Quanapoag Road.
Standing Dead Trees			
6-12" dbh	BVW D20	5 trees	Species unknown. Two trees are leaning.
6-12" dbh	BVW D19	1 tree	Species unknown. Woodpecker holes. Located on edge of the ROW.
6-12" dbh	Upland BLSF of the Copicut Reservoir	3 trees	Species unknown. On edge of ROW.
6-12" dbh	BVW D16A and BLSF of the Copicut Reservoir	3 trees	Species unknown.
6-12" dbh	BVW D11A	1 tree	Species unknown.
6-12" dbh	BVW D11	2 trees	Species unknown.
6-12" dbh	BVW D8	1 tree	Species unknown.
6-12" dbh	BVW D7	2 trees	Species unknown. Woodpecker holes.
6-12" dbh	BVW D6	12 trees	Species unknown. Woodpecker holes.
6-12" dbh	BVW L1	2 trees	Species unknown.
12-18" dbh	BVW D7	4 trees	Species unknown.
Small mammal	BVW D7	Present	Located under a rock for an Eastern chipmunk.
burrows	Upland BLSF of the Copicut Reservoir	Present	Potential habit is located in a stone wall.
	BVW D20	Present	Located under a rock for an Eastern chipmunk.
Dense herbaceous cover	BVW D20	Present	Young sweet pepperbush, young white pine, and young sheep laurel all under three feet tall; deer-tongue rosette-panicgrass.
	Upland BLSF of the Copicut Reservoir	Present	Bracken fern, flat-branched tree-clubmoss.
	BVW D11A	Present	Cinnamon fern
	BVW D11	Present	Cinnamon fern, royal fern, Massachusetts fern.
	BVW D7	Present	Sweet pepperbush under three feet tall, roundleaf greenbrier under three feet tall.
	BVW D1	Present	Cinnamon fern, young sweet pepperbush under three feet tall.
Large woody debris on	BVW D20	Present	Medium-sized woody debris on the ground.
ground	BVW D19	Present	Timber slash (tree logs) on the forest/ROW edge.
	BVW D11A	Present	Fallen tree branches are on the ground.
	BVW D11	Present	Large woody debris on edge of ROW along upland edge.

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN, ETC.)
	Vernal Pool DP-2 in Isolated Vegetated Wetland (IVW) D7A	Present	Medium-sized woody debris on the ground.
	BVW D6	Present	18" dbh log on ground.
	BVW D2	Present	10" dbh fallen tree on ground.
Rocks, crevices, logs, tree roots, or	Vernal Pool DP-7 in BVW D15	Present	Logs are present under the water's surface.
hummocks under water's surface	Vernal Pool DP-2 in IVW 7A	Present	When the pool is inundated, there is a fallen tree under the water's surface.
Rocks, crevices, fallen logs, overhanging	Upland RFA of the Copicut River	Present	A fallen tree branch overhangs the Copicut River.
branches or hummocks at, or within 1 meter above the water's surface	Vernal Pool DP-7 in BVW D15	Present	When the vernal pool is inundated, overhanging shrubs in the vernal pool and on the periphery of the vernal pool provide this characteristic.
	Vernal Pool DP-2 in IVW D7A	Present	When the vernal pool is inundated, overhanging shrubs in the vernal pool and on the periphery of the vernal pool provide this characteristic.
Rock piles, crevices, or hollow logs	BVW D20	Present	One rock pile provides potential habitat for an animal similar in size to a mink.
	BVW D18	Present	A crevice provides potential habitat for an animal similar in size to a mink.
	BVW D7	Present	One crevice (approximate size 1 foot tall by 2.5 feet wide) under a rock provides potential habitat for an animal the size of a bobcat.
Live or dead standing vegetation overhanging water or offering good visibility of open water	BVW D12	Present	Gray birch trees are growing on the wetland edge with branches overhanging into the Copicut Reservoir.
Depressions that may serve as seasonal (vernal/autumnal) pools	Vernal Pool DP-12 in BVW 20	Present	Average water depth (2018): 19 inches Maximum water depth (2018): 19 inches Average water depth (2021): 12 inches Maximum water depth (2021): 20 inches
	Vernal Pool DP-7 in BVW D15	Present	Average water depth (2018): 8 inches Maximum water depth (2018): 13 inches Average water depth (2021): 6 inches Maximum water depth (2021): 8 inches
	Amphibian Breeding Area (DP-8) adjacent to BVW D14 and BVW D15 in the maintained access road	Present	Average water depth (2018): 7 inches Maximum water depth (2018): 12 inches No surveys in 2021
	Vernal Pool DP-4 in BVW D11	Present	Average water depth (2018): 6 inches Maximum water depth (2018): 13 inches Average water depth (2021): 10 inches Maximum water depth (2021): 13 inches

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN, ETC.)
	Amphibian Breeding Area DP-3 located in an ATV tire rut adjacent to Yellow Hill Road in an upland	Present	Average water depth (2018): 6 inches Maximum water depth (2018): 13 inches No surveys conducted in 2021
	Vernal Pool DP-2 in IVW D7A	Present	Average water depth (2018): 10 inches Maximum water depth (2018): 12 inches No water observed during the 2021 surveys.
	Vernal Pool DP-5 in BVW D7	Present	Average water depth (2018): 14 inches Maximum water depth (2018): 17 inches Average water depth (2021): 10 inches Maximum water depth (2021): 14 inches
	Vernal Pool LP-1 in BVW L1	Present	Average water depth (2018): 10 inches Maximum water depth (2018): 14 inches Average water depth (2021): 6 inches Maximum water depth (2021): 10 inches
	nt at least part of the growing for foraging and rehydration	ı season: Suit	able for use by breeding amphibians, as well as for non-
Suitable for breeding and non-breeding amphibians	Vernal Pool DP-12 in BVW 20	Present	2 wood frog egg masses (2018) ~50 wood frog tadpoles (2018) ~150 wood frog tadpoles (2021) 3 spotted salamander egg masses (2021)
Suitable for non- breeding amphibians	Intermittent Stream (SD- 20) in BVW 20	Present	-
Suitable for non- breeding amphibians	Intermittent Stream (SD- 19) in BVW 19A	Present	-
Suitable for breeding and non-breeding amphibians	Vernal Pool DP-7 in BVW D15	Present	~50 fairy shrimp (2018) 1 American toad
Suitable for breeding and non-breeding amphibians	Amphibian Breeding Area (DP-8) between BVW D14 and BVW D15 in the maintained upland access road	Present	1 wood frog egg mass (2018) 3 mating pairs of American toads (2018) 3 single American toads (2018) American toads calling (2018)
Suitable for non- breeding amphibians	BVW12 due to isolated pockets of water from the Copicut Reservoir	Present	-
Suitable for non- breeding amphibians	Perennial Copicut River (SD11)	Present	-
Suitable for breeding and non-breeding amphibians	BVW D11A	Present	-
Suitable for breeding and non-breeding amphibians	Vernal Pool DP-4 in BVW D11	Present	~30 spotted salamander egg masses (2017) 2 wood frog egg masses (2018) 8 spotted salamander egg masses (2018) 10 wood frog egg masses (2021) ~50 wood frog tadpoles (2021) 16 spotted salamander egg masses (2021)

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN, ETC.)
Suitable for breeding and non-breeding amphibians	Amphibian Breeding Area DP-3 located in an ATV tire rut adjacent to Yellow Hill Road. This amphibian breeding area is in no resource areas and is located in upland	Present	20 wood frog egg masses (2017) 1 wood frog adult (2017) 3 spotted salamander egg masses (2017)
Suitable for non- breeding amphibians	Intermittent Stream SD-8 in BVW D8	Present	-
Suitable for breeding and non-breeding amphibians	Vernal Pool DP-2 in IVW D7A	Present	5 spotted salamander egg masses (2017) ~20 spotted salamander larvae (2017) 2 wood frog egg masses (2018) 7 spotted salamander egg masses (2018) ~100 fairy shrimp (2018) American toads calling (2018)
Suitable for breeding and non-breeding amphibians	Vernal Pool DP-5 in BVW D7	Present	3 wood frog egg masses (2018) ~hundreds of wood frog tadpoles (2018) ~55 spotted salamander egg masses (2018) 14 wood frog egg masses (2021) 10 wood frog tadpoles (2021) 6 spotted salamander egg masses
Suitable for non- breeding amphibians	Intermittent Stream (SD-5) in BVW D6	Present	-
Suitable for breeding and non-breeding amphibians	Vernal Pool LP-1 in BVW L1	Present	2 wood frog egg masses (one hatching) (2016) ~50 wood frog tadpoles (2018) 2 old wood frog egg masses (2018) 3 wood frog egg masses (2021) ~50 wood frog tadpoles (2021)
Standing water present at least part of the growing season suitable for use by turtles and foraging waterfowl	Copicut Reservoir	Present	The portion of the Copicut Reservoir within the Project ROW has standing water present earlier in the growing season. During the July-Nov. 2017 surveys, the Copicut Reservoir in the ROW was a majority of exposed shoreline. During the April-June 2018 surveys the previously exposed shoreline was inundated.
Medium to large (>6") flat rocks within a	Intermittent Stream (SD-5) and BVW D6	Present	One flat rock was present.
stream	Perennial Copicut River (SD-11) in BVW D11	Present	Flat rocks are present within the Copicut River near the Quanapoag Road crossing.
Flat rocks and logs on banks or within	Intermittent Stream (SD-5) in BVW D6	Present	One flat rock was present.
exposed portions of streambeds	Perennial Copicut River (SD-11) in BVW D11	Present	Flat rocks are present near the Quanapoag Road crossing.
Areas of ice-free open water in winter	Copicut Reservoir	Present	High potential that areas of the reservoir have ice-free open water in winter.
	Perennial Copicut River (SD-11) in BVW D11	Present	Stream was flowing in Nov. 2017. There is the potential that this perennial stream remains ice-free in winter.

HABITAT CHARACTERISTICS	WETLAND RESOURCE AREA	EXISTING HABITAT FEATURES	NOTES/COMMENTS (EXISTING PLANTS, OBSERVED WATER DEPTHS, SPECIES, SIGN, ETC.)
Perennial and intermittent streams	- SD-20 in BVW 20 - SD-19 in BVW D19A - SD-11 in BVW D11 - SD-8 in BVW D8 - SD-5 in BVW D6	Present	Stream SD-11 (Copicut River) is perennial. Streams SD-20, SD-19, SD-8, and SD-5 are intermittent.

TABLE 2WILDLIFE OBSERVATIONS AND SIGNS IN BORDERING VEGETATED WETLANDS
BORDERING LANDS SUBJECT TO FLOODING, AND VERNAL POOLS IN FALL
RIVER, MASSACHUSETTS

WETLAND RESOURCE AREA	OBSERVED WILDLIFE SPECIES	OBSERVED WILDLIFE SIGNS
BVW D20 and Intermittent Stream SD20	-Black-capped chickadee (heard) -Gray catbird -Eastern towhee -Yellow warbler	-Eastern white pine cone shells cache and small mammal burrow (likely Eastern chipmunk) -White-tailed deer droppings -Raccoon prints
Vernal Pool DP-12 in BVW D20	-Wood frog egg masses and tadpoles	-No observations at times of site visits
BVW D19 and BVW 19A, Intermittent Stream SD-19	-Gray catbird -Eastern towhee -Eastern box turtle in buffer zone on the south side of the maintenance road	-White-tailed deer droppings -White-tailed deer prints in access road
BVW D17 and D18	-White-tailed deer on access road -Black-capped chickadee -Gray catbird -Eastern towhee	-White- tailed deer droppings
Upland BLSF associated with the Copicut Reservoir	-Black-capped chickadee	-Eastern coyote scat on access road near Copicut Reservoir
BVW D16A, BLSF associated with Copicut Reservoir	-Black-capped chickadee -Hundreds of young American toads headed to the Copicut Reservoir	-White-tailed deer droppings
BVW D15	-Ovenbird in D15 -Eastern chipmunk in D15 -Eastern towhee	-White-tailed deer droppings and deer beds -Eastern white pine cone shells cache (likely Eastern chipmunk)
Vernal Pool DP-7 in BVW D15	-Fairy shrimp	-No observations at times of site visits
BVW D14	-American toads (mating pairs) -Wood frog egg mass	-White-tailed deer droppings and deer beds
Upland BLSF associated with the Copicut Reservoir	-Eastern towhee -Green frog	-White-tailed deer trail along edge of Copicut Reservoir -White-tailed deer tracks and droppings
Copicut Reservoir	-Red-tailed hawks (2 juveniles) flying overhead -Great egret -Canada geese -Pickerel frog	-No observations at times of site visits
BVW D12 and BLSF associated with the Copicut Reservoir	-Ruby-throated hummingbird	-White-tailed deer droppings
RFA associated with Perennial Stream SD- 11 (the Copicut River)	-Green frog	-White-tailed deer droppings
BVW D11A	-No observations at times of site visits	-White-tailed deer droppings
BVW D11, Perennial Stream SD-11, RFA, and BLSF	-Gray catbird -Eastern towhee -Yellow warblers	-White-tailed deer droppings -Unidentified bird nest in shrubs -Raccoon hand print

WETLAND RESOURCE AREA	OBSERVED WILDLIFE SPECIES	OBSERVED WILDLIFE SIGNS
Vernal Pool DP-4 in BVW D11	-Spotted salamander egg masses -Wood frog egg masses	-No observations at times of site visits
BVW D8 and Intermittent Stream SD-8	-No observations at times of site visits	-White-tailed deer droppings -Wild turkey feather near stream SD2
DP-2 in IVW D7A	-Spotted salamander egg masses and larvae -Wood frog egg masses -Fairy shrimp -American toad	-No observations at times of site visits
BVW D7	-Gray catbird -Eastern towhee	-Unidentified bird nest -White-tailed deer droppings -Small mammal burrow (likely Eastern chipmunk)
Vernal Pool DP-5 in BVW D7	-Wood frog egg masses and tadpoles -Spotted salamander egg masses	-No observations at times of site visits
BVW D6 and Stream SD-5	-Gray catbird -Eastern towhee -Wood frog tadpoles in DP1	-White-tailed deer droppings
BVW D1 and BVW D2	-Eastern box turtle carapace in D1 -Gray catbird -Eastern towhee	-White-tailed deer browse on shrubs -Eastern coyote scat
BVW L1	-Gray catbird -Eastern towhee -Two red squirrels -Black-capped chickadee -Tufted titmouse	-White-tailed deer droppings
Vernal Pool LP-1 in BVW L1	-Wood frog egg masses and tadpoles	-No observations at times of site visits

3.1.1 Upland / Wetland Food Plants (Hard Mast and Fruit)

A variety of native and invasive shrubs and woody vines in the Survey Area provide fruit and seeds for wildlife food, particularly to birds and mammals inhabiting and using the Survey Area. All BVWs and upland BLSFs associated with North Watuppa Pond and Copicut Reservoir provide food sources for wildlife. Native shrubs serving as a wildlife food source include: highbush blueberry (*Vaccinium corymbosum*), smooth arrowwood (*Viburnum dentatum*), winterberry (*Ilex verticillata*), maleberry (*Lyonia ligustrina*), willows (*Salix* spp.), and raspberries (*Rubus* spp.). The native woody vine roundleaf greenbrier (*Smilax rotundifolia*) provides fruit for wildlife. A variety of tree species provide hard mast for wildlife, predominately small mammals and white-tailed deer. Tree species include white oak and red oak (*Quercus alba* and *Quercus rubra*), American beech (*Fagus grandifolia*), and shagbark hickory (*Carya ovata*). Refer to Table 1 for a list of food plants in each resource area.

3.1.2 Shrub Thickets/Streambeds with Abundant Earthworms

Two BVWs (BVW D20 and BVW D11) contained habitats that may provide American woodcock (*Scolopax minor*) habitat. BVW D20 contained a dense shrub thicket of sweet pepperbush (*Clethra alnifolia*) along portions of intermittent stream SD20 that also have the high potential for abundant earthworms. BVW D11 contained a dense shrub thicket of sweet pepperbush (*Clethra alnifolia*) and

highbush blueberry along portions of the perennial stream SD11 (the Copicut River). No American woodcocks were observed during the wildlife habitat evaluations.

3.1.3 Shrub/Herbaceous Vegetation Suitable for Veery Nesting

Eight BVWs contained a dense assemblage of native shrub species which may provide potential nesting opportunities for the veery (*Catharus fuscescens*). These birds prefer dense shrub or woodland habitats which are damp (DeGraaf and Yamasaki 2001). Dense shrub cover in the BVWs included sweet pepperbush and highbush blueberry. No veerys were observed during the habitat evaluations. Refer to Table 1 for a list of BVWs and the species comprising the dense shrub layer cover species.

3.1.4 Trees (Live or Dead) > 30-inch Diameter at Breast Height

A total of three live white pines greater than 30 inches dbh were found in the wetland buffer zones of BVW D12 and BVW D11. The buffer of BVW D12 had a white pine tree with a 32-inch dbh which is located to the northwest of BVW D12 and just over 30 feet north of the Copicut Reservoir. The buffer of BVW D11 had two live white pine trees with a dbh of 32 inches and 33 inches. These two trees were located just to the north of Quanapoag Road.

3.1.5 Standing Dead Trees (Snags)

Standing dead trees, also known as snags, provide feeding, nesting, denning, roosting, or perching areas for wildlife. The particular tree species of the snags were all unidentifiable in the field. Several class ranges were observed throughout the Survey Area. Eleven resource areas contained snag trees with a dbh range of 6 to 12 inches. Resource areas with the highest numbers of snag trees include BVW D6 (12 trees) and BVW D20 (five trees). Three trees each were found in the upland BLSF of the Copicut Reservoir and BVW16A and the BLSF of the Copicut Reservoir. The remainder of the resource areas had one to two snags observed. Four snag trees were recorded with a dbh range of 12 to 18 inches in BVW D7. Refer to Table 1 for more detail on snag trees in each resource area.

Woodpeckers such as the downy woodpecker (*Picoides pubescens*) or the hairy woodpecker (*Picoides villosus*) feed on wood-boring larvae beetles found in snags; thereby creating holes or nesting cavities in snag trees while trying to access the beetles. Several of these snag trees contained woodpecker (*Picoides*) holes in BVWs D19 and D7. Smaller snags provide nesting or feeding sites for such suburban birds as the black-capped chickadee (*Poecile atricapillus*), tufted titmouse (*Baeolophus bicolor*), and white-breasted nuthatch (*Sitta carolinensis*). Small mammals, such as the eastern gray squirrel (*Sciurus carolinensis*) may den in tree cavities during the winter (DeGraaf and Yamasaki 2001).

3.1.6 Potential Small Mammal Burrows

Only two resource areas (BVW 20 and BVW D7) contained small mammal burrows, which most likely were eastern chipmunks (*Tamias striatus*). Eastern chipmunks create underground nests with extensive tunnel systems. The upland BLSF of the Copicut Reservoir contained a stone wall which provides potential small mammal habitat.

3.1.7 Dense Herbaceous Cover

Herbaceous cover is defined as all non-woody plants regardless of size and woody vegetation less than 3.28 feet tall. Dense herbaceous cover in the BVWs was predominately present as the shrub, sweet pepperbush which was less than 3.28 feet in height. The common non-woody emergent vegetation providing dense herbaceous cover included cinnamon fern (*Osmundastrum cinnamomeum*) and royal fern (Osmunda regalis). In the upland BLSF of the Copicut Reservoir, bracken fern (*Pteridium aquilinum*) and flat-branched tree-clubmoss (*Dendrolycopodium obscurum*) provided dense herbaceous cover. The young sweet pepperbush and dense fern cover provide a thick cover of vegetation under the established overstory of trees and shrubs. Refer to Table 1 for a list of dense herbaceous cover species within each resource area.

3.1.8 Large Woody Debris on Ground

Large woody debris on the ground was identified near several impact areas. In BVW D19, trees which had been cut were placed on the northern edge of the Survey Area. Natural fallen woody debris was identified in wetlands D11A, D11, D6, and D2 as fallen trees. These fallen trees provide potential denning sites within the decaying interior of the logs (Hagan and Grove 1999). Decaying logs also provide food sources for a variety of insects residing within the decaying logs, and cover for specific woodland amphibian species including the red-back salamander (*Plethodon cinereus*) (DeGraaf and Yamasaki 2001).

3.1.9 Logs Under the Water's Surface

Fallen logs and trees are present under the water's surface in three vernal pools. BVW D15 contains vernal pool DP-7 and Isolated Vegetated Wetland (IVW) D7A contains DP-2. An IVW does not border on any creeks, rivers, streams, ponds or lakes and are closed isolated depressions with no inlets or outlets. These logs provide cover for breeding wood frogs (*Lithobates sylvatica*) and spotted salamander (*Ambystoma maculatum*), as well as for the developing larvae of these two amphibian species.

3.1.10 Overhanging Branches at or Within One Meter Above the Water's Surface

Shrubs overhang into two vernal pools (DP-7 and DP-2) when the pools are inundated. These overhanging shrubs, which are predominately sweet pepperbush and highbush blueberry, provide cover for breeding amphibians and developing larvae. The overhanging shrubs also provide shade for egg masses and developing larvae and prevent a high rate of evapotranspiration, thus aiding in a longer hydroperiod for the vernal pools. A fallen branch overhangs the Copicut River (SD-11) in the upland RFA and the upland BLSF of the Copicut Reservoir.

3.1.11 Rock Piles and Crevices

Rock piles and crevices provide habitat for denning mammals. A rock pile present in BVW D20 and a crevice present in BVW D18 have the potential to provide habitat for an animal the size of a mink (*Neovison vison*). A larger crevice in BVW D7 contains a crevice approximately 1.0 feet tall and 2.5 feet wide. This crevice has the potential to provide a denning site for bobcat (*Lynx rufus*).

3.1.12 Live Vegetation Overhanging Water or Offering Good Visibility of Open Water

Gray birch (*Betula populifolia*) trees are growing along the edge of BVW D12 and overhang into the Copicut Reservoir water and offer good visibility of the water. These branches provide perching sites for waterbirds to fish in the pond. Potential bird species using these branches in the Project Area may include tree swallows (*Tachycineta bicolor*) and belted kingfishers (*Ceryle alcyon*) (DeGraaf and Yamasaki 2001).

3.1.13 Depressions that may Serve as Vernal Pools/Amphibian Breeding Areas

The WPA defines vernal pool habitat as confined basin depressions that typically hold water for two continuous months during the spring and are free of adult fish populations. These areas provide essential breeding habitat for a variety of amphibian species such as wood frogs and the spotted salamander. Certified vernal pools (CVPs) are those that have been certified by the Massachusetts Natural Heritage and Endangered Species Program (NHESP) according to the Guidelines for Certification of Vernal Pool Habitat (NHESP 2018) and are protected if they fall under the jurisdiction of the WPA. CVPs are also afforded protection under Section 401 of the federal Clean Water Act, the Massachusetts Surface Water Quality Standards that relate to Section 401, and the Massachusetts Forest Cutting Practices Act. No CVPs are identified to occur in the Survey Area (NHESP 2018). Potential vernal pools (PVPs) have also been mapped by NHESP but do not receive protection under the WPA or under any other state or federal wetlands protection laws (NHESP 2013).

Amphibian Breeding Area refers to areas where signs of amphibian breeding (obligate and/or facultative species) have been observed, but the overall habitat of the area did not meet the specific vernal pool criteria. Obligate vernal pool species observed during the NEP ROW vernal pool investigations include wood frogs, spotted salamanders, and fairy shrimp (*Eubranchipus spp.*). Facultative species observed during the NEP ROW vernal pool surveys include American toads (*Bufo americanus*) and spring peepers (*Pseudacris crucifer*). If the depression had less than 12 inches of water the pool was classified as an amphibian breeding area due to the unlikelihood of water persisting through the duration of the egg mass development and maturation thus causing the viability of successful amphibian breeding success improbable. An adequate hydroperiod of three to five months allows for a greater chance of the successful development of amphibian species using the pool.

Discretion was also used for classifying vernal pools versus amphibian breeding areas based upon the location of the pool. For example, depressions (e.g., deep tire ruts) located within and along an existing access road or all-terrain vehicle (ATV) trail that were observed to provide amphibian breeding habitat were classified as amphibian breeding areas if they were isolated and not connected to wetland systems. The majority of these isolated depressions within or along anthropogenic areas are located within maintained ROWs in areas with full sun and little or no shrub canopy. There is the likelihood of high evapotranspiration rates within these isolated depressions, causing water levels to decrease. As a result, the depressions may not provide adequate water levels to support the development of obligate vernal pool species.

Surveys along the NEP ROW were conducted from spring 2017-spring 2018, with the exception of LP-1 which also had surveys conducted during spring 2015 and spring 2016. Additional surveys were conducted in spring 2021 for vernal pools. The surveys were scheduled after the first significant rain events, when the majority of evening low temperatures were expected to remain in the 40s (degrees Fahrenheit). These weather conditions promote inward migration of amphibians to the pools for the purpose of breeding. Biologists conducted visual surveys and used dip nets to sweep the water column to

determine the presence or absence of amphibians and other vernal pool species. When heard, choruses of breeding frogs were also noted.

Table 3 is a list of vernal pools and two amphibian breeding areas that will be impacted by the Project.

	SUR	VEY AREA				
ID NUMBER	POOL TYPE	EXISTING COVER TYPE	AVERAGE WATER DEPTH (IN.)	Maximum Water Depth (IN.)	OBLIGATE SPECIES OBSERVED	FACULTATIVE SPECIES OBSERVED
DP-7	Vernal Pool	PFO in BVW D15	8 (2018) 6 (2021)	13 (2018) 8 (2021)	~50 fairy shrimp (2018) No species observed in 2021	1 American toad (2018) No species observed in 2021
DP-8	Amphibian Breeding Area	Upland in the maintained access road between BVW D14 and BVW D15	7 (2018)	12 (2018)	1 wood frog egg mass (2018) No surveys conducted in 2021	3 mating pairs of American toads (2018) 3 single American toads (2018) American toads calling (2018) No surveys conducted in 2021
DP-5	Vernal Pool	PFO in BVW D7	14 (2018) 10 (2021)	17 (2018) 14 (2021)	3 wood frog egg masses (2018) ~hundreds of wood frog tadpoles (2018) ~55 spotted salamander egg masses (2018) 14 wood frog egg masses (2021) 10 wood frog tadpoles (2021) 6 spotted salamander egg masses (2021)	No species observed in 2018 or 2021
DP-4	Vernal Pool	PSS in BVW D11	6 (2018) 10 (2021)	13 (2018) 13 (2021)	~30 spotted salamander egg masses (2017) 2 wood frog egg masses (2018) 8 spotted salamander egg masses (2018) 10 wood frog egg masses (2021) ~50 wood frog tadpoles (2021) 16 spotted salamander egg masses (2021)	No species observed in 2018 or 2021
DP-2	Vernal Pool	PSS in IVW 7A	10 (2018) No water observed during 2021 survey	12 (2018) No water observed during 2021 survey	5 spotted salamander egg masses (2017) ~20 spotted salamander larvae (2017) 2 wood frog egg masses (2018) 7 spotted salamander egg masses (2018) ~100 fairy shrimp (2018)	American toad calling (2018)

VERNAL POOLS AND AMPHIBIAN BREEDING AREAS TO BE IMPACTED IN THE TABLE 3

ID NUMBER	POOL TYPE	EXISTING COVER TYPE	AVERAGE WATER DEPTH (IN.)	Maximum Water Depth (IN.)	OBLIGATE SPECIES OBSERVED	FACULTATIVE SPECIES OBSERVED
LP-1	Vernal Pool	PSS in BVW L1	10 (2018) 6 (2021)	14 (2018) 10 (2021)	2 wood frog egg masses (one hatching) (2016) ~50 wood frog tadpoles (2018) 2 old wood frog egg masses (2018) 3 wood frog egg masses (2021) ~50 wood frog tadpoles (2021)	No species observed in 2018 or 2021
DP-3	Amphibian Breeding Area	Upland in an ATV tire rut	6	13	20 wood frog egg masses (2017) 1 wood frog adult (2017) 3 spotted salamander egg masses (2017)	

3.1.14 Standing Water Present at Least Part of the Growing Season

Shallow pockets of standing water occur throughout several of the BVWs (BVW 20, BVW 19A, BVW 15, BVW D14, BVW 12, BVW D11A, BVW D11, BVW D8, BVW D7, BVW D6, and BVW L1) in the Survey Area. These water-filled depressions provide non-breeding amphibians foraging and rehydration opportunities. Water was present in BVWs during the wildlife habitat evaluations in November 2017. The presence of standing water observed during the wetland delineations in summer 2017, as well as during the vernal pool investigations in spring 2018 suggests that standing water remains in these pockets into the growing season.

The Copicut Reservoir provides a permanent water source for breeding amphibians such as green frogs (*Lithobates clamitans*), bullfrogs (*Lithobates catesbeianus*), and pickerel frogs (*Lithobates palustris*). The Reservoir also provides a habitat for turtles and foraging waterfowl.

3.1.15 Flat Rocks within Streams

The presence of flat rocks within streams provides cover for stream salamanders. In intermittent stream (SD5) one medium-sized flat rock was observed in the stream channel which may possibly provide cover for stream salamanders. The perennial Copicut River (SD-11) had several medium-sized flat rocks present in the riverbed where the Copicut River flows under Quanapoag Road.

3.1.16 Areas of Ice-Free Open Water in Winter

The Copicut Reservoir may contain areas of ice-free open water in the winter. These areas provide rehydration and foraging opportunities for resident wildlife species within the Survey Area. The Copicut River (SD-11) also most likely continues to flow during the winter months as it empties into the Copicut Reservoir.

3.1.17 Perennial and Intermittent Streams

Only one perennial stream (SD11), the Copicut River, flows through the Survey Area and is associated with BVW D11. Four intermittent streams are located within the Survey Area. These streams include SD-

20 (flowing through BVW D20 and into Dartmouth), SD-19 (flowing through BVW 19A), SD-8 (flowing through BVW D8), and SD-5 (flowing through BVW D6).

Streams provide a variety of purposes in the landscape which include wildlife habitat for birds, amphibians, reptiles, and insects. Streams assist with groundwater recharge, improving water quality, and serve as travel corridors for wildlife species (Mitch and Gosselink 2015).

3.1.18 Wildlife Habitat Characteristics Summary

Summarized in Table 1 are the wildlife habitat characteristics discussed in Sections 3.1.1 through 3.1.17 that were observed at the 17 sites during the field surveys. Wetlands are presented in Table 1 from east to west in the Study Area beginning at the Fall River/Dartmouth Town line and heading west to the Bell Rock Substation.

Wildlife observation and signs were also collected during the field wildlife habitat evaluations and are listed in Table 2.

3.2 Landscape Context

In addition to the site specific habitat characteristics, the MassDEP Guidance more broadly addresses landscape context such as habitat continuity and connectivity, as well as the effects of existing habitat degradation.

The existing utility ROWs in the Survey Area serve as a connector to adjacent areas of habitat and are, therefore, important for connectivity with adjoining natural habitats. The Project area is surrounded by dense upland and wetland forest, providing a large expanse of unfragmented forest habitat. The Project site is located within the Southeastern Massachusetts Bioreserve (Bioreserve), with over 13,600 acres of protected land in Fall River and Freetown that lies to the east of downtown Fall River. The Bioreserve is managed by the Commonwealth of Massachusetts, the City of Fall River, and the Trustees of Reservation and offers diverse habitats and natural communities. The location of the Bioreserve in southeastern Massachusetts serves as vital habitat since this area is one of the fastest growing regions in the state with residential, commercial, and industrial zones. Wildlife currently inhabiting the Project area are accustomed to the existing utility infrastructure in the area. The existing ROWs extending to the west, south, and east of the existing substation provide natural shrubland habitats embedded within large tracts of continuous and connected forest habitats.

The Project is not anticipated to permanently impact the integrity of the bordering Bioreserve land as a wildlife habitat connector to the adjacent forests. After Project completion the ROWs will continue to serve a role as a landscape connector to wildlife habitats, as well as providing habitats for wildlife species.

3.3 Habitat Degradation

The representative wetland impact areas reviewed during the wildlife habitat evaluation have all been subject to previous alterations, predominately from the existing NEP infrastructure and mild habitat degradation as a result of recreation activities, including ATV usage.

A few wetlands contain invasive species. The dominant invasive species is Japanese stiltgrass (*Microstegium vimineum*) which is present in four BVWs but with a \leq 5.0 percent cover. Multiflora rose (*Rosa multiflora*) was also observed in one BVW in the ROW.

No observations of trash dumping, chemical contamination, or erosion and sedimentation problems were observed within the Survey Area while conducting the wildlife habitat evaluation, wetland surveys, and vernal pool investigations.

All wetlands have been altered to some degree from the NEP ROW, chiefly by removal of trees. Temporary disturbances will continue to occur along the existing transmission line ROW since NEP conducts a regular vegetation maintenance program of the existing transmission line ROWs. NEP's ROW vegetation practices encourage the growth of low-growing shrubs and other vegetation which provide a degree of natural vegetation control. Vegetation management is necessary to ensure the reliable and safe delivery of electric services to NEP customers. This is accomplished by allowing for the proper clearance between vegetation and electrical conductors and supporting structures. Vegetation maintenance will continue to occur in accordance to National Grid's currently approved Vegetation Management Plan, which is in compliance with the Massachusetts Rights-of-Way Management regulations (333 CMR 11.00) administered by the Massachusetts Department of Agricultural Resources) (National Grid 2013).

Tree clearing, earth-disturbing work, and the filling of wetlands will be required for the installation of the new 115 kV Line. Tree-clearing will result in the conversion of forested wetlands to either scrub-shrub or emergent wetlands. Once the trees are removed, these once forested sections will be maintained as scrub-shrub or emergent wetlands. Therefore, a change in wildlife habitat will occur.

4.0 RARE SPECIES

NEP evaluated state agencies' data to determine whether any Massachusetts State-listed, and/or -proposed, -endangered, or -threatened species or critical habitats are known to occur in the Project ROWs. This section addresses the consultation process with the Massachusetts NHESP which is part of the Massachusetts Division of Fisheries and Wildlife. The identified wildlife species are discussed below.

Based on coordination with the Massachusetts NHESP, three NHESP State-listed animal species or priority habitats of rare species are located in the vicinity of the Project including the eastern whip-poorwill (*Caprimulgus vociferus*), eastern box turtle (*Terrapene carolina*), and marbled salamander (*Ambystoma opacum*).

NEP is actively coordinating with the NHESP regarding the potentially present within these mapped areas of priority habitat and will continue with this consultation in order to minimize or avoid potential adverse effects on rare species during design, construction, and operation of the Project. Species specific surveys are being conducted for the eastern whip-poor-will and the eastern box turtle. Input from the NHESP on June 21, 2018, concluded that the marbled salamander is documented from sites north and south of the Project area. Therefore, no species-specific surveys are required.

5.0 BEST MANAGEMENT PRACTICES

Throughout the planning and design phases of the Project, wetland impacts have been minimized to the greatest extent possible by using an existing ROW, utilizing existing access roads, and avoiding the placement and construction of structures and access roads in wetlands and watercourses, where practicable. However, given the scale and landscape setting of the Project, certain wetland and watercourse resource impacts associated with the development of the Project cannot be avoided.

Permanent fill will be placed in wetlands in the form of structure foundations. Trees will be cleared in select locations within wetlands to accommodate on the installation of the new Line. However, wetland scrub-shrub and emergent vegetation will remain in these proposed tree clearing areas.

BMPs, as detailed in National Grid's Environmental Guidance document EG-303NE, will be employed to minimize disturbances to wetlands during construction of the Project.

5.1 Structures

Specific measures will be taken when installing structures. Temporary soil erosion controls will be installed around structure work sites in or near wetlands to minimize the potential for soil erosion and sedimentation. All soil erosion and sediment controls and other applicable construction BMPs will be inspected and maintained on a routine basis. Grading in wetlands will be limited for structure foundations. Construction mats will be used in wetlands to provide a safe workspace. Spoil piles will be placed in uplands, where possible, or properly contained on construction mats in wetlands.

5.2 Access Roads

Existing access roads will be used to the extent practicable during the construction phase of the Project to minimize access through wetlands. Where access roads must be improved or possibly developed in certain sections, the roads will be designed, where practical, so as not to interfere with surface water flow or the functions of the wetland. Temporary construction matting for access roads across wetlands will be installed to provide safe passage through the wetlands. The type of stabilization measures to be used in wetlands will depend on soil saturation and depth of organic matter. All temporary access roads through wetlands will be restored following the completion of installation activities by removing the construction mats, re-grading the area (as necessary) to pre-construction elevations to the extent practicable, and revegetating the wetlands.

Mat bridges or other bridging techniques will be used to span streams where necessary. Temporary bridge installation will be avoided during peak flows or when the waterway to be crossed is above bankfull width conditions, with the exception of emergency situations or other unforeseen circumstances. If water is present at the time of construction, the ambient water flow will be maintained and water flows will not be constrained or interrupted at any time during construction. In addition, controls will be installed to prevent or minimize turbidity and sediment loading into watercourses. These controls may include the use of crushed stone approach aprons onto mat bridges, stone check dams, water bars, diversion channels, and soil erosion and sediment controls. Existing riparian zone vegetation will also be maintained, to the extent feasible, along the banks of the stream.

5.3 Construction Areas

The size, shape, location, and configuration of work pads were evaluated to minimize impacts to wetlands and watercourses to the extent feasible. Temporary construction matting will be placed on the existing wetland vegetation where wetland impacts could not be avoided. The type of work pad material chosen will depend upon soil saturation and depth of organic matter in the wetland.

Temporary construction matting will be removed upon completion of the Project. Wetlands will be restored to pre-construction configuration and elevations to the extent practicable. Vegetation will also be restored within the wetland through native seeding.

5.4 Compensatory Wetland and Flood Storage Mitigation

Compensation for the permanent loss of wetlands and BLSF is still in the preliminary planning phase. Consultation will occur with state and federal agencies, as well as with the City of Fall River Conservation Commission to develop wetland mitigation plans that compensate for unavoidable wetland loss as a result of the Project. Compensatory wetland mitigation options for the Project may include insitu wetland restoration along the Project Area, wetlands replication/creation (on- or off-ROW), and/or, the Massachusetts Department of Fish and Game In-Lieu Fee Program. . NEP will work with the City of Fall River Conservation Commission to develop a mitigation plan for the loss of BLSF associated with the installation of new structures.

5.5 Wildlife Mitigation and Wildlife Habitat Enhancement

In areas where trees will be cleared there are several wildlife habitat mitigation activities which can be performed to enhance wildlife habitat in the surrounding area. Such activities may include: seeding disturbed areas with a conservation seed mix, leaving woody debris to create cover for wildlife, and leaving snag trees as potential wildlife habitat.

6.0 PROJECT IMPACTS AND MITIGATION

Construction of the Project will result in temporary, permanent, and secondary impacts to wetland resources. Secondary impacts generally involve the conversion of forested wetland habitat to scrub-shrub or emergent wetland habitat, whereby the cover type changes but results in a no net-loss of wetlands. The following section describes the permanent and temporary impacts associated with construction of the Project including temporary work pads to facilitate construction, vegetation removal, installation and excavation for pole foundations/structures for the overhead transmission line, access road upgrades, and the installation of the new overhead transmission line. This section also addresses the associated impacts which are most likely to occur to wildlife as a result of the Project and potential mitigation actions which could be implemented.

6.1 Anticipated Temporary Habitat Impacts and Mitigation

Wildlife currently using the forested portion of the NEP ROW that are proposed to be widened will be temporarily impacted by construction of the Project, but large blocks of intact woodland will continue to remain adjacent to the ROW corridor. Larger, more mobile species such as white-tailed deer are expected to temporarily relocate from the construction area, but are unlikely to be permanently impacted as a result of construction and operation of the Project. Small mammals such as gray squirrels (*Sciurus carolinensis*), woodchucks (*Marmota monax*), skunks (*Mephitis mephitis*) and raccoons (*Procyon lotor*), as well as herpetofauna are also likely to move away from areas of construction activity. Depending upon the time of year, some avifauna may also be temporarily displaced, possibly impacting breeding and nesting activities, but are otherwise likely to return after construction and in subsequent years. In wetlands which will have temporary work pads or temporary construction access, the disturbed areas will be re-graded to pre-existing conditions and allowed to revegetate.

6.2 Anticipated Permanent Habitat Impacts and Mitigation

The removal of mature trees in forested areas of the NEP ROW to accommodate the new overhead transmission line will result in long-term impacts, but these impacts will be incremental and localized on both the vegetation and associated wildlife habitats. The removal of forest vegetation may affect wildlife species composition by favoring species that prefer shrub land, emergent, or open habitats to those that inhabit forested communities. A study conducted in the Northeast from northern Connecticut into southern New Hampshire along a powerline corridor indicated an increase in early successional plant and wildlife usage of powerline corridors following removal of trees from ROWs (Wagner et al. 2014). Another study in western Massachusetts found transmission line corridors provided habitat for shrub land birds of high regional conservation priority (King et al. 2009). ROWs also serve as open corridors connecting non-contiguous natural areas (Temple 1996).

Based on some of the published literature, the creation of additional shrub land habitat along the NEP ROWs will represent a long-term positive effect on disturbance and shrub-dependent avian species, as well as species from other trophic levels such as bees and butterflies, since shrub land habitat is otherwise declining in New England (King et al. 2009; Wagner et al. 2014). This decline is a result of various factors (e.g., development, ecological succession, absence of fire) (DeGraaf and Miller 1996). Additionally, most of the historic shrub land in the Northeast is irreversibly gone due to permanent human development; therefore, management for shrub habitat dependent species and for biodiversity cannot occur at these locations. Studies conducted in the Northeast have shown that populations of most bird species associated with shrub land habitats have declined sharply and these shrub land species have been shown to make use of human-impacted habitats including utility ROWs (Hunter et al. 2001). Shrub land

birds and other disturbance dependent species are now more dependent than ever on human activities to maintain the habitat required for their survival (King et al. 2009; Confer and Pasco 2003; Confer et al. 2008). Actually, in response to shrub land habitat loss and the decline in shrub land dependent species in the Northeast, the USFWS has recently approved the Great Thicket National Wildlife Refuge, which will be dedicated to managing shrub land wildlife habitat in the Northeast (USFWS 2016). So in this regard, transmission line ROW is considered a major source of shrub land habitat (Saucier 2003).

The management and maintenance of ROW creates early successional habitats dominated by shrub vegetation and open areas with dense grasses and other herbaceous vegetation. These habitats within the ROW can provide wildlife opportunities such as nesting for birds, browsing for deer, and cover for small mammals (Ballard et al. 2004). In addition to the initial tree clearing to accommodate the new transmission line, routine vegetation maintenance will continue within the NEP corridor. Vegetation on the existing ROW is managed in accordance with the NEP vegetation management program (National Grid 2018); accordingly, trees that could interfere with the operation of the transmission lines are routinely removed from the ROW and trees along the edges are periodically pruned or removed. Vegetation will be maintained as low-growth shrubs or grasses and herbs. Vegetation removal for the new transmission line will be performed using mechanized methods. Where removal of woody vegetation is required, vegetation will be cut flush with the ground surface to the extent possible. Where practical, trees will be felled parallel to the ROW to minimize the potential for off-ROW vegetation damage.

NEP designed the Project to first avoid and then minimize permanent impacts to wetlands to the extent practicable, but unavoidable permanent fill of 30 square feet for structures will be required for the new overhead transmission line. With respect to the surrounding available wetland wildlife habitat resources associated with the transmission line ROWs and the Bioreserve, it is not expected this permanent fill would result in a long-term negative impact on the ability of the area to provide valuable wildlife habitat for the existing assemblage of wetland-dependent species.

In areas where trees will be cleared there are several mitigation activities which can be performed to enhance wildlife habitat as a result of tree loss. Such activities may include: seeding disturbed areas with a conservation seed mix, leaving woody debris to create cover for wildlife, and leaving snag trees as potential wildlife habitat.

7.0 CONCLUSION

All wetlands within the NEP Survey Area provide wildlife habitat functions including providing food, shelter, migration, breeding, and overwintering areas for wildlife. Important wildlife habitat characteristics have been identified within the Survey Area. These include:

- Upland/wetland food plants (hard mast and fruit).
- Shrub thickets/streambeds with abundant earthworms.
- Shrub vegetation suitable for veery nesting.
- Live trees (>30-inch diameter at dbh).
- Standing dead trees (snags).
- Potential small mammal burrows.
- Dense herbaceous cover.
- Large woody debris on ground.
- Logs under the water's surface.
- Overhanging shrub branches at, or within one meter above the water's surface.
- Rock piles and crevices suitable as potential habitat.
- Live standing vegetation overhanging water or offering good visibility of open water.
- Depressions that serve as vernal pools and/or amphibian breeding areas.
- Standing water present at least part of the growing season for use by non-breeding amphibians.
- Standing water present at least part of the growing season suitable for use by turtles and foraging waterfowl.
- Flat rocks within exposed portions of streambeds.
- Areas of ice-free open water in winter.
- Perennial and intermittent streams.

NEP will develop a wetland restoration and mitigation plan for the Project ROW. Possible wildlife habitat enhancements that may be proposed include:

- Creating additional snags for denning and nesting sites where possible/available.
- Stockpiling woody debris to provide cover.

Alterations to wetlands (which include BVW, BLSF, and RFA) which have impacts above the thresholds permitted under the WPA are only permitted if the impacts will have no adverse impact on wildlife habitat. Adverse effects on wildlife habitat mean the alteration of any habitat characteristic listed in 310 CMR 10.60(2), insofar as such alteration will, following two growing seasons of project completion and thereafter (or, if a project would eliminate trees, upon the maturity of replanted saplings) substantially reduce its capacity to provide the important wildlife habitat functions listed in 310 CMR 10.60(2). Such performance standard, however, shall not apply to the habitat of rare species which are covered by the performance standards established under 310 CMR 10.59.

There are no adverse effects on wildlife habitat since resource areas within the Survey Area will not be substantially reduced in their function to serve as valuable sources of wildlife habitat in an area. In the areas of proposed tree clearing, where forest habitat will be converted to scrub-shrub and emergent habitats, wildlife will still be able to use the area along the transmission line ROWs.

Suburban wildlife species using the Project area will most likely not be impacted in response to the increase in the scrub-shrub habitat type as a result of the Project. For resource areas lost as a result of the Project, the proper mitigation measures will be taken to compensate for the loss in wildlife habitat.

NEP has incorporated appropriate measures to avoid and/or minimize and mitigate adverse impacts. The proposed alterations will not substantially reduce the long-term capacity of the site to provide food, cover, migratory, and breeding areas, especially when viewed in terms of landscape scale availability of similar habitat types. While the habitat functions associated with forested wetland will be lost due to tree removal and/or fill in these localized areas, it is expected that adjacent similar habitat types will continue to provide basic habitat requirements of the existing assemblage of wetland-dependent species. NEP will compensate for all permanent loss of wetland per conformance with the requirements of the state and federal permitting agencies. NEP will consult with the City of Fall River Conservation Commission to develop wetland mitigation plans that adequately compensate for wetland loss as a result of the Project. Compensatory wetland mitigation options for the Project may include wetland restoration along the Project Area, wetlands creation/replication (on- or off-ROW), the Massachusetts Department of Fish and Game In-Lieu Fee Program.

8.0 **REFERENCES**

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ATTACHMENT A WILDLIFE HABITAT EVALUATION DATA FORMS



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.

Acushnet to Fall River Reliability Project	
Project Name	
Fall River, MA. Bordering Vegetated Wetland L1 and Vernal Pool LP-1	
Location	
Please refer to breakdown of secondary and temporary impacts below.	11/29/2021
Size of Area Being Impacted	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
 Secondary (tree clearing converted to shrub or emergent vegetation) 		661 sf (0.02 acres)		0.02 acres
2. Temporary (Work pads, pull pads)		2,309 sf (0.05 acres)		0.05 acres
3.				
4.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.

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.

M. Lamothe

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

Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Fall River, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland L1 and Vernal Pool LV1	
Impact Area (number/name)	
11/14/2017	
Date(s) of Site Visit(s) and Data Collection	
Cloudy, 44 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/29/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy Sate

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:	<u>-</u>	
Class:	Forested	Subclass:	Needle/Leaved Evergreen and Broad-Leaved Deciduous	
Hydrology/Wa	ater Regime			
Permane	ntly flooded	Saturated		
Intermitte	ntly exposed	Temporarily flooded		
Semi-per	manently flooded		y flooded	
🛛 Seasonal	ly flooded	Artificially flo	ooded	

- 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)
 - "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.

Community Name		
Vegetation Description		
Physical Description		



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	<u>85</u>		<u>60</u>	5	20	5
	Plant Lists (spec a dominant plan		omprise		Woody vines the vegetative c	Mosses over in each	Herbaceous n strata; "*" designates
	Strata Plant Species		oecies	Strata		Plant Species	
	Tree		Pinus st	robus (60%)*	Herb		Pinus strobus (<5%)
	Tree Acer rubrum (25%		orum (25%)*	Woody Vine		Smilax rotundifolia (5%)	
	Tree		Quercus	s rubra (5%)			
	Shrubs		Vacciniu	ım osum (35%)*			
	Shrubs			alnifolia (15%)*			
	Herb		Vacciniu corymbo	ım osum (<5%)			
C.	Inventory (Soils))					
		0-3% slop	pes, extremely stony		Very Poorly D	Drained	
	Soil Survey Unit Organic Hemic (0"-6"), Organic Sapric (6"-8"), Mucky Silt Loam (8"-9")			Drainage Class 9" Depth			
	6" Depth to Water Tabl	le					
III.					source areas)		
	If the following hal	bitat chara	cteristics a	re present, desc	ribe & quantify the	m on a separ	ate sheet & attach.
	Wildlife Food						
	Important Wetla	nd/Aquati	c Food P	lants (smartwee	eds, pondweeds,	, wild rice, b	ulrush, wild celery)
	Abundant		🗌 Pr	esent	🛛 Absent		

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

Present Abundant

Shrub thickets or streambeds with abundant earthworms (American woodcock)

Present

Absent

Absent

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

Absent



Wildlife Habitat Protection Guidance

Number of trees	s (live or dead) >	30" DBH:	0		
Number (or den	sity) of Standing	Dead Trees (poter	ntial for cavities	and perches):	
1				• •	
6-12" dbh	12-18" c	dbh	0 18-24" dbh	>	24" dbh
Number of Tree	Cavities in trunk	s or limbs of:			
0		het owl, screech owl, b			
0				jbirds)	
12-18" diameter (e.ç	g., hooded merganse	r, wood duck, common	goldeneye, mink)		
0 >18" diameter (e.g., h	nooded merganser. wo	od duck, common golde	neve. common mero	anser. barred owl. n	nink. raccoon. fisher)
Small mammal I			,	,,.,,	, , ,
Abundant		Present	🛛 Absent		
Cover/Perches/I	Basking/Denning	/Nesting Habitat			
Dense herb	aceous cover (vc	oles, small mamma	als, amphibians	& reptiles)	
Large wood	y debris on the g	round (small mam	mals, mink, am	phibians & rept	tiles)
Rocks, crev	rices, logs, tree rc	oots or hummocks	under water's	surface (turtles,	snakes, frogs)
		overhanging brand tes, frogs, wading			
		w lana awitabla far			
_	crevices, or hollo	w logs suitable lor	•		
_	crevices, or hollo	porcupine		bobcat	🗌 turkey vເ
 Rock piles, of otter Live or dead 	☐ mink d standing vegeta	_	bear bear water or offerin		·
 Rock piles, d otter Live or dead osprey, king 	☐ mink d standing vegeta gfisher, flycatcher	porcupine	bear water or offerin		·
 Rock piles, d otter Live or dead osprey, king 	☐ mink d standing vegeta gfisher, flycatcher at may serve as s	porcupine porcupine ation overhanging s, cedar waxwings	bear water or offerin		·
 Rock piles, d otter Live or deac osprey, king Depressions that 	☐ mink d standing vegeta gfisher, flycatcher at may serve as s ⊠ I	porcupine ation overhanging s s, cedar waxwings easonal (vernal/au	bear water or offerin) utumnal) pools	g good visibility	•
 Rock piles, d otter Live or deac osprey, king Depressions that 	☐ mink d standing vegeta gfisher, flycatcher at may serve as s ⊠ I present at least p	porcupine ation overhanging s, cedar waxwings easonal (vernal/at Present part of the growing	bear water or offerin b) utumnal) pools Absent season, suitab	g good visibility le for use by	•
 Rock piles, d otter Live or dead osprey, king Depressions that Standing water particular 	☐ mink d standing vegeta gfisher, flycatcher at may serve as s ⊠ I present at least p	porcupine ation overhanging s is, cedar waxwings easonal (vernal/au Present part of the growing	bear water or offerin b) utumnal) pools Absent season, suitab	g good visibility le for use by nphibians (forag	of open water (

Present Absent



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data F	Form (continued)		
Important habitat chara	<u>cteristics (if present, des</u>	<u>cribe and quantify t</u>	<u>hem on a separate sheet)</u>
Medium to large (> 6"), for spring & two-lined sa		n (cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky salar		eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fir	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangin	g banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	ank swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open v	water in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-o	drained, sandy soil suitat	ble for turtle nesting	I
	Present	🛛 Absent	
<u>Wildlife dens/nests (if p</u>	resent, describe & quant	<u>ify them on the bac</u>	<u>k of this sheet)</u>
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

ppendix B: Detailed Wildlife Habitat Eval	luation	
art 2. Field Data Form (continued)		
Project area is within:		
100' of beaver, mink or otter den, bank swallo	w 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 & quanti	fy them on a separate sheet)	
Emergent wetland vegetation at least seasonally f green heron, black-crowned night heron, king rail,		n (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least s (mallard, American bittern, sora, common snipe, r		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent
Cattail emergent wetland vegetation at least seas	onally flooded during the growing	season
Flooded > 5 cm (marsh wren)	Present	Absent
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent
Fine-leafed emergent vegetation (grasses and se season (common snipe, spotted sandpiper, sedge		during the growing
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent
. Landscape Context		
Habitat Continuity (if present, describe the lands importance for area-sensitive species)	scape context on a separate shee	t and its
Is the impact area part of an emergent marsh at least	1.0 acre in size?	🛛 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

٩p	pendix E	3:	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., purple loosestrife, *Phragmites*, glossy buckthorn)
- 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
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use the return
key.

Acushnet to Fall River Reliability Project	
Project Name	
Fall River, MA. Bordering Vegetated Wetlands D1and D2	
Location	
Please refer to breakdown of permanent, secondary, and temporary	11/23/2021
impacts below.	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. D2: Permanent: Structure footprint		— 6 sf		- 6 sf
2. D2: Temporary (work pads and access)		3,967 sf (0.10 acres)		0.09 acres
3. D1: Temporary (work pads and access)		1 ,629 sf (0.04 acre <u>s)</u>		0.04 acres
4.			<u> </u>	-
5.			. <u></u>	
6.				
7.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.

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.

mhy date

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

M. Lamothe Typed or Printed Name Bureau of Resource Protection - Wetlands Program



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

Fall River, MA	
Project Location (from NOI page 1)	
Plot 2. Bordering Vegetated Wetlands D1 and D2	
Impact Area (number/name)	
11/14/2017	
Date(s) of Site Visit(s) and Data Collection	
Cloudy, 44 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/23/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

ming date

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:	<u>-</u>	
Class:	Forested	Subclass:	Broad-Leaved Deciduous	
Hydrology/Wa	ter 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)
 - "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.

Community Name		
Vegetation Description		
Physical Description	 	



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover:	85 Trees (> 20')	60 Shrubs (< 20')	5 Woody vines	60 Mosses	5 Herbaceous	
	cies that compris nt species for the		the vegetative co	over in each	strata; "*" designates	
Strata	Plant	Species	Strata		Plant Species	
Tree	Acer rubrum (40%)* Shrub		,	Pinus strobus (10%)		
Tree	Pinus strobus (15%) Shrub			Vaccinium corymbosum (5%)		
Tree	Quero	cus alba (10%)	Herb		Quercus alba (<5%)	
Tree	Betula (10%)	a alleghaniensis	Herb		llex verticillata (<5%)	
Tree	Fraxir (5%)	nus americana	Woody Vine		Smilax rotundifolia (5%)*	
Shrub	<u> </u>	a alnifolia (45%)*				

C. Inventory (Soils)

Whitman FSaL, 0-3% slopes, extremely stony Soil Survey Unit Organic Fibric (0"-2"), Mucky Silt Loam (2"-10") Texture (upper part)	Very Poorly Drained Drainage Class 10" Depth
NA 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 F	ood
------------	-----

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



Wildlife Habitat Protection Guidance

rt 2. Field D	ata Form (d	continued)			
Number of trees ((live or dead) > 3	30" DBH:	0		
Number (or densi	tv) of Standing I	Dead Trees (pote	ntial for cavities	and perches):	
,	•	ü		• •	
6-12" dbh	12-18" d	bh	18-24" dbh	> 24	" dbh
Number of Tree C	Cavities in trunks	s or limbs of:			
0 6-12" diameter (e.g., t 0			-	birds)	
<u>0</u> 12-18" diameter (e.g., o	hooded merganser	, wood duck, commor	n goldeneye, mink)		
0 >18" diameter (e.g., ho	oded merganser, woo	od duck, common golde	eneye, common merg	anser, barred owl, min	k, raccoon, fisher)
Small mammal bu	urrows				
Abundant	□ F	Present	🛛 Absent		
Cover/Perches/Ba	asking/Denning/	Nesting Habitat			
		-	ala amphihiana	e rontiloo)	
Dense herba		les, small mamm	ais, ampriivians	a repuies)	
Large woody	debris on the gr	ound (small mam	imals, mink, am	phibians & reptile	es)
Rocks, crevic	es, logs, tree ro	ots or hummocks	under water's s	urface (turtles, si	nakes, frogs)
		overhanging bran es, frogs, wading			
Rock piles, cr	revices, or hollow	w logs suitable fo	r:		
otter	mink	porcupine	🗌 bear	bobcat	turkey vul
		tion overhanging s, cedar waxwing		good visibility o	f open water (e
Depressions that	may serve as se	easonal (vernal/a	utumnal) pools		
	E F	Present	🛛 Absent		
Standing water pr	resent at least p	art of the growing	season, suitabl	e for use by	
Breeding amp	ohibians	N N	on-breeding am	phibians (foragin	g, re-hydration
Turtles		🗌 F	oraging waterfo	wl	
Sphagnum humm to pools of standi				gs, overhanging	or directly adja

Present Absent



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands Program

	bitat Prot Wildlife Habitat Ev		Guidance
art 2. Field Data	Form (continued)		
Important habitat chara	<u>icteristics (if present, des</u>	cribe and quantify t	hem on a separate sheet)
Medium to large (> 6"), for spring & two-lined s		n (cover for stream	salamanders and nesting habitat
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky salaı		eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fi	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	oank 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 suitat	ble for turtle nesting]
	Present	🛛 Absent	
Wildlife dens/nests (if p	resent, describe & quant	ify them on the bac	k 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

Den(s) present of



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Eva	aluation	
Part 2. Field Data Form (continued)		
Project area is within:		
☐ 100' of beaver, mink or otter den, bank swal	low 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 & quan	tify them on a separate sheet)	
Emergent wetland vegetation at least seasonally green heron, black-crowned night heron, king ra		n (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least (mallard, American bittern, sora, common snipe,		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	n) 🗌 Present	🛛 Absent
Cattail emergent wetland vegetation at least sea	sonally flooded during the growing	season
Flooded > 5 cm (marsh wren)	Present	Absent
Flooded > 25 cm (least bittern, common moorhe	n) 🗌 Present	🛛 Absent
Fine-leafed emergent vegetation (grasses and s season (common snipe, spotted sandpiper, sede		during the growing
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhe	n) 🗌 Present	🛛 Absent
. Landscape Context		
Habitat Continuity (if present, describe the land importance for area-sensitive species)	Iscape context on a separate sheet	and its
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

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41	opendix	Б : L	Jetaileo	vvnante	париат	Evaluation
-						

Part 2. Field Data Form (continued)

2.5 acres in size?	🛛 Yes	🗌 No
5.0 acres in size?	🛛 Yes	🗌 No
10.0 acres in size?	🛛 Yes	🗌 No
25.0 acres in size?	🗌 Yes	🛛 No
f contiguous forested	habitat at least	
50 acres in size?	🗌 Yes	🛛 No
100 acres in size?	🗌 Yes	🛛 No
250 acres in size?	Yes	🛛 No
500 acres in size?	🗌 Yes	🛛 No
> 1.0 acre in size?	🗌 Yes	🛛 No
> 1.0 acre in size?	Yes	🛛 No
	5.0 acres in size? 10.0 acres in size? 25.0 acres in size? f contiguous forested 50 acres in size? 100 acres in size? 250 acres in size? 500 acres in size? > 1.0 acre in size?	5.0 acres in size? 10.0 acres in size? 25.0 acres in size? 4 Yes 25.0 acres in size? 50 acres in size? 100 acres in size? 250 acres in size? 250 acres in size? 4 Yes 250 acres in size? 4 Yes 500 acres in size? 500 acres in size? 4 Yes 500 acres in size? 500 acres in size?

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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 1. Summary Sheet



Acushnet to Fall River Reliability Project	
Project Name	
Fall River, MA. Bordering Vegetated Wetland D6	
Location	
Please refer to breakdown of impacts below.	11/23/2021
Size of Area Being Impacted	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. D6: Secondary (tree clearing converted to shrub or emergent vegetation)		2,995 sf (0.07 acres		0.07 acres
2.				
3.				
4.	. <u></u>			
5.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.

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.

mhy date

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

M. Lamothe Typed or Printed Name

Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

Fall River, MA	
Project Location (from NOI page 1)	
Plot 4. Bordering Vegetated Wetland D6	
Impact Area (number/name)	
11/14/2017	
Date(s) of Site Visit(s) and Data Collection	
Cloudy, 44 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/23/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy date

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:	
Class:	Forested	Subclass:	Broad-Leaved Deciduous
Hydrology/Wa	ater Regime		
Permane	ntly flooded	Saturated	
Intermitte	ently exposed	Temporarily	flooded
Semi-per	manently flooded		flooded
Seasonal	lly flooded	Artificially floo	oded

- 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)
 - "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.

Community Name		
Vegetation Description		

Physical Description



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation	on
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Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover: Plant Lists (spe a dominant plar		omprise	50 Shrubs (< 20') 10% or more of strata):	0 Woody vines the vegetative co	25 Mosses over in eac	h strata;	15 Herbaceous "*" designates
Strata		Plant Sp	becies	Strata		Plant Sp	pecies
Tree		Acer rub	orum (85%)*				
Tree		Pinus strobus (5%)					
Shrub		Carpinu (40%)*	s caroliniana				
Shrub		\ /	p. (10%)				
Herb		Grass s	p. (10%)*				
Herb		Rubus s	p. (5%)				
Inventory (Soils	5)						
Ridgebury FSaL, 0-3% slopes, extremely stony			Poorly Drained				
Soil Survey Unit				Drainage Class			
Organic fibric (0"-2"), Silt Loam (2"-10")			10"				
Texture (upper part)		Depth					
10"							
Depth to Water Tab	ble						
Important Habitat Features (complete for all resource areas)							
If the following habitat characteristics are present, describe & quantify them on a separate sheet & attach.							

g

C.

III.

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



Wildlife Habitat Protection Guidance

rt 2. Field Data	Form (continued)			
Number of trees (live	or dead) > 30" DBH:	0		
Number (or density) o	f Standing Dead Trees	(potential for cavities	and perches):	
12	0	ŭ	• •	
6-12" dbh	0 12-18" dbh	0 18-24" dbh	> 24	" dbh
Number of Tree Cavit	ies in trunks or limbs of			
0				
	wallow, saw whet owl, screed	ch owl, bluebird, other song	birds)	
0 12-18" diameter (e.g., hood	ed merganser, wood duck, c	ommon goldeneye, mink)		
0	-			
	merganser, wood duck, commo	on goldeneye, common merg	anser, barred owl, mi	ink, raccoon, fishe
Small mammal burrow	VS			
Abundant	Present	🛛 Absent		
Cover/Doroboo/Bookin	a/Donning/Necting He	hitat		
Cover/Perches/Daskir	ng/Denning/Nesting Ha	Ditat		
Dense herbaceou	s cover (voles, small m	ammals, amphibians	& reptiles)	
🛛 Large woody debr	is on the ground (smal	l mammals, mink, am	phibians & reptil	es)
Rocks, crevices, l	ogs, tree roots or humr	nocks under water's s	urface (turtles, s	snakes, frogs
	allen logs, overhanging urtles, snakes, frogs, w			
Rock piles, crevic	es, or hollow logs suita	ble for:		
otter _] mink 🗌 porc	upine 🗌 bear	bobcat	turkey
	ding vegetation overha ngfisher, flycatchers, c		g good visibility o	of open wate
Depressions that may	serve as seasonal (ve	rnal/autumnal) pools		
	Present	🛛 Absent		
Standing water preser	nt at least part of the gr	owing season, suitabl	e for use by	
Breeding amphibi	ans	Non-breeding amp	hibians (foragin	ıg, re-hydratio
Turtles	[Foraging waterfow	4	
	s or mats, moss-covere anding water in spring			or directly
	Present	À Absent	-	



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	Wildlife Habitat Ev		Juluance
art 2. Field Data			
Important habitat chara	cteristics (if present, des	cribe and quantify t	them on a separate sheet)
Medium to large (> 6"), for spring & two-lined s		n (cover for stream	salamanders and nesting habitat
	⊠ Present	Absent	
	banks or within exposed ng habitat for dusky salar		oeds (cover for stream
	🛛 Present	Absent	
Underwater banks of fi	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangir	ng banks (small mammals	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	oank 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 suitat	ole for turtle nesting)
	Present	🛛 Absent	
<u>Wildlife dens/nests (if p</u>	oresent, describe & quant	ify them on the bac	ck 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

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Wildlife Habitat Protection Guidance

App	pendix B: Detailed Wildlife Habitat Evalu	uation				
Pa	rt 2. Field Data Form (continued)					
	Project area is within:					
	100' of beaver, mink or otter den, bank swallow	v colony or turtle nesting area				
	200' of Great Blue Heron or osprey nest(s)					
	☐ 1400' of a Bald Eagle nest ¹					
<u> </u>	Emergent Wetlands (if present, describe & quantify	them on a separate sheet)				
	Emergent wetland vegetation at least seasonally flo green heron, black-crowned night heron, king rail, \		n (wood duck,			
	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 wr					
	Flooded > 5 cm	Present	🛛 Absent			
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent			
	Cattail emergent wetland vegetation at least seaso	nally flooded during the growing	season			
	Flooded > 5 cm (marsh wren)	Present	🛛 Absent			
I	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			
V .	Landscape Context					
	Habitat Continuity (if present, describe the landscape context on a separate sheet and its importance for area-sensitive species)					
I	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
(turtles, frogs, waterfowl, mammals)	5.0 acres in size?	🗌 Yes

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

10.0 acres in size?
Yes

25.0 acres in size? \Box Yes

(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., purple loosestrife, *Phragmites*, glossy buckthorn)

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.

No No

No No

🛛 No

No No



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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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
kev.

Acushnet to Fall River Reliability Project	
Project Name	
Fall River, MA. Bordering Vegetated Wetland D7 and Vernal Pool DP-5	
Location	
Please refer to breakdown of permanent, secondary, and temporary	11/23/2021
impacts below.	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. Secondary (tree clearing converted to shrub or emergent vegetation)		5,758 sf (0.13 acres)		0.13 acres
2.				
3.				
4.			. <u></u>	
5.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.

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.

mhy date

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

M. Lamothe Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Fall River, MA	
Project Location (from NOI page 1)	
Plot 5. Bordering Vegetated Wetland D7	
Impact Area (number/name)	
11/14/2017	
Date(s) of Site Visit(s) and Data Collection	
Cloudy, 44 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/23/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy Sate

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:	-
Class:	Forested	Subclass:	Broad-Leaved Deciduous
Hydrology/Wa	ter Regime		
Permaner	ntly flooded	Saturated	
	ntly exposed	Temporarily	flooded
Semi-perr	nanently flooded		/ flooded
Seasonall	y flooded	Artificially flo	oded

- 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)
 - "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.

Community Name		
Vegetation Description		
Physical Description		



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

В.	inventory (Plant community)					
	% Cover:	90	65	10	<5	10
	Plant Lists (spec	Trees (> 20') cies that comprise t species for the s		Woody vines	Mosses over in each	Herbaceous strata; "*" designates
	Strata Plant		pecies	Strata		Plant Species
	Tree	Quercu	ıs rubra (60%)*	%)* Woody Vine		Smilax rotundifolia (10%)*
	Tree	Acer ru	brum (20%)*			
	Tree	Quercu	ıs alba (10%)			
	Shrub	Vaccin	ium oosum (30%)*			
	Shrub		alnifolia			
	Herb		alnifolia (10%)			
C.	Ridgebury FSaL Soil Survey Unit	., 0-3% slopes, ex Silt Loam (2"-13")	i	Poorly Drained Drainage Class 13" Depth	2	
III.	Important Habi	tat Features (cor	nplete for all reso	ource areas)		
	If the following ha	bitat characteristics	are present, describ	e & quantify them	n on a separa	ate sheet & attach.
	Wildlife Food					
	Important Wetla	nd/Aquatic Food	Plants (smartweed	ls, pondweeds,	wild rice, bu	ılrush, wild celery)
	Abundant	🗌 F	Present	🛛 Absent		
	Important Uplan	d/Wetland Food F	Plants (hard mast a	and fruit/berry p	roducers)	
	🛛 Abundant	🗌 F	Present	Absent		

Shrub thickets or streambeds with abundant earthworms (American woodcock)

Present

Absent

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

Absent



Wildlife Habitat Protection Guidance

Number of trees (live or dead) > 30" DBH:		30" DBH:	0		
Number (or dei	nsity) of Standing	Dead Trees (pote	ntial for cavities	and perches):	
2	4		0	<u> </u>	
6-12" dbh	12-18" c	lbh	18-24" dbh	>2	24" dbh
Number of Tree	e Cavities in trunk	s or limbs of:			
0					
6-12" diameter (e.g	g., tree swallow, saw w	het owl, screech owl, I	oluebird, other song	lbirds)	
-	.g., hooded merganser	r, wood duck, common	goldeneye, mink)		
0	<u> </u>				
	hooded merganser, wo	od duck, common golde	neye, common merç	janser, barred owl, m	INK, raccoon, fishe
Small mammal	burrows				
Abundant		Present	Absent		
		/Neating Lichitat			
Cover/Perches	/Basking/Denning	Inesting Habitat			
Dense herl	paceous cover (vo	les, small mamma	als, amphibians	& reptiles)	
Large woo	dy debris on the g	round (small mam	mals, mink, am	phibians & repti	les)
Rocks, cre	vices, logs, tree ro	oots or hummocks	under water's s	surface (turtles,	snakes, frogs
	vices, fallen logs, d face (turtles, snak				
Rock piles,	crevices, or hollo	w logs suitable for	-		
— -#	🗌 mink	porcupine	bear	🛛 bobcat	turkey
otter	id standing vegeta	_ · ·	water or offering	a aood visibility	-
				<u> </u>	
Live or dea	gfisher, flycatcher		s)		
Live or dea osprey, kin	gfisher, flycatcher at may serve as s	s, cedar waxwings	•		
Live or dea osprey, kin	at may serve as s	s, cedar waxwings	•		
Live or dea osprey, kin Depressions th	at may serve as s	s, cedar waxwings easonal (vernal/ai Present	utumnal) pools	le for use by	
Live or dea osprey, kin Depressions th	at may serve as s	s, cedar waxwings easonal (vernal/a Present part of the growing	utumnal) pools	le for use by nphibians (foragi	ing, re-hydrati

Present Absent



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ppendix B: Detailed	Wildlife Habitat Ev	ection Guidance	
art 2. Field Data	F OIIII (continued)		
Important habitat chara	acteristics (if present, des	cribe and quantify them on a separate sheet)	
Medium to large (> 6"), for spring & two-lined s		n (cover for stream salamanders and nesting habita	t
	Present	⊠ Absent	
	banks or within exposed ng habitat for dusky salar	portions of streambeds (cover for stream manders)	
	Present	Absent	
Underwater banks of fi	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	⊠ Absent	
Undercut or overhangir	ng banks (small mammals	s, mink, weasels)	
	Present	⊠ Absent	
Vertical sandy banks (b	oank 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 suitat	ble for turtle nesting	
	Present	⊠ Absent	
<u>Wildlife dens/nests (if p</u>	oresent, describe & quant	ify 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	

Otter

Mink

Den(s) present of

Beaver



Wildlife Habitat Protection Guidance

Ap	ppendix B: Detailed Wildlife Habitat Evalu	ation			
Pa	art 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 flo green heron, black-crowned night heron, king rail, ${\bf V}$		n (wood duck,		
	Flooded > 5 cm	Present	🛛 Absent		
	Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent		
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, rec				
	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 sedg season (common snipe, spotted sandpiper, sedge v		during the growing		
	Flooded > 5 cm	Present	🛛 Absent		
	Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent		
IV.	Landscape Context				
A.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its		
	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

41	opend	lix B:	Detailed	Wildlife	Habitat	Evaluation
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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	f 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands Program

Wildlife Habitat Protection Guidance

Appendix B: Det	ailed Wildlife	Habitat Eva	luation
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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
kev.

Acushnet to Fall River Reliability Project	
Project Name	
Fall River, MA. Vernal Pool DP2 in Isolated Vegetated Wetland D7A	
Location	
Please refer to breakdown of impacts below.	11/23/2021
Size of Area Being Impacted	Date

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

Name 1. Secondary (tree clearing converted to shrub or emergent vegetation)	Waterbody/ Waterway	Wetland 530 sf (0.01 acres)	Upland*	Total Area 0.01 acres
2.				
3.				
4.				
5.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.

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.

mhy Late

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

M. Lamothe Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Fall River, MA	
Project Location (from NOI page 1)	
Plot 6. Vernal Pool DV2 and Isolated Vegetated Wetland D7A	
Impact Area (number/name)	
11/14/2017	
Date(s) of Site Visit(s) and Data Collection	
Cloudy, 44 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/23/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy Sate

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:	
Class:	Scrub-Shrub	Subclass:	Broad-Leaved Deciduous
Hydrology/Wa	ter Regime		
Permaner	tly flooded	Saturated	
Intermittently exposed		Temporarily flooded	
Semi-pern	nanently flooded		flooded
Seasonall	y 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)
 - "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.

Community N	lame
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Vegetation Description

Physical Description



Wildlife Habitat Protection Guidance

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	J (<i>,</i>						
	% Cover:	15 Trees (>	20')	20 Shrubs (< 20')	0 Woody vines	5 Mosses	20 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		
	Tree		Acer	rubrum (10%)*					
	Tree Shrub		Pinus	strobus (5%)*					
			Vaccinium corymbosum (20%)*						
	Herb		Vacci	nium					
	Herb		corymbosum (20%)* Smilax rotundifolia (5%)						
	Herb			unda regalis)					
C.	Inventory (Soils)							
	Woodbridge FS	aL, 0-8%	slopes	, extremely	Moderately V Drainage Class	Vell Drained	l		
	stony Organic (0"-2"), Silt Loam (2"-4"), Fine Sandy Loam (4"-14")			14" Depth					
	NA Depth to Water Table								
III.	Important Habitat Features (complete for all resource areas)								
	If the following ha	bitat char	acteristic	s are present, de	escribe & quantify the	m on a sepa	rate sheet & attach.		
	Wildlife Food								
	Important Wetla	ind/Aqua	tic Food	d Plants (smartv	veeds, pondweeds	, wild rice, b	oulrush, wild celery)		
	Abundant			Present	🛛 Absent				
	Important Uplan	nd/Wetlar	nd Food	Plants (hard m	ast and fruit/berry	at and fruit/berry producers)			
	Abundant		\boxtimes	Present	Absent				
	Shrub thickets o	or stream	beds w	ith abundant ea	rthworms (America	in woodcocl	k)		
				Present	🛛 Absent				
	Shrub and/or he	erbaceou	s veget	ation suitable fo	or veery nesting				

Present

\square	Absent
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Wildlife Habitat Protection Guidance

Number of tree	s (live or dead) > 3	30" DBH:	0		
	, , , , , , , , , , , , , , , , , , ,				、
,	nsity) of Standing	Dead Trees (pote		and perches	s):
5 6-12" dbh	0	bh	0 18-24" dbh		0 > 24" dbh
	e Cavities in trunks				
0					
6-12" diameter (e.g	g., tree swallow, saw w	het owl, screech owl, I	oluebird, other song	gbirds)	
0 12-18" diameter (e	.g., hooded merganser	wood duck common	aoldeneve mink)		
0					
>18" diameter (e.g.,	hooded merganser, woo	od duck, common golde	neye, common mer	ganser, barred ow	ا, mink, raccoon, fisher)
Small mammal	burrows				
Abundant	X F	Present	Absent		
	· · · · · ·				
Cover/Perches	/Basking/Denning/	Nesting Habitat			
Dense herl	paceous cover (vo	les, small mamma	als, amphibians	& reptiles)	
Large woo	dy debris on the g	round (small mam	mals, mink, an	phibians & re	eptiles)
Rocks, cre	vices, logs, tree ro	ots or hummocks	under water's	surface (turtle	es, snakes, frogs)
	vices, fallen logs, (face (turtles, snak				
Rock piles,	crevices, or hollo	w logs suitable for			
otter	🗌 mink	porcupine	🗌 bear	🗌 bobca	t 🗌 turkey vu
	id standing vegeta gfisher, flycatcher			g good visibil	ity of open water (
	at may serve as s	easonal (vernal/a	utumnal) pools		
Depressions th			Absent		
Depressions th	K F	Present			
	present at least p		_	le for use by	
	present at least p	art of the growing	season, suitab		aging, re-hydratio
Standing water	present at least p	art of the growing	season, suitab	nphibians (for	aging, re-hydratio

Present Absent



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data F	orm (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 fin	e silt and/or clay (beave	r, muskrat, otter)				
	Present	🛛 Absent				
Undercut or overhangin	g banks (small mammal	s, mink, weasels)				
	Present	🛛 Absent				
Vertical sandy banks (b	ank swallow, kingfisher)					
	Present	🛛 Absent				
Areas of ice-free open v	vater in winter					
	Present	🛛 Absent				
Mud flats						
	Present	🛛 Absent				
Exposed areas of well-o	drained, sandy soil suital	ole for turtle nesting				
	Present	🛛 Absent				
<u>Wildlife dens/nests (if p</u>	resent, describe & quant	<u>ify them on the bac</u>	<u>k of this sheet)</u>			
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

ppendix B: Detailed Wildlife Habitat Eva	luation				
art 2. Field Data Form (continued)					
Project area is within:					
100' of beaver, mink or otter den, bank swalld	w colony or turtle nesting area				
 200' of Great Blue Heron or osprey nest(s) 1400' of a Bald Eagle nest¹ 					
					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 s (mallard, American bittern, sora, common snipe, r					
Flooded > 5 cm	Present	🛛 Absent			
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent			
Cattail emergent wetland vegetation at least seas	nally flooded during the growing season				
Flooded > 5 cm (marsh wren)	Present	Absent			
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent			
Fine-leafed emergent vegetation (grasses and se season (common snipe, spotted sandpiper, sedge		during the growing			
Flooded > 5 cm	Present	🛛 Absent			
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent			
Landscape Context					
Habitat Continuity (if present, describe the lands importance for area-sensitive species)	scape context on a separate shee	t and its			
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

4 r	opendix	B:	Detailed	Wildlife	Habitat	Evaluation
4~	penaix	υ.	Detailed	Winding	Παρπαι	

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	f 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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.

Acushnet to Fall River Reliability Project				
Project Name				
Fall River, MA. Bordering Vegetated Wetland D8, Intermittent Stream SD8				
Location				
Please refer to breakdown of impacts below.	11/23/2021			
Size of Area Being Impacted	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. Secondary (tree clearing converted to shrub or emergent vegetation)		387 sf (0.008 acres)		0.008 acres
2. Temporary (Stream crossing of SD8)		1,630 sf (0.04 acres)		0.04 acres
3.				
4.				
5.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.

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.

mhy Late

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

M. Lamothe Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Fall River, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D8, Intermittent Stream SD8	
Impact Area (number/name)	
11/14/2017	
Date(s) of Site Visit(s) and Data Collection	
Cloudy, 44 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/23/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy Sate

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:	-	
Class:	Forested	Subclass:	Broad-Leaved Deciduous	
Hydrology/Wa	ter Regime			
Permaner	ntly flooded	Saturated		
Intermittently exposed		Temporarily flooded		
Semi-perr	nanently flooded		/ flooded	
Seasonall	y flooded	Artificially flo	oded	

- 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)
 - "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.

Community Name	 	
Vegetation Description		
Physical Description	 	



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover:	90 Trees (> 20')	50 Shrubs (< 20')	0 Woody vines	25 Mosses	10 Herbaceous
Plant Lists (spe a dominant plar	cies that compr	ise 10% or more of	•		n strata; "*" designates
Strata	Plan	t Species	Strata		Plant Species
Tree	Que	rcus alba (40%)*	Shrub		Fagus grandifolia (<5%)
Tree	Pinu	s strobus (30%)*	Herb		Smilax rotundifolia
Tree	Fagu (10%	us grandifolia	Herb		<u>(<5%)</u> Vaccinium corymbosum (<5%)
Tree		a ovata (10%)	. <u> </u>		
Shrub	Cory (30%	lus cornuta 6)*			
Shrub		s strobus (20%)*			
Inventory (Soils)				
Ridgebury FSa	L, 3-8% slopes,	extremely stony	Poorly Draine	d	
Organic (0"-1"), Loam (10"-11")	Silt Loam (1"-1	0"), Fine Sandy	11" Depth		

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

Depth to Water Table

C.

NA

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

Abundant Pre	sent
--------------	------

🛛 Absent

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

Abundant X Present

Shrub thickets or streambeds with abundant earthworms (American woodcock)

Present

🛛 Absent

Absent

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

🛛 Absent



Wildlife Habitat Protection Guidance

Number of trees	s (live or dead) >	30" DBH:	0		
Number (or den	sity) of Standing	Dead Trees (pote	ntial for cavities	and perches):	
1	0		0	0	
6-12" dbh	12-18"	dbh	0 18-24" dbh	> 24	4" dbh
Number of Tree	Cavities in trunk	s or limbs of:			
0					
6-12" diameter (e.g. 0	, tree swallow, saw w	vhet owl, screech owl, I	oluebird, other song	birds)	
	g., hooded merganse	r, wood duck, common	goldeneye, mink)		
0					
		ood duck, common golde	neye, common merg	anser, barred owl, mi	nk, raccoon, fisher)
Small mammal I	burrows				
Abundant		Present	🛛 Absent		
_	_				
Cover/Perches/I	Basking/Denning	/Nesting Habitat			
Dense herb	aceous cover (vo	oles, small mamma	als, amphibians	& reptiles)	
Large wood	v debris on the a	round (small mam	mals, mink, am	ohibians & reptil	es)
	, 0	, , ,	, ,	-	,
	iooo logo troo r	acta ar hummaaka	under weter's a	urface (turtles a	nakaa fraga)
		oots or hummocks		, · ·	
Rocks, crev	ices, fallen logs,	overhanging bran	ches or hummoo	cks at, or within	1m above the
Rocks, crev water's surfa	ices, fallen logs, ace (turtles, snak		ches or hummoo birds, wood duc	cks at, or within	1m above the
 Rocks, crev water's surfa Rock piles, or 	ices, fallen logs, ace (turtles, snak crevices, or hollo	overhanging brank kes, frogs, wading w logs suitable for 	ches or hummod birds, wood duc :	cks at, or within k, mink, raccoor	1m above the ר)
 Rocks, crev water's surfa Rock piles, or otter 	rices, fallen logs, ace (turtles, snak crevices, or hollo	overhanging brank kes, frogs, wading w logs suitable for porcupine	ches or hummoo birds, wood duc :: D bear	cks at, or within k, mink, raccoor	1m above the ר) uturkey vu
 Rocks, crev water's surfa Rock piles, or otter Live or dead 	rices, fallen logs, ace (turtles, snak crevices, or hollo mink d standing vegeta	overhanging brank kes, frogs, wading w logs suitable for porcupine ation overhanging	ches or hummoo birds, wood duc :: D bear water or offering	cks at, or within k, mink, raccoor	1m above the ר) uturkey vu
 Rocks, crev water's surfa Rock piles, or otter Live or deac osprey, king 	rices, fallen logs, ace (turtles, snak crevices, or hollo mink d standing vegeta gfisher, flycatcher	overhanging brank kes, frogs, wading w logs suitable for porcupine ation overhanging rs, cedar waxwings	ches or hummoo birds, wood duo :: D bear water or offering s)	cks at, or within k, mink, raccoor	1m above the ר) turkey vu
 Rocks, crev water's surfa Rock piles, or otter Live or deac osprey, king 	tices, fallen logs, ace (turtles, snak crevices, or hollo mink d standing vegeta gfisher, flycatcher at may serve as s	overhanging brank kes, frogs, wading w logs suitable for porcupine ation overhanging rs, cedar waxwings seasonal (vernal/at	ches or hummod birds, wood duc :: bear water or offering s) utumnal) pools	cks at, or within k, mink, raccoor	1m above the ר) uturkey vu
 Rocks, crev water's surfa Rock piles, or otter Live or deac osprey, king 	tices, fallen logs, ace (turtles, snak crevices, or hollo mink d standing vegeta gfisher, flycatcher at may serve as s	overhanging brank kes, frogs, wading w logs suitable for porcupine ation overhanging rs, cedar waxwings	ches or hummoo birds, wood duo :: D bear water or offering s)	cks at, or within k, mink, raccoor	1m above the ר) uturkey vu
 Rocks, crev water's surfa Rock piles, a otter Live or deac osprey, king Depressions that 	rices, fallen logs, ace (turtles, snak crevices, or hollo mink d standing vegeta gfisher, flycatcher at may serve as s	overhanging brank kes, frogs, wading w logs suitable for porcupine ation overhanging rs, cedar waxwings seasonal (vernal/at	ches or hummod birds, wood duc : bear water or offering s) utumnal) pools ⊠ Absent	cks at, or within k, mink, raccoor bobcat g good visibility o	1m above the ר) uturkey vu
 Rocks, crev water's surfa Rock piles, or otter Live or deac osprey, king Depressions that Standing water pression 	rices, fallen logs, ace (turtles, snak crevices, or hollo mink d standing vegeta gfisher, flycatcher at may serve as s	overhanging brank kes, frogs, wading w logs suitable for porcupine ation overhanging rs, cedar waxwings seasonal (vernal/an Present part of the growing	ches or hummod birds, wood dud :: bear water or offering s) utumnal) pools ⊠ Absent season, suitabl	cks at, or within k, mink, raccoor ⊠ bobcat g good visibility o e for use by	1m above the n)
 Rocks, crev water's surfa Rock piles, a otter Live or deac osprey, king Depressions that 	rices, fallen logs, ace (turtles, snak crevices, or hollo mink d standing vegeta gfisher, flycatcher at may serve as s	overhanging brank kes, frogs, wading w logs suitable for porcupine ation overhanging rs, cedar waxwings seasonal (vernal/at Present part of the growing N	ches or hummod birds, wood dud :: bear water or offering s) utumnal) pools ⊠ Absent season, suitabl	cks at, or within k, mink, raccoor bobcat g good visibility of e for use by phibians (foragin	1m above the n)

Present Absent



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands Program _

ppendix B: Detailed	l Wildlife Habitat Ev	ection Guidance
art 2. Field Data	Form (continued)	
Important habitat chara	acteristics (if present, des	cribe and quantify them on a separate sheet)
Medium to large (> 6"), for spring & two-lined s		n (cover for stream salamanders and nesting habitat
	Present	🖂 Absent
	banks or within exposed ng habitat for dusky salar	portions of streambeds (cover for stream nanders)
	Present	⊠ Absent
Underwater banks of fi	ne silt and/or clay (beave	r, muskrat, otter)
	Present	Absent
Undercut or overhangir	ng banks (small mammals	s, mink, weasels)
	Present	⊠ Absent
Vertical sandy banks (b	oank 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 suitat	ble for turtle nesting
	Present	⊠ Absent
Wildlife dens/nests (if p	present, describe & quant	ify 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

Otter

Mink

Den(s) present of

Beaver



Wildlife Habitat Protection Guidance

Ap	ppendix B: Detailed Wildlife Habitat Evalu	ation	
Pa	art 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 flo green heron, black-crowned night heron, king rail, V		n (wood duck,
	Flooded > 5 cm	Present	🛛 Absent
	Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, red		
	Flooded > 5 cm	Present	🛛 Absent
	Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
	Cattail emergent wetland vegetation at least seasor	nally 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 season (common snipe, spotted sandpiper, sedge v		during the growing
	Flooded > 5 cm	Present	🛛 Absent
	Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
IV.	Landscape Context		
Α.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its
	Is the impact area part of an emergent marsh at least	1.0 acre in size? Ves	🛛 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

41	opend	lix B:	Detailed	Wildlife	Habitat	Evaluation
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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., purple loosestrife, *Phragmites*, glossy buckthorn)
- 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev.

Acushnet to Fall River Reliability Project	
Project Name	
Fall River, MA. Bordering Vegetated Wetland D11, Vernal Pool DP4.	
Location	
Please refer to breakdown of permanent, secondary, and temporary	11/23/2021
impacts below.	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. D11: Secondary (tree clearing converted to shrub or emergent vegetation)		20,564 sf (0.47 acres)		0.47 acres
2. D11: Temporary (work pads and access)		4,676 sf (0.11 acres)		0.11 acres
3.				
4.				
5.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.

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.

mby Late

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

M. Lamothe



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Fall River, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D11, Vernal Pool DP-4	
Impact Area (number/name)	
11/16/2017	
Date(s) of Site Visit(s) and Data Collection	
Cloudy, Light Rain, 47 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/23/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy Sate

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:	-	
Class:	Forested	Subclass:	Needle-Leaved Evergreen/Broad- Leaved Deciduous	
Hydrology/Wa	ter Regime			
Permaner	tly 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)
 - "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.

Community Name	 	
Vegetation Description		
Physical Description		



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

В.	Inventory (Plant	community)					
	% Cover:	80	65 Shrubs (< 20')	0	20	40	
	-	Trees (> 20')	· · ·	•	Mosses	Herbaceous	
	a dominant plan			n the vegetative of	over in each	n strata; "*" designates	
	Strata	Plan	t Species	Strata		Plant Species	
	Tree	Pinu	s strobus (50%)*	Shrub		Viburnum dentatum (5%)	
	Tree	Acer	rubrum (30%)*	Shrub		Prunus sp. (<5%)	
	Tree	Que	rcus alba (5%)	Shrub		Chamaecyparis thyoides (<5%)	
	Shrub	Cleth (45%	hra alnifolia 6)*	Herb		Osmundastrum cinnamomeum (30%)*	
	Shrub		cinium mbosum (20%)*	Herb	,	Osmunda regalis (10%)*	
	Shrub		ax rotundifolia	Herb		Rubus hispidus (<5%)	
C.	Inventory (Soils)						
	Whitman FSaL, 0-3% slopes, extremely stony			Very Poorly Drained Drainage Class			
	Soil Survey Unit Organic (0"-3"), Mucky Silt Loam (3"-9")			9"			
	Texture (upper part)			Depth			
	NA Depth to Water Tab						
				,			
III.	Important Habi	tat Features (C	complete for all re	esource 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 Uplan	d/Wetland Foo	d Plants (hard ma	st and fruit/berry p	roducers)		
	Abundant	\boxtimes	Present	Absent			
	Shrub thickets c	or streambeds w	vith abundant eart	hworms (Americar	n woodcock	.)	
		\boxtimes	Present	Absent			

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

Absent



Wildlife Habitat Protection Guidance

mber (or density) of Standing Dead Trees (pote 0 2" dbh <u>12-18" dbh</u> mber of Tree Cavities in trunks or limbs of: 2" diameter (e.g., tree swallow, saw whet owl, screech owl, 18" diameter (e.g., hooded merganser, wood duck, commo " diameter (e.g., hooded merganser, wood duck, common gold hall mammal burrows Abundant Present ver/Perches/Basking/Denning/Nesting Habitat Dense herbaceous cover (voles, small mamm Large woody debris on the ground (small mar	0 18-24" dbh bluebird, other songbir n goldeneye, mink) eneye, common mergan: M Absent hals, amphibians &	ds)	lbh
2" dbh 12-18" dbh mber of Tree Cavities in trunks or limbs of: 2" diameter (e.g., tree swallow, saw whet owl, screech owl, 18" diameter (e.g., tree swallow, saw whet owl, screech owl, 18" diameter (e.g., hooded merganser, wood duck, commo " diameter (e.g., hooded merganser, wood duck, common gold nall mammal burrows Abundant Present ver/Perches/Basking/Denning/Nesting Habitat Dense herbaceous cover (voles, small mamm Large woody debris on the ground (small mar	bluebird, other songbir n goldeneye, mink) eneye, common mergan:	ser, barred owl, mink, r	lbh
mber of Tree Cavities in trunks or limbs of: 2" diameter (e.g., tree swallow, saw whet owl, screech owl, 18" diameter (e.g., hooded merganser, wood duck, commo " diameter (e.g., hooded merganser, wood duck, commo " diameter (e.g., hooded merganser, wood duck, commo all mammal burrows Abundant	bluebird, other songbir n goldeneye, mink) eneye, common mergan:	ser, barred owl, mink, r	raccoon, fisher
2" diameter (e.g., tree swallow, saw whet owl, screech owl, 18" diameter (e.g., hooded merganser, wood duck, commo " diameter (e.g., hooded merganser, wood duck, common gold hall mammal burrows Abundant Present ver/Perches/Basking/Denning/Nesting Habitat Dense herbaceous cover (voles, small mamm Large woody debris on the ground (small mar	n goldeneye, mink) eneye, common mergan: I Absent als, amphibians &	ser, barred owl, mink, r	raccoon, fisher
18" diameter (e.g., hooded merganser, wood duck, commo " diameter (e.g., hooded merganser, wood duck, common gold nall mammal burrows Abundant	n goldeneye, mink) eneye, common mergan: I Absent als, amphibians &	ser, barred owl, mink, r	raccoon, fisher
18" diameter (e.g., hooded merganser, wood duck, commo " diameter (e.g., hooded merganser, wood duck, common gold nall mammal burrows Abundant	n goldeneye, mink) eneye, common mergan: I Absent als, amphibians &	ser, barred owl, mink, r	raccoon, fisher
" diameter (e.g., hooded merganser, wood duck, common gold nall mammal burrows Abundant	eneye, common mergan Absent		raccoon, fisher
Abundant Present ver/Perches/Basking/Denning/Nesting Habitat Dense herbaceous cover (voles, small mamm Large woody debris on the ground (small mar	Absent Absent		raccoon, fisher
Abundant Present ver/Perches/Basking/Denning/Nesting Habitat Dense herbaceous cover (voles, small mamm Large woody debris on the ground (small mar	Absent Absent		1200001, 1151161
Abundant Present ver/Perches/Basking/Denning/Nesting Habitat Dense herbaceous cover (voles, small mamm Large woody debris on the ground (small mar	als, amphibians &	reptiles)	
ver/Perches/Basking/Denning/Nesting Habitat Dense herbaceous cover (voles, small mamm Large woody debris on the ground (small mar	als, amphibians &	reptiles)	
Dense herbaceous cover (voles, small mamm Large woody debris on the ground (small mar	·	reptiles)	
Large woody debris on the ground (small mar	·	reptiles)	
	nmals mink amph		
De la construction de la constru		iibians & reptiles))
Rocks, crevices, logs, tree roots or hummocks	s under water's sur	face (turtles, snal	kes, frogs)
Rocks, crevices, fallen logs, overhanging brar water's surface (turtles, snakes, frogs, wading			above the
Rock piles, crevices, or hollow logs suitable for	pr:		
otter mink porcupine	🗌 bear	bobcat	🗌 turkey v
Live or dead standing vegetation overhanging osprey, kingfisher, flycatchers, cedar waxwing		good visibility of o	open water
pressions that may serve as seasonal (vernal/a	autumnal) pools		
🛛 Present	Absent		
anding water present at least part of the growing	g season, suitable	for use by	
Breeding amphibians	Ion-breeding amp	nibians (foraging,	re-hydratio
Turtles	oraging waterfowl		

Present Absent



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation

Pa	art 2. Field Data For	m (continued)			
	Important habitat character	<u>istics (if present, describ</u>	e and	d quantify the	<u>em on a separate sheet)</u>
	Medium to large (> 6"), flat for spring & two-lined salam		over f	for stream s	alamanders and nesting habitat
		⊠ Present		Absent	
	Flat rocks and logs on bank salamanders and nesting h				ds (cover for stream
		Present	\boxtimes	Absent	
	Underwater banks of fine si	lt and/or clay (beaver, m	nuskra	at, otter)	
		Present	\boxtimes	Absent	
	Undercut or overhanging ba	anks (small mammals, m	nink, v	weasels)	
		Present	\boxtimes	Absent	
	Vertical sandy banks (bank	swallow, kingfisher)			
		Present	\square	Absent	
	Areas of ice-free open wate	er in winter			
		⊠ Present		Absent	
	Mud flats				
		Present	\square	Absent	
	Exposed areas of well-drain	ned, sandy soil suitable f	or tur	tle nesting	
		Present	\square	Absent	
	<u>Wildlife dens/nests (if prese</u>	ent, describe & quantify t	hem	on the back	of this sheet)
	Turtle nesting sites				
		Present	\square	Absent	
	Bank swallow colony				
		Present	\boxtimes	Absent	
	Nest(s) present of	Bald Eagle		Osprey	Great Blue Heron
	Den(s) present of	Otter		Mink	Beaver



Wildlife Habitat Protection Guidance

	rt 2. Field Data Form (continued)	ation						
	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 flo green heron, black-crowned night heron, king rail, V	oded during the growing seasor	n (wood duck,					
	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 sedg season (common snipe, spotted sandpiper, sedge v		during the growing					
	Flooded > 5 cm	Present	🛛 Absent					
	Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent					
V.	Landscape Context							
A.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its					
	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?	🖂 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

۵n	nendix	R٠	Detailed	Wildlife	Habitat	Evaluation
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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	f 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev.

Acushnet to Fall River Reliability Project Project Name	
Fall River, MA. Bordering Vegetated Wetland D11A Location	
Please refer to breakdown of impacts below.	11/23/2021
Size of Area Being Impacted	Date

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

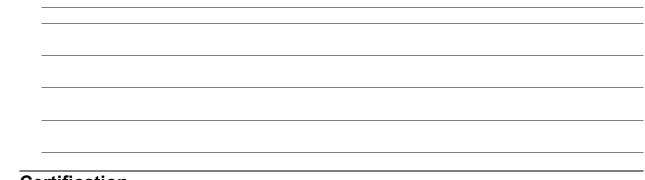
Name	Waterbody/ Waterway	Wetland	Upland*	Total Area
1. Secondary (tree clearing converted to shrub or emergent vegetation)		1,257 sf (0.03 acres)		0. acres
2.)				
3.				
4.				
5.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.



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.

mhy Lake

M. Lamothe Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Fall River, MA

Project Location (from NOI page 1)

Bordering Vegetated Wetland D11A.

Impact Area (number/name)

06/24/2021 Date(s) of Site Visit(s) and Data Collection

Sunny, 73 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/23/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mha Satre

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:	tem: Palustrine Subsystem:			
Class:	Forested	Subclass:	Broad-Leaved Deciduous	
Hydrology/W	/ater Regime			
Permane	ently flooded	Saturated		
	ently exposed	Temporarily	flooded	
🗌 Semi-pe	rmanently flooded		y flooded	
🛛 Seasona	ally flooded	Artificially flo	ooded	
	nt or Bordering Land Subject to Floodin rrestrial classification system such as o	•		
a. "Classific	ation of the Natural Communities of Massac MA DFW NHESP, Westborough, MA. July	chusetts (Draft)" by l	Patricia C. Swain and Jennifer B.	

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.

ommunity Name	
egetation Description	
nysical Description	

2.



Wildlife Habitat Protection Guidance

Δı	nendix	R٠	Detailed	Wildlife	Habitat	Evaluation
A	pennix	D.	Detalleu	whame	Πανιιαι	

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	75 Trees (> 20') 20 Shrubs (< 20')	0 Woody vines	5 Mosses	10 Herbaceous	
	Plant Lists (spec a dominant plant	ies that co	mprise 10% or more o	,		n strata; "*" designates	
	Tree /		Plant Species	Strata		Plant Species	
			Acer rubrum (70%)*	Herb		Osmundastrum cinnamomeum (5%)*	
			Clethra alnifolia 20%)*				
	Shrub		Carpinus caroliniana 5%)				
	Shrub	ŀ	Hamamelis virginiana 5%)				
C.	Inventory (Soils)						
	Whitman FSaL, O	Whitman FSaL, 0-3% slopes, extremely stony			Drained		
	Oi (0"-5"), Oa(5"-19")			Drainage Class 19"			
	Texture (upper part)			Depth			
	3" Depth to Water Table	9					
Ш.			s (complete for all re	source areas)			
III. Important Habitat Features (complete for all resource areas) If the following habitat characteristics are present, describe & quantify them on a separate sheet & attack						ate sheet & attach.	
	Wildlife Food						
	Important Wetlar	nd/Aquatic	Food Plants (smartwe	eds, pondweeds	, wild rice, b	ulrush, wild celery)	
	Abundant		Present	🛛 Absent			
	Important Upland	d/Wetland	Food Plants (hard mas	st and fruit/berry producers)			
	Abundant		Present	🛛 Absent			
	Shrub thickets or	ds with abundant earth	nworms (America	an woodcock	x)		
			Present	🛛 Absent			
	Shrub and/or her	rbaceous v	egetation suitable for	veery nesting			
			⊠ Present	Absent			



Wildlife Habitat Protection Guidance

rt 2. Field D	Data Form (continued)			
Number of trees	(live or dead) >	30" DBH:	0		
Number (or den	sity) of Standing	Dead Trees (pote	ntial for cavities	and perches):	
1	., .	, i		0	
6-12" dbh	<u> </u>	lbh	0 18-24" dbh	> 2	4" dbh
Number of Tree	Cavities in trunk	s or limbs of:			
0					
•	, tree swallow, saw w	het owl, screech owl, I	oluebird, other song	jbirds)	
0 12-18" diameter (e.g	g., hooded merganse	r, wood duck, common	goldeneye, mink)		
0					
		od duck, common golde	neye, common merç	ganser, barred owl, mi	ink, raccoon, fisher)
Small mammal I	ourrows				
Abundant	\boxtimes	Present	Absent		
Cover/Perches/	Basking/Denning	Nesting Habitat			
Cover/Ferches/I	Dasking/Denning	inesting habitat			
Dense herba	aceous cover (vo	les, small mamma	als, amphibians	& reptiles)	
Large wood	y debris on the g	round (small mam	mals, mink, am	phibians & reptil	les)
Rocks, crev	ices, logs, tree ro	ots or hummocks	under water's	surface (turtles, s	snakes, frogs)
		overhanging bran es, frogs, wading			
Rock piles,	crevices, or hollo	w logs suitable for			
otter	🗌 mink	porcupine	🗌 bear	bobcat	🗌 turkey vu
		tion overhanging s, cedar waxwings		g good visibility o	of open water (
Depressions that	it may serve as s	easonal (vernal/a	utumnal) pools		
	\boxtimes	Present	Absent		
Standing water		art of the growing		le for use by	
					na na hudratia
Breeding an	nphipians	X N	on-preeding an	nphibians (foragi	ng, re-nyaratio
Turtles		E Fe	oraging waterfo	wl	
		noss-covered logs ng (four-toed salar		ogs, overhanging	or directly adj
		_			

Present Absent



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Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands Program

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pendix B: Detailed rt 2. Field Data	Wildlife Habitat Eva Form (continued)	aluation	
Important habitat chara	<u>icteristics (if present, des</u>	cribe and quantify the	em on a separate sheet)
Medium to large (> 6"), for spring & two-lined s		ı (cover for stream sa	alamanders and nesting habitat
	Present	🛛 Absent	
	banks or within exposed ng habitat for dusky salar		ds (cover for stream
	Present	🛛 Absent	
Underwater banks of fi	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangi	ng banks (small mammals	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (t	oank 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 suitat	le for turtle nesting	
	Present	🛛 Absent	
Wildlife dens/nests (if p	resent, describe & quant	fy 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

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Den(s) present of

Otter

Mink

Beaver



Wildlife Habitat Protection Guidance

Ap	Appendix B: Detailed Wildlife Habitat Evaluation						
Pa	art 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 flo green heron, black-crowned night heron, king rail, V		(wood duck,				
	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 wrer						
	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 grow 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

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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	f 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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.



Fall River, MA. Bordering Vegetated Wetland D12 and Bordering Land Subject to Flooding associated with the Copicut Reservoir

Please refer to breakdown of impacts below.	11/23/2021	
Size of Area Being Impacted	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. Secondary (tree clearing converted to shrub or emergent vegetation)		1,123 sf (0.03 acres)		0.03 acres
2.Temporary (work pads and access)		982 sf (0.02 acres)		0.02 acres
3.		<u> </u>		
4.				
5.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.

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))

M. Lamothe Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Fall River, MA					
Project Location (from NOI page 1) Bordering Vegetated Wetland D12 and Bordering Land Subject to Flooding	associated with the				
Copicut Reservoir					
11/16/2017					
Date(s) of Site Visit(s) and Data Collection					
Cloudy, Windy, 47 degrees for temperature					
Weather Conditions During Site Visit (if snow cover, include depth)					
M. Lamothe	11/23/2021				
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed				

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

mha Satre

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:	-
Class:	Forested	Subclass:	Needle-Leaved Evergreen
Hydrology/Wa	ter Regime		
Permaner	tly flooded	Saturated	
Intermitter	ntly exposed	Temporarily	flooded
Semi-perr	nanently flooded		/ flooded
Seasonall	y flooded	Artificially flo	oded

- 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)
 - "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.

Community Name		
Vegetation Description		

Physical Description



Wildlife Habitat Protection Guidance

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Part 2. Field Data Form (continued)

B. Inventory (Plant community)

inventory (i lan	(commanity)				
% Cover:	95	10	10	0	0
-	Trees (> 20')	Shrubs (< 20')	Woody vines	Mosses	Herbaceous
	cies that comprise the species for the		of the vegetative co	over in each	n strata; "*" designates
Strata	Plant	Species	Strata		Plant Species
Tree	Pinus	strobus (55%)*			
Tree		naecuparis			
_		les (45%)*	-		
Tree	Fagu: (<5%	s grandifolia)			
Shrub	Vacci	nium ıbosum (10%)*			
Woody Vine		x rotundifolia	-		
Soil Survey Unit Organic (0"-3"), (6"-12")	s))-8% slopes, very Sandy Loam (3'	•	Well Drained Drainage Class 12" Depth		
NA			-		
•	itat Features (co	-	esource areas) cribe & quantify then	n on a separa	ate sheet & attach.
Wildlife Food					
	and/Aquatic Food	l Plants (smartwo	eeds, pondweeds,	wild rice, b	ulrush, wild celery)
Abundant		Present	Absent		
Important Upla	nd/Wetland Food	Plants (hard ma	st and fruit/berry p	roducers)	

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

C.

III.



Wildlife Habitat Protection Guidance

rt 2. Field	Data Form (c	ontinued)			
Number of tree	s (live or dead) > 3	80" DBH:	1		
Number (or der	nsity) of Standing [Dead Trees (pote	ntial for cavities	and perches):	
0	0			0	
6-12" dbh	12-18" d	bh	0 18-24" dbh	> 2	4" dbh
Number of Tree	e Cavities in trunks	or limbs of:			
0					
6-12" diameter (e.g	., tree swallow, saw wh	net owl, screech owl,	bluebird, other sono	gbirds)	
0 12-18" diameter (e.	g., hooded merganser	wood duck, commor	n goldeneye, mink)		
0	hooded merganser, woo				· · · · · · · · · · · · · · · · · · ·
		d duck, common golde	eneye, common merç	ganser, barred owl, mi	nk, raccoon, fisher)
Small mammal	burrows				
Abundant	🗌 F	Present	🛛 Absent		
Cover/Perches/	/Basking/Denning/	Nesting Habitat			
	Busking/Derining/	Nooting Habitat			
Dense herb	aceous cover (vol	es, small mamm	als, amphibians	& reptiles)	
Large wood	ly debris on the gr	ound (small man	nmals, mink, am	phibians & reptil	es)
Rocks, crev	vices, logs, tree ro	ots or hummocks	under water's	surface (turtles, s	snakes, frogs)
	vices, fallen logs, o face (turtles, snake				
Rock piles,	crevices, or hollow	v logs suitable fo	r:		
otter	🗌 mink	porcupine	🗌 bear	bobcat	🗌 turkey vu
	d standing vegeta gfisher, flycatchers			g good visibility o	of open water (
Depressions the	at may serve as se	easonal (vernal/a	utumnal) pools		
	E F	Present	🛛 Absent		
Standing water	present at least p	art of the growing	ı season, suitab	le for use by	
Breeding a	mphibians	N	lon-breeding an	nphibians (foragi	ng, re-hydratio
Turtles		🗌 F	oraging waterfo	wl	
	nmucks or mats, m ding water in sprir			ogs, overhanging	or directly adj
	,	<u> </u>	, ,		

Present Absent



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field [Data Form (cont	nued)		
Important habita	at characteristics (if pro	esent, describe an	d quantify the	em on a separate sheet)
	e (> 6"), flat rocks withi -lined salamanders)	n a stream (cover	for stream sa	alamanders and nesting habitat
	Prese	ent 🛛	Absent	
	ogs on banks or within nd nesting habitat for d			ds (cover for stream
	Prese	ent 🛛	Absent	
Underwater bar	nks of fine silt and/or c	ay (beaver, muskr	at, otter)	
	Prese	ent 🖂	Absent	
Undercut or ove	erhanging banks (smal	I mammals, mink,	weasels)	
	Prese	ent 🛛	Absent	
Vertical sandy b	oanks (bank swallow, k	kingfisher)		
	Prese	ent 🖂	Absent	
Areas of ice-free	e open water in winter			
	Prese	ent 🛛	Absent	
Mud flats				
	Prese	ent 🖂	Absent	
Exposed areas	of well-drained, sandy	soil suitable for tu	rtle nesting	
	Prese	ent 🛛	Absent	
Wildlife dens/ne	ests (if present, describ	e & quantify them	on the back	<u>of this sheet)</u>
Turtle nesting s	ites			
	Prese	ent 🖂	Absent	
Bank swallow c	olony			
	Prese	ent 🖂	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 Eval Part 2. Field Data Form (continued)	luation	
Project area is within:		
100' of beaver, mink or otter den, bank swallo	w 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 & quantit	fy them on a separate sheet)	
Emergent wetland vegetation at least seasonally f green heron, black-crowned night heron, king rail,		ר (wood duck,
Flooded > 5 cm	Present	Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least so (mallard, American bittern, sora, common snipe, r		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent
Cattail emergent wetland vegetation at least seas	onally flooded during the growing	season
Flooded > 5 cm (marsh wren)	Present	Absent
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent
Fine-leafed emergent vegetation (grasses and sec season (common snipe, spotted sandpiper, sedge		during the growing
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Absent
V. Landscape Context		
A. Habitat Continuity (if present, describe the lands importance for area-sensitive species)	cape context on a separate shee	and its
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

٩c	pendix	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	f 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 1. Summary Sheet

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

Acushnet to Fall River Reliability Project	
Project Name	
Fall River, MA. Bordering Vegetated Wetlands D14 and D15	and Vernal Pool DP-7
Location	
Please refer to breakdown of impacts below.	11/23/2021
Size of Area Being Impacted	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. Secondary (tree clearing converted to shrub or emergent vegetation) in D15		1,711 sf (0.04 acres)		0.04 acres
2. Temporary (work pads and access) in D15		939 sf (0.02 acres)		0.02 acres
3. Temporary (work pads and access) in D14		166 sf (0.004 _acre <u>s)</u>		0.004 acres
4.				
5.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.

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.

mhy Late

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

M. Lamothe Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Fall River, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetlands D14 and D15 and Vernal Pool DP-7	
Impact Area (number/name)	
11/16/2017	
Date(s) of Site Visit(s) and Data Collection	
Cloudy, Windy, 47 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/23/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy Lake

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:	-
Class:	Forested	Subclass:	Broad-Leaved Deciduous
Hydrology/Wa	ter Regime		
Permaner	tly flooded	Saturated	
Intermitter	ntly exposed	Temporarily	flooded
Semi-pern	nanently flooded		/ flooded
🛛 Seasonall	y flooded	Artificially flo	oded

- 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)
 - "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.

Community Name		
Vegetation Description		



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover:	90 Trees (> 20')	35 Shrubs (< 20')	5 Woody vines	15 Mosses	30 Herbaceous
Plant Lists (spe a dominant plar			f the vegetative co	over in each	n strata; "*" designates
Strata	Plar	it Species	Strata		Plant Species
Tree	Ace	r rubrum (60%)*	Shrub		Clethra alnifolia (5%)
Tree	Que	rcus alba (15%)	Shrub		Fagus grandifolia (<5%)
Tree	Nys	sa sylvatica (5%)	Herb		Rubus hispidus (25%)*
Tree	Pinu	is strobus (5%)	Herb		Grass sp. (5%)
Shrub	cory	cinium mbosum (20%)*	Woody Vines		Smilax rotundifolia (5%)*
Shrub	Pinu	is strobus (10%)*			

C. Inventory (Soils)

Ridgebury FSaL, 0-3% slopes, extremely stony Soil Survey Unit	Poorly Drained Drainage Class
Organic (0"-2"), Silt Loam (2"-14")	14"
Texture (upper part)	Depth
NA	
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]
----------	---

🛛 Absent

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

Present

🗌 Abundant 🛛 🖾 Present

Shrub thickets or streambeds with abundant earthworms (American woodcock)

Present

🛛 Absent

Absent

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

🛛 Absent



Wildlife Habitat Protection Guidance

rt 2. Field D	ata Form (continued)			
Number of trees	(live or dead) >	30" DBH:	0		
Number (or dens	itv) of Standing	Dead Trees (pote	ntial for cavities	and perches):	
0	0			0	
6-12" dbh	12-18" (dbh	0 18-24" dbh		4" dbh
Number of Tree	Cavities in trunk	s or limbs of:			
0					
6-12" diameter (e.g.,	tree swallow, saw w	/het owl, screech owl, I	oluebird, other song	gbirds)	
<u>0</u> 12-18" diameter (e.g.	, hooded merganse	r, wood duck, common	goldeneye, mink)		
0		od duck, common golde			ink manager fisher)
		ioa auck, common goiae	neye, common mer	ganser, barred owi, m	ink, raccoon, lisher)
Small mammal b	urrows				
Abundant		Present	🛛 Absent		
Cover/Perches/E	asking/Denning	/Nesting Habitat			
Dense herba	iceous cover (vo	oles, small mamma	ıls, amphibians	& reptiles)	
Large woody	debris on the g	round (small mam	mals, mink, arr	iphibians & repti	les)
🛛 Rocks, crevi	ces, logs, tree ro	oots or hummocks	under water's	surface (turtles, s	snakes, frogs)
		overhanging bran tes, frogs, wading			
Rock piles, c	revices, or hollo	w logs suitable for	:		
otter	ink 🗌	porcupine	🗌 bear	bobcat	🗌 turkey vu
Live or dead	standing vegeta	ation overhanging	water or offerin	g good visibility	of open water (e
		s, cedar waxwings	,		
Depressions that		easonal (vernal/a			
	\boxtimes	Present	Absent		
Standing water p	present at least p	part of the growing	season, suitab	le for use by	
Breeding am	phibians	🖂 N	on-breeding an	nphibians (foragi	ng, re-hydratior
Turtles		🗌 F	oraging waterfo	wl	
		noss-covered logs ng (four-toed salar		ogs, overhanging	or directly adja
•	- '		,		



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands Program

 Wildlife Habitat Protection Guidance

 Appendix B: Detailed Wildlife Habitat Evaluation

 Part 2. Field Data Form (continued)

important nabitat character	istics (il present, describ	e and quantity tr	iem on a separate sneet)
Medium to large (> 6"), flat for spring & two-lined salan		over for stream s	alamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on bank salamanders and nesting h			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fine s	ilt and/or clay (beaver, m	uskrat, otter)	
	Present	🛛 Absent	
Undercut or overhanging ba	anks (small mammals, m	ink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (bank	swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open wate	er in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-drain	ned, sandy soil suitable f	or turtle nesting	
	Present	🛛 Absent	
Wildlife dens/nests (if prese	ent, describe & quantify t	hem on the back	<u>c of this sheet)</u>
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



		0	
Wildlife	Habitat	Protection	Guidance
Appendix B. De	tailad Wildlifa H	labitat Evaluation	

art 2. Field Data Form (continued)		
Project area is within:		
100' of beaver, mink or otter den, bank swallov	v colony or turtle nesting area	
200' of Great Blue Heron or osprey nest(s)		
\square 1400' of a Bald Eagle nest ¹		
Emergent Wetlands (if present, describe & quantify	them on a separate sheet)	
Emergent wetland vegetation at least seasonally flo green heron, black-crowned night heron, king rail, v	poded during the growing seasc	on (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least se (mallard, American bittern, sora, common snipe, re		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
Cattail emergent wetland vegetation at least seaso	nally flooded during the growing	y season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
Fine-leafed emergent vegetation (grasses and sed season (common snipe, spotted sandpiper, sedge		during the growing
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
Landscape Context		
Habitat Continuity (if present, describe the landso importance for area-sensitive species)	ape context on a separate shee	et and its
Is the impact area part of an emergent marsh at least	1.0 acre in size?	🛛 No
(marsh and waterbirds)	2.0 acres in size? 🗌 Yes	🛛 No
	5.0 acres in size? 🗌 Yes	🛛 No
	10.0 acres in size?	🖂 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

		D .	Defeiled	\A/:1-11:£-	11-1-14-4	E I	
۹p	penaix	в:	Detailed	wiidlite	Haditat	Evaluat	ION

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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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.



Fall River, MA. Bordering Vegetated Wetland D16A and Bordering Land Subject to Flooding associated with the Copicut Reservoir

Please refer to breakdown of impacts below.	11/23/2021
Size of Area Being Impacted	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. Secondary (tree clearing converted to shrub or emergent vegetation)		1,133 sf (0.03 acres)		0.03 acres
2. Temporary (work pads in access)		981 sf (0.02 acres)		0.02 acres
3.				
4.				
5.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.

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.

mhy date

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

M. Lamothe Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Fall River, MA					
Project Location (from NOI page 1)					
Bordering Vegetated Wetland D16A and Bordering Land Subject to Flooding associated with the					
Copicut Reservoir					
11/15/2017					
Date(s) of Site Visit(s) and Data Collection					
Sunny, 44 degrees for temperature					
Weather Conditions During Site Visit (if snow cover, include depth)					
M. Lamothe	11/23/2021				
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed				

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

mhy Sate

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:	-		
Class:	Forested	Subclass:	Broad-Leaved Deciduous		
Hydrology/Water Regime					
Permaner	ntly flooded	Saturated			
Intermitter	ntly exposed	Temporarily flooded			
Semi-perr	nanently flooded		/ flooded		
🛛 Seasonall	y flooded	Artificially flo	oded		

- 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)
 - "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.

Community Name	 	
Vegetation Description	 	
Physical Description		



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover: Plant Lists (spec a dominant plar		omprise		0 Woody vines he vegetative cove	20 Mosses er in each	<u>30</u> Herbaceous strata; "*" designates
Strata		Plant Sp	pecies	Strata		Plant Species
Tree		Acer rul	orum (65%)*	Shrub		Kalmia angustifolia
Tree		Pinus st	trobus (10%)	Herb		<u>(5%)</u> Carex sp. (20%)*
Tree		Betula p (5%)	papyrifera	Herb		Juncus effusus (10%)*
Tree		· · /	gida (5%)			(10 %)
Shrub		Vacciniu	um osum (40%)*			
Shrub			alnifolia (10%)			
Inventory (Soils)					

C.

Udorthents, smoothed	None Listed
Soil Survey Unit	Drainage Class
Organic (0"-2"), Sandy Loam (2"-11"), Loamy	17"
Sand with Gravels (11"-17")	Depth
NA	
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 streambe	eds with abundant earthv	vorms (American woodcock)		
	Present	⊠ Absent		
Shrub and/or herbaceous vegetation suitable for veery nesting				
	Present	🛛 Absent		



Wildlife Habitat Protection Guidance

rt 2. Field D	ata Form (d	continued)			
Number of trees	(live or dead) > 3	30" DBH:	0		
Number (or dens	sity) of Standing	Dead Trees (pot	ential for cavities	and perches):	
3	0		0	. ,	
6-12" dbh	12-18" d	bh	18-24" dbh	> 2	24" dbh
Number of Tree	Cavities in trunks	s or limbs of:			
0					
6-12" diameter (e.g.,	tree swallow, saw w	het owl, screech owl	, bluebird, other song	gbirds)	
U 12-18" diameter (e.g.	, hooded merganser	, wood duck, commo	on goldeneve, mink)		
0	-				
>18" diameter (e.g., ho	ooded merganser, wo	od duck, common gold	leneye, common merç	ganser, barred owl, m	ink, raccoon, fisher)
Small mammal b	urrows				
Abundant	□ F	Present	🛛 Absent		
					
Cover/Perches/B	asking/Denning/	Nesting Habitat			
Dense herba	aceous cover (vo	les, small mamm	nals, amphibians	& reptiles)	
Large woody	debris on the g	round (small mar	nmals, mink, arr	nphibians & repti	les)
Rocks, crevi	ces, logs, tree ro	ots or hummock	s under water's s	surface (turtles,	snakes, frogs)
		overhanging brai es, frogs, wading			
Rock piles, c	revices, or hollo	w logs suitable fo	or:		
otter	mink	porcupine	🗌 bear	bobcat	turkey vul
Live or dead	standing vegeta	tion overhanging	water or offerin	g good visibility	of open water (e
osprey, kingf	fisher, flycatcher	s, cedar waxwing	gs)		
Depressions that	t may serve as s	easonal (vernal/a	autumnal) pools		
	□ F	Present	🛛 Absent		
Standing water p	present at least p	art of the growin	g season, suitab	le for use by	
Breeding am	phibians	1 🗆	Non-breeding an	nphibians (forag	ing, re-hydration
Turtles		□ F	-oraging waterfo	wl	
Sphagnum humr to pools of stand				ogs, overhanginę	g or directly adja



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands Program

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rt 2. Field Data I	•••••••••••••••••••••••••••••••••••••••		
Important habitat chara	cteristics (if present, des	cribe and quantify them on a separate sheet)	
Medium to large (> 6"), for spring & two-lined s		n (cover for stream salamanders and nesting l	nabitat
	Present	🖂 Absent	
	banks or within exposed ng habitat for dusky salar	portions of streambeds (cover for stream nanders)	
	Present	⊠ Absent	
Underwater banks of fir	ne silt and/or clay (beave	r, muskrat, otter)	
	Present	⊠ Absent	
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)	
	Present	⊠ Absent	
Vertical sandy banks (b	oank 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 suitat	le for turtle nesting	
	Present	⊠ Absent	
<u>Wildlife dens/nests (if p</u>	resent, describe & quant	fy 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	

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Den(s) present of

Otter

🗌 Mink

Beaver



Wildlife Habitat Protection Guidance

ppendix B: Detailed Wildlife Habitat Evalu	uation	
art 2. Field Data Form (continued)		
Project area is within:		
100' of beaver, mink or otter den, bank swallov	v 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 flo green heron, black-crowned night heron, king rail, '		n (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least se (mallard, American bittern, sora, common snipe, re		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
Cattail emergent wetland vegetation at least seaso	nally 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 sed season (common snipe, spotted sandpiper, sedge		during the growing
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
Landscape Context		
Habitat Continuity (if present, describe the landso importance for area-sensitive species)	cape context on a separate shee	et and its
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

٩r	pendix I	B:	Detailed	Wildlife	Habitat	Evaluation
- Г						

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., purple loosestrife, *Phragmites*, glossy buckthorn)
- 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 1. Summary Sheet

Acushnet to Fall River Reliability Project

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

Project Name	
Fall River, MA. Reservoir	Bordering Vegetated Wetlands D17 and D18 and BLSF associated with the Copicut

Please refer to breakdown of impacts below.	11/23/2021
Size of Area Being Impacted	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. D18: Secondary (tree clearing converted to shrub or emergent vegetation)		18,254 sf (0.42 — acres)		0.42 acres
2. D18: Temporary (work pads, pull pads, and access)		9,204 sf (0.21 acres)		0.21 acres
3. D17: Temporary (work pads and access)		3,416 sf (0.08 acres) —		0.08 acres
4.				
5.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.

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.

mhy Lake

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

M. Lamothe

Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Fall River, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetlands D17 and D18	
Impact Area (number/name)	
11/15/2017	
Date(s) of Site Visit(s) and Data Collection	
Partly Sunny, 44 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/23/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mha Satre

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:	-
Class:	Forested	Subclass:	Broad-Leaved Deciduous
Hydrology/Wa	ter Regime		
Permaner	tly flooded	Saturated	
Intermittently exposed		Temporarily flooded	
Semi-perr	nanently flooded		[,] flooded
🛛 Seasonall	y flooded	Artificially flo	oded

- 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)
 - "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.

Community Name		
Vegetation Description	 	

Physical Description



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community): ***Plant community inventoried in BVW D18. BVW D17 is predominately scrub-shrub

% Cover:	90	40	5	30	15	
	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
Tree	Betula lenta (45%)*	Herb	Osmundastrum cinnamomeum (10%)*
Tree	Fagus grandifolia (20%)*	Herb	Juncus effusus (5%)*
Tree	Pinus strobus (15%)		
Tree	Acer rubrum (10%)		
Shrub	Vaccinium		
Shrub	corymbosum (30%)* Pinus strobus (10%)*		

C. Inventory (Soils)

Ridgebury FSaL, 3-8% slopes, extremely stony Soil Survey Unit	Poorly Drained Drainage Class
Organic fibric (0"-2"), Fine Sand (2"-11")	11"
Texture (upper part)	Depth
3"	
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)

🔀 Absent

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

Abundant 🛛 Present

Shrub thickets or streambeds with abundant earthworms (American woodcock)

Present

🛛 Absent

Absent

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

Absent



Wildlife Habitat Protection Guidance

	ta Form (c	ontinued)			
Number of trees (live or dead) > 30" DBH:		0" DBH:	0		
Number (or density	ν) of Standing Γ)ead Trees (note	ntial for cavities	and nerches).	
0	, c				
6-12" dbh	0 12-18" db	bh	0 18-24" dbh	> 24	4" dbh
Number of Tree Ca	avities in trunks	or limbs of:			
0					
6-12" diameter (e.g., tre	e swallow, saw wh	et owl, screech owl, I	oluebird, other song	oirds)	
0 12-18" diameter (e.g., h	nooded merganser.	wood duck, common	goldeneve, mink)		
0	-				
>18" diameter (e.g., hood	ded merganser, woo	d duck, common golde	neye, common merg	anser, barred owl, mir	nk, raccoon, fisher)
Small mammal bur	rows				
Abundant	П Р	resent	🖂 Absent		
Cover/Perches/Bas	sking/Denning/I	Nesting Habitat			
Dense herbace	eous cover (vol	es, small mamma	als, amphibians	& reptiles)	
Large woody d	lebris on the gro	ound (small mam	mals, mink, am	ohibians & reptil	es)
Rocks, crevice	es, logs, tree roo	ots or hummocks	under water's s	urface (turtles, s	nakes, frogs)
		verhanging bran s, frogs, wading			
Rock piles, cre	vices, or hollow	/ logs suitable for			
otter	🛛 mink	porcupine	bear	☐ bobcat	🗌 turkey vu
		ion overhanging			
		, cedar waxwings		, geen nementy -	
Depressions that n	nay serve as se	asonal (vernal/a	utumnal) pools		
	□ P	resent	🛛 Absent		
Standing water pre	esent at least pa	art of the growing	season, suitabl	e for use by	
				nhihiana (faragir	na ro hydratio
Breeding ampl	hibians	🖂 N	on-breeding am	priibiaris (ibragii	ig, ie-nyulalio
.	nibians		on-breeding am oraging waterfo\		ig, ie-nyulaio

Present Absent



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data F	orm (continued)		
Important habitat charac	teristics (if present, des	cribe and quantify th	nem on a separate sheet)
Medium to large (> 6"), f for spring & two-lined sa		n (cover for stream s	alamanders and nesting habitat
	Present	🛛 Absent	
Flat rocks and logs on b salamanders and nestin			eds (cover for stream
	Present	🛛 Absent	
Underwater banks of fin	e silt and/or clay (beave	r, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhanging	g banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (ba	ank swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open w	vater in winter		
	Present	🛛 Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-d	rained, sandy soil suital	ole for turtle nesting	
	Present	🛛 Absent	
<u>Wildlife dens/nests (if pr</u>	esent, describe & quant	ify them on the back	<u>c of this sheet)</u>
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 Eval	uation	
Part 2. Field Data Form (continued)		
Project area is within:		
☐ 100' of beaver, mink or otter den, bank swallo	w 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 & quantif	fy them on a separate sheet)	
Emergent wetland vegetation at least seasonally f green heron, black-crowned night heron, king rail,		ו (wood duck,
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
Persistent emergent wetland vegetation at least se (mallard, American bittern, sora, common snipe, r		
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen))	🛛 Absent
Cattail emergent wetland vegetation at least sease	onally flooded during the growing	season
Flooded > 5 cm (marsh wren)	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent
Fine-leafed emergent vegetation (grasses and sea season (common snipe, spotted sandpiper, sedge		during the growing
Flooded > 5 cm	Present	🛛 Absent
Flooded > 25 cm (least bittern, common moorhen)	🛛 Absent
/. Landscape Context		
. Habitat Continuity (if present, describe the lands importance for area-sensitive species)	cape context on a separate sheet	and its
Is the impact area part of an emergent marsh at least	1.0 acre in size?	🛛 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

٩r	pendix I	B:	Detailed	Wildlife	Habitat	Evaluation
- Г						

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	f 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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.

Acushnet to Fall River Reliabil	lity Project			
Project Name				
Fall River, MA. Bordering Vec	getated Wetland D	19 and D19A and i	ntermittent strea	m SD-19
Please refer to breakdown of i Size of Area Being Impacted	mpacts below.		<u>11/2</u>	23/2021
Impact Areas (linear feet, squa	are feet, or acres fo Waterbody/ Waterway	or each of the impa Wetland	act areas within tl Upland*	he site) Total Area
1. D19A and SD-19A: Secondary (tree clearing converted to shrub or emergent vegetation)		151 sf (0.003 acres)		0.003 acres

2. D19 Temporary: (work pads and access)

3.		
4.	 	
5.		

2.430 sf (0.06

acres)

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.

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.

mhy date

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

M. Lamothe Typed or Printed Name 0.06 acres



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Fall River, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D19 and D19A and intermittent stream SD-1	9
Impact Area (number/name)	
11/15/2017	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 44 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/23/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mha Satre

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:	-	
Class:	Scrub-Shrub	Subclass:	Broad-Leaved Deciduous	
Hydrology/Wa	ter Regime			
Permaner	tly flooded	Saturated		
Intermitter	ntly exposed	Temporarily flooded		
Semi-pern	nanently flooded		r flooded	
Seasonall	y flooded	Artificially flo	oded	

- 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)
 - "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.

Community Name		
Vegetation Description	 	

Physical Description



Wildlife Habitat Protection Guidance

Appendix E	3. Detailed	Wildlife	Habitat	Evaluation
Appendix L	J. Delaneu	WIIUIIIE	Παρπαι	

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover:	10	80	0	10	65
-	Trees (> 2	, , , ,	Woody vines	Mosses	Herbaceous
		comprise 10% or more of for the strata):	f the vegetative c	over in each	strata; *** designates
Strata		Plant Species	Strata		Plant Species
Tree		Pinus strobus (5%)*			
Tree		Quercus alba (5%)*			
Shrub		Smilax rotundifolia (70)*			
Shrub		Vaccinium			
Herb		corymbosum (15%) Rubus hispidus (50%)*	•		
Herb		Grass sp. (15%)			
with gravels (NA Depth to Water 1	11"-12") ^{Fable}	res (complete for all re		n on a separa	te sheet & attach.
Wildlife Food					
Important We	etland/Aquat	ic Food Plants (smartwe	eds, pondweeds,	wild rice, bu	Irush, wild celery)
Abundan	t	Present	🛛 Absent		
Important Up	land/Wetlan	d Food Plants (hard mas	st and fruit/berry p	oroducers)	
🛛 Abundan	t	Present	Absent		
Shrub thicket	s or streamt	peds with abundant earth	nworms (America	n woodcock)	1
		Present	🛛 Absent		
.					

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

🛛 Absent



rt 2. Field D	ata Form (cor	ntinued)			
Number of trees	(live or dead) > 30'	DBH:	0		
Number (or dens	ity) of Standing De	ad Trees (pote	ential for cavities	and perches):	
1				. ,	
6-12" dbh	12-18" dbh		0 18-24" dbh	> 2	24" dbh
Number of Tree (Cavities in trunks o	r limbs of:			
1	tree swallow, saw whet		h ha a h faoil a still a su a su a		
0				jbiras)	
12-18" diameter (e.g.	, hooded merganser, wo	ood duck, commo	n goldeneye, mink)		
0 >18" diameter (e.g., ho	oded merganser, wood o	luck, common gold	eneye, common mer	ganser, barred owl, m	ink, raccoon, fisher)
Small mammal b	-	, C			, , ,
Abundant		sent	🛛 Absent		
Cover/Perches/B	asking/Denning/Ne	esting Habitat			
Dense herba	ceous cover (voles	, small mamm	als, amphibians	& reptiles)	
🛛 Large woody	debris on the grou	ind (small man	nmals, mink, arr	phibians & repti	les)
Rocks, crevic	ces, logs, tree roots	s or hummocks	s under water's	surface (turtles,	snakes, frogs)
	ces, fallen logs, ove ce (turtles, snakes,				
Rock piles, c	revices, or hollow l	ogs suitable fo	r:		
otter	mink	porcupine	🗌 bear	🗌 bobcat	🗌 turkey vu
	standing vegetatio isher, flycatchers, o			g good visibility	of open water (
Depressions that	may serve as seas	sonal (vernal/a	utumnal) pools		
	Pre	sent	🛛 Absent		
Standing water p	resent at least part	of the growing	g season, suitab	le for use by	
Breeding am	phibians	<u> </u>	lon-breeding an	nphibians (forag	ing, re-hydratior
Turtles		🗌 F	oraging waterfo	wl	
	nucks or mats, mos ng water in spring			ogs, overhanging	g or directly adja
,		sent	Absent		



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field [Data Form (cont	nued)		
Important habita	at characteristics (if pro	esent, describe an	d quantify the	em on a separate sheet)
	e (> 6"), flat rocks withi -lined salamanders)	n a stream (cover	for stream sa	alamanders and nesting habitat
	Prese	ent 🛛	Absent	
	ogs on banks or within nd nesting habitat for d			ds (cover for stream
	Prese	ent 🛛	Absent	
Underwater bar	nks of fine silt and/or c	ay (beaver, muskr	at, otter)	
	Prese	ent 🖂	Absent	
Undercut or ove	erhanging banks (smal	I mammals, mink,	weasels)	
	Prese	ent 🛛	Absent	
Vertical sandy b	oanks (bank swallow, k	kingfisher)		
	Prese	ent 🖂	Absent	
Areas of ice-free	e open water in winter			
	Prese	ent 🛛	Absent	
Mud flats				
	Prese	ent 🖂	Absent	
Exposed areas	of well-drained, sandy	soil suitable for tu	rtle nesting	
	Prese	ent 🛛	Absent	
Wildlife dens/ne	ests (if present, describ	e & quantify them	on the back	<u>of this sheet)</u>
Turtle nesting s	ites			
	Prese	ent 🖂	Absent	
Bank swallow c	olony			
	Prese	ent 🖂	Absent	
Nest(s) present	of 🗌 Bald	Eagle	Osprey	Great Blue Heron
Den(s) present	of 🗌 Otter		Mink	Beaver



	pendix B: Detailed Wildlife Habitat Evalu art 2. Field Data Form (continued)	ation				
	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) 	coorry of tartie resulting area				
	1400' of a Bald Eagle nest ¹					
	Emergent Wetlands (if present, describe & quantify		<i>,</i>			
	Emergent wetland vegetation at least seasonally flo green heron, black-crowned night heron, king rail, V		n (wood duck,			
	Flooded > 5 cm	Present	🛛 Absent			
	Flooded > 25 cm (pied-billed grebe)	Present	Absent			
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, rec	, , , ,	0			
	Flooded > 5 cm	Present	🛛 Absent			
	Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent			
	Cattail emergent wetland vegetation at least seasor	nally 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 sedg season (common snipe, spotted sandpiper, sedge v		during the growing			
	Flooded > 5 cm	Present	🛛 Absent			
	Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent			
IV.	Landscape Context					
Α.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its			
	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?	🖂 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

Δr	nendix B	· Detailed	Wildlife	Habitat	Evaluation
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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	f 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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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
kev

Acushnet to Fall River Reliability Project	
Project Name	
Fall River, MA. Bordering Vegetated Wetland D20	
Location	
Please refer to breakdown of permanent, secondary, and temporary	11/29/2021
impacts below.	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. Permanent (structure footprint)		48 sf (0.001 acres)		0.001 acres
2. Secondary (tree clearing converted to shrub or emergent vegetation)				0.42 acres
3. Temporary (work pads and access)		19,732 sf (0.45 acres)		0.45 acres
4.				

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.

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))

M. Lamothe

Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Fall River, MA	
Project Location (from NOI page 1)	
Bordering Vegetated Wetland D20	
Impact Area (number/name)	
11/15/2017	
Date(s) of Site Visit(s) and Data Collection	
Sunny, 44 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/29/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed

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

mhy Sate

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:	-	
Class:	Forested	Subclass:	Broad-Leaved Deciduous	
Hydrology/Wa	ter Regime			
Permanently flooded		Saturated		
Intermittently exposed		Temporarily flooded		
Semi-permanently flooded		Intermittently flooded		
🛛 Seasonall	y 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)
 - "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.

Community Name		
Vegetation Description		
Physical Description		



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

% Cover:	90	60	0	10	25	
% Cover.	Trees (> 20')	Shrubs (< 20')	Woody vines	Mosses	Herbaceous	
Plant Lists (spe a dominant plar			the vegetative co	over in eacl	n strata; "*" designates	
Strata	Pla	nt Species	Strata		Plant Species	
Tree	Ace	er rubrum (45%)*	Shrub		Pinus strobus (20%)	
Tree	Qu	ercus alba (30%)*	Shrub		Fagus grandifolia (5%)	
Tree	Bet	tula lenta (10%)	Shrub		Carpinus caroliniana (<5%)	
Tree	Pin	us strobus (5%)	Herb		Clethra alnifolia (15%)*	
Tree	Fag	gus grandifolia	Herb		Pinus strobus (10%)*	
	(5%	6)			<u></u> _	
Shrub	Cle	thra alnifolia	Herb		Carex sp. (5%)	
	(35	%)*	Herb		Smilax rotundifolia (<5%)	
Inventory (Soils)					
Whitman FSaL, 0-3% slopes, extremely stony		Very Poorly Drained				
Soil Survey Unit	•		Drainage Class			
Organic (0"-4"), Silt Loam (4"-9"), Fine Sand (9"-		15"				
15")		Depth				

Depth to Water Table

C.

11"

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	
----------	--

🖂 Absent

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

Present

Abundant Present

Shrub thickets or streambeds with abundant earthworms (American woodcock)

🛛 Present

Absent

Absent

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

Absent



Number of trees	(live or dead) > 3	30" DBH:	0		
Number (or dens	ity) of Standing	Dead Trees (po	tential for cavities	and perches):	
5	0		0	0	
6-12" dbh	12-18" c	lbh	0 18-24" dbh	> 2	4" dbh
Number of Tree	Cavities in trunk	s or limbs of:			
•	tree swallow, saw w	het owl, screech ow	I, bluebird, other song	birds)	
0 12-18" diameter (e.g.	, hooded merganser	, wood duck, comm	on goldeneye, mink)		
0 >18" diameter (e.g., br	oded merganser wo	od duck, common do	deneye, common merg	lanser barred owl m	ink raccoon fisher)
Small mammal b	-	où duck, common gol	deneye, common merg	anser, barred owi, m	
Abundant		Present	Absent		
Cover/Perches/B	asking/Denning	/Nesting Habitat			
🛛 Dense herba	ceous cover (vo	les, small mamr	nals, amphibians	& reptiles)	
Large woody	debris on the g	round (small ma	mmals, mink, am	phibians & repti	les)
Rocks, crevie	ces, logs, tree ro	ots or hummocl	s under water's s	surface (turtles, s	snakes, frogs)
			nches or hummo g birds, wood duo		
🛛 Rock piles, c	revices, or hollo	w logs suitable f	or:		
otter	🛛 mink	porcupine	e 🗌 bear	bobcat	🗌 turkey vu
Live or dead	standing vegeta	tion overhangin	g water or offering	g good visibility	-
	isher, flycatcher		• /		
Depressions that	-	·			
		Present	Absent		
Standing water p	resent at least p	art of the growir	ng season, suitab	le for use by	
Breeding am	phibians	\boxtimes	Non-breeding arr	iphibians (foragi	ng, re-hydratior
Turtles			Foraging waterfo	wl	
		noss-covered lo	gs or saturated lo		ı or directly adja



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands Program _

ppendix B: Detailed	l Wildlife Habitat Ev	ection Guidance
art 2. Field Data	Form (continued)	
Important habitat chara	acteristics (if present, des	cribe and quantify them on a separate sheet)
Medium to large (> 6"), for spring & two-lined s		n (cover for stream salamanders and nesting habitat
	Present	🖂 Absent
	banks or within exposed ng habitat for dusky salar	portions of streambeds (cover for stream nanders)
	Present	⊠ Absent
Underwater banks of fi	ne silt and/or clay (beave	r, muskrat, otter)
	Present	Absent
Undercut or overhangir	ng banks (small mammal	s, mink, weasels)
	Present	⊠ Absent
Vertical sandy banks (b	oank 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 suitat	ble for turtle nesting
	Present	⊠ Absent
Wildlife dens/nests (if p	present, describe & quant	ify 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

Otter

Mink

Den(s) present of

Beaver



Ap	pendix B: Detailed Wildlife Habitat Evalu	ation	
Pa	rt 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 flo green heron, black-crowned night heron, king rail, ν		n (wood duck,
	Flooded > 5 cm	Present	🛛 Absent
	Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, red		
	Flooded > 5 cm	Present	🛛 Absent
	Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
	Cattail emergent wetland vegetation at least seasor	nally 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 sedg season (common snipe, spotted sandpiper, sedge v		during the growing
	Flooded > 5 cm	Present	🛛 Absent
	Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
IV.	Landscape Context		
A.	Habitat Continuity (if present, describe the landsca importance for area-sensitive species)	ape context on a separate sheet	and its
	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

4p	pendix B	3: Detailed	Wildlife Habitat	Evaluation
אר	pendix E	. Detunea	Whame Hasha	LValuation

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., purple loosestrife, *Phragmites*, glossy buckthorn)
- 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.



Wildlife Habitat Protection Guidance

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)
Example: standing dead trees 6-12" dbh	4	12	8



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 kev



Acushnet to Fall River Reliability Project

Project Name Fall River, MA. Upland Bordering Land Subject to Flooding associated with the Copicut Reservoir and RFA associated with Perennial Stream SD11 (Copicut River) Please refer to breakdown of permanent, secondary, and temporary 11/29/2021 Date impacts below.

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. Permanent (Structure footprint)			BLSF: 48 sf (0.001 acres)	0.001 acres
2. Secondary (tree clearing converted to shrub or emergent vegetation)			BLSF: 33,333 sf (0.77 acres)	0.77 acres
3. Secondary (tree clearing converted to shrub or emergent vegetation)			RFA: 4,074 sf (0.09 acres)	0.12 acres
 Temporary (work pads and access) 			BLSF: 14,195 sf (0.33 acres)	0.33 acres
Temporary (work pads and access)			RFA: 338 sf (0.001 acres)	0.001 acres

*Riverfront Area/BLSF

Attach Sketch map and/or photos of the Impact Areas

Narrative Description of Site (attach separate page if necessary)

Please refer to attached Wildlife Habitat Evaluation for Fall River which also includes a photographic log.

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.

mha Latre

M. Lamothe

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

Typed or Printed Name



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

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

I. General Information

Fall River, MA

Project Location (from NOI page 1)

Upland Bordering Land Subject to Flooding associated with the Copicut Reservoir and Upland RFA associated with Perennial Stream SD11 (Copicut River)

06/24/2021 Date(s) of Site Visit(s) and Data Collection

Sunny, 73 degrees for temperature	
Weather Conditions During Site Visit (if snow cover, include depth)	
M. Lamothe	11/29/2021
Person completing form per 310 CMR 10.60(1)(b)	Date this form was completed
The information on this data sheet is based on my observa	tions unless otherwise indicated

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

mhy Sate

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:	Subsystem:
Class:	Subclass:
Hydrology/Water Regime	
Permanently flooded	Saturated
Intermittently exposed	Temporarily flooded
Semi-permanently flooded	Intermittently flooded
Seasonally flooded	Artificially flooded
For Riverfront or Bordering Land Subject to Flooding Use a terrestrial classification system such as o	
 a. "Classification of the Natural Communities of Massac Kearsley, MA DFW NHESP, Westborough, MA. July 	husetts (Draft)" by Patricia C. Swain and Jennifer B.
 "New England Wildlife: Habitat, Natural History, and I Rudis, USDA Forest Service, Northeastern Forest Ex 	Distribution" by Richard M. DeGraaf and Deborah D. periment Station. General Technical Report NE-108.

August 1992. 491 pages.

Eastern white pine

Community Name Eastern white pine is pure or usually predominant. In pure stands the understory is composed primarily of ericaceous shrubs, such as blueberry.

Widespread in central New England from sea level to elevations of 2500 feet. Establishment is often easier on poor sites because hardwood competition is less.

2.



Wildlife Habitat Protection Guidance

Appendix B: Detailed Wildlife Habitat Evaluation

Part 2. Field Data Form (continued)

B. Inventory (Plant community)

	% Cover:	80	10	0	0	5		
		Trees (> 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):							
			lant Species	Strata		Plant Species		
			inus strobus (60%)*	Shrub		Quercus alba (<5%)*		
	Tree	Q	Quercus rubra (10%)	Shrub		Clethra alnifolia (<5%)		
	Tree		agus grandifolia 5%)	Herb		Maianthemum canadense (<5%)		
	Tree	J	uniperus virginiana <5%)	-				
	Shrub	H	, lamamelis virginiana 5%)	-				
	Shrub	È	agus grandifolia 5%)	_				
C.	Inventory (Soils)							
	Paxton FSaL, 0)-8% slopes,	very stony	Well Drained				
	Soil Survey Unit			Drainage Class				
	SiL (0"-1"), FSa Texture (upper par		l (1"-8")	8" Depth				
	No water table	()		Deptil				
	Depth to Water Table	ole		-				
III.	Important Habitat Features (complete for all resource areas)							
	-		ristics are present, des	-	m on a separ	ate sheet & attach.		
	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 streambed	ls with abundant ear	hworms (America	n woodcock	x)		
			Present	🛛 Absent				

Shrub and/or herbaceous vegetation suitable for veery nesting

Present

🛛 Absent



rt 2. Field [Data Form (continued)			
Number of trees	s (live or dead) >	30" DBH:	0		
Number (or den	sity) of Standing	Dead Trees (pote	ntial for cavities	and perches):	
	•			. ,	
6-12" dbh	12-18" c	lbh	18-24" dbh	> 24	" dbh
Number of Tree	Cavities in trunk	s or limbs of:			
0		het owl, screech owl,	-	birds)	
-	g., hooded mergansei	r, wood duck, commor	goldeneye, mink)		
0 >18" diameter (e.g., h	nooded merganser, wo	od duck, common golde	neye, common merg	anser, barred owl, min	ık, raccoon, fisher)
Small mammal					
Abundant		Present	Absent		
Cover/Perches/	Basking/Denning	/Nesting Habitat			
Dense herb	aceous cover (vo	les, small mamma	als, amphibians	& reptiles)	
Large wood	y debris on the g	round (small marr	mals, mink, am	phibians & reptile	es)
Rocks, crev	ices, logs, tree ro	oots or hummocks	under water's s	surface (turtles, s	nakes, frogs)
		overhanging bran es, frogs, wading			
Rock piles,	crevices, or hollo	w logs suitable fo			
otter	mink	porcupine	🗌 bear	bobcat	turkey vult
		ition overhanging s, cedar waxwing		g good visibility o	f open water (e
Depressions that	at may serve as s	easonal (vernal/a	utumnal) pools		
		Present	Absent		
Standing water	present at least p	part of the growing	season, suitab	le for use by	
Breeding ar	nphibians	□ N	on-breeding arr	ıphibians (foragir	ng, re-hydration)
Turtles		🗌 F	oraging waterfo	wl	
		noss-covered logs ng (four-toed sala		gs, overhanging	or directly adjac
	<u> </u>				



Wildlife Habitat Protection Guidance Appendix B: Detailed Wildlife Habitat Evaluation

ponal Di Dotalica	maine nabitat Et	ardation	
art 2. Field Data I	Form (continued)		
Important habitat chara	<u>cteristics (if present, des</u>	cribe and quantify t	hem on a separate sheet)
Medium to large (> 6"), for spring & two-lined sa		n (cover for stream	salamanders and nesting habitat
	☑ Present	Absent	
	banks or within exposed ng habitat for dusky sala		eds (cover for stream
	⊠ Present	Absent	
Underwater banks of fir	ne silt and/or clay (beave	er, muskrat, otter)	
	Present	🛛 Absent	
Undercut or overhangin	ng banks (small mammal	s, mink, weasels)	
	Present	🛛 Absent	
Vertical sandy banks (b	ank swallow, kingfisher)		
	Present	🛛 Absent	
Areas of ice-free open	water in winter		
	⊠ Present	Absent	
Mud flats			
	Present	🛛 Absent	
Exposed areas of well-o	drained, sandy soil suital	ble for turtle nesting	I
	Present	🛛 Absent	
Wildlife dens/nests (if p	resent, describe & quant	tify them on the bac	<u>k of this sheet)</u>
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



	opendix B: Detailed Wildlife Habitat Evalu art 2. Field Data Form (continued)	lation	
1 6			
	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 flo green heron, black-crowned night heron, king rail, \		n (wood duck,
	Flooded > 5 cm	Present	🛛 Absent
	Flooded > 25 cm (pied-billed grebe)	Present	🛛 Absent
	Persistent emergent wetland vegetation at least sea (mallard, American bittern, sora, common snipe, rea		
	Flooded > 5 cm	Present	🛛 Absent
	Flooded > 25 cm (least bittern, common moorhen)	Present	🛛 Absent
	Cattail emergent wetland vegetation at least seasor	nally 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 sede season (common snipe, spotted sandpiper, sedge v		during the growing
	Flooded > 5 cm	Present	🛛 Absent
	Flooded > 25 cm (least bittern, common moorhen)	Present	Absent
IV.	Landscape Context		
A.	Habitat Continuity (if present, describe the landscription importance for area-sensitive species)	ape context on a separate sheet	and its
	Is the impact area part of an emergent marsh at least	1.0 acre in size? Ves	🛛 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

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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., purple loosestrife, *Phragmites*, glossy buckthorn)
- □ 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.



Wildlife Habitat Protection Guidance

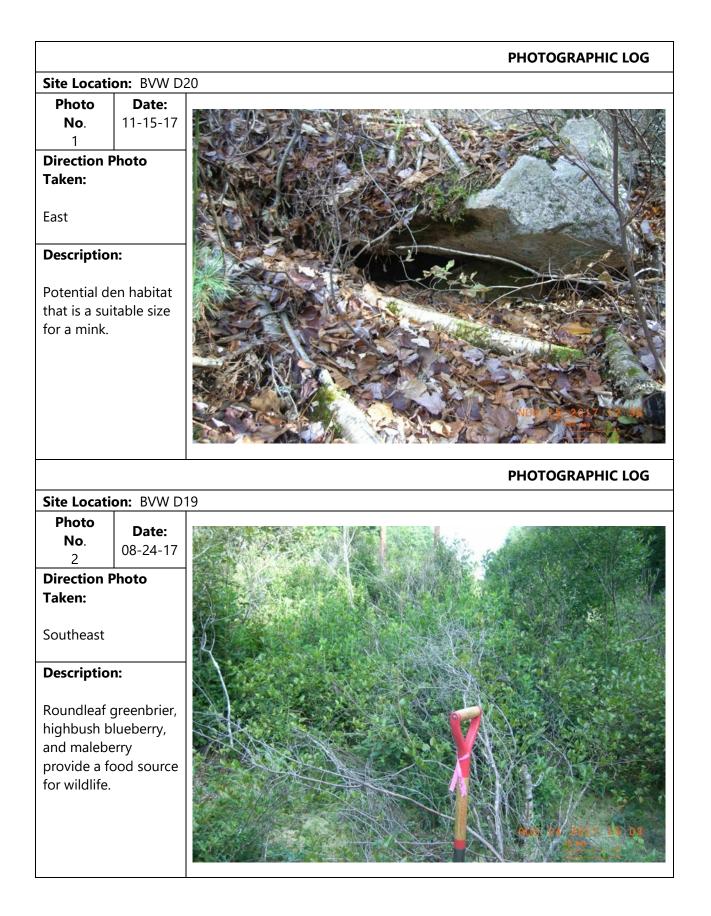
Appendix B: Detailed Wildlife Habitat Evaluation

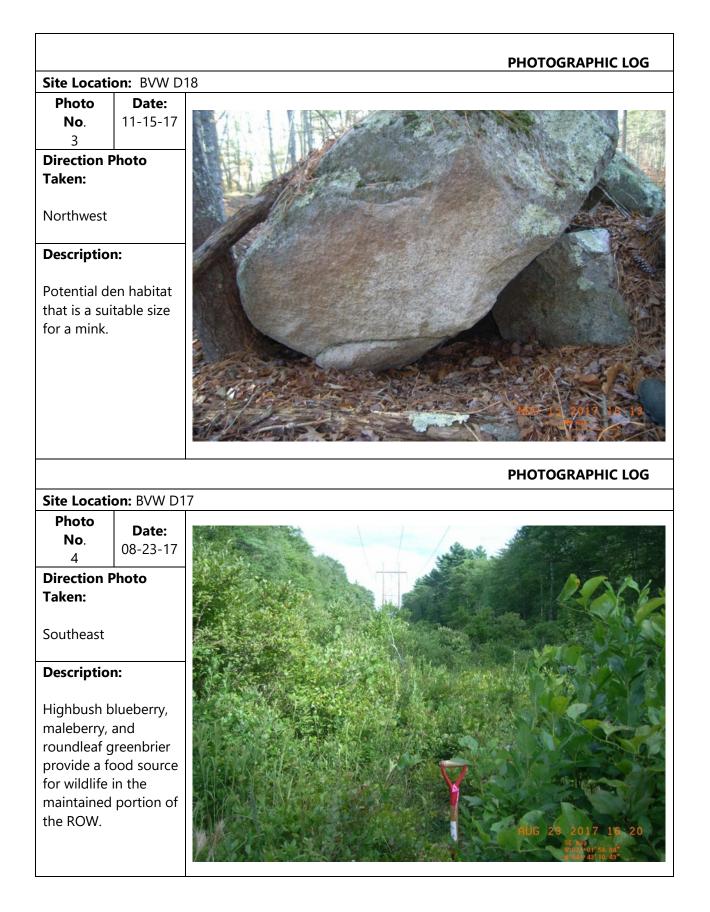
Part 2. Field Data Form (continued)

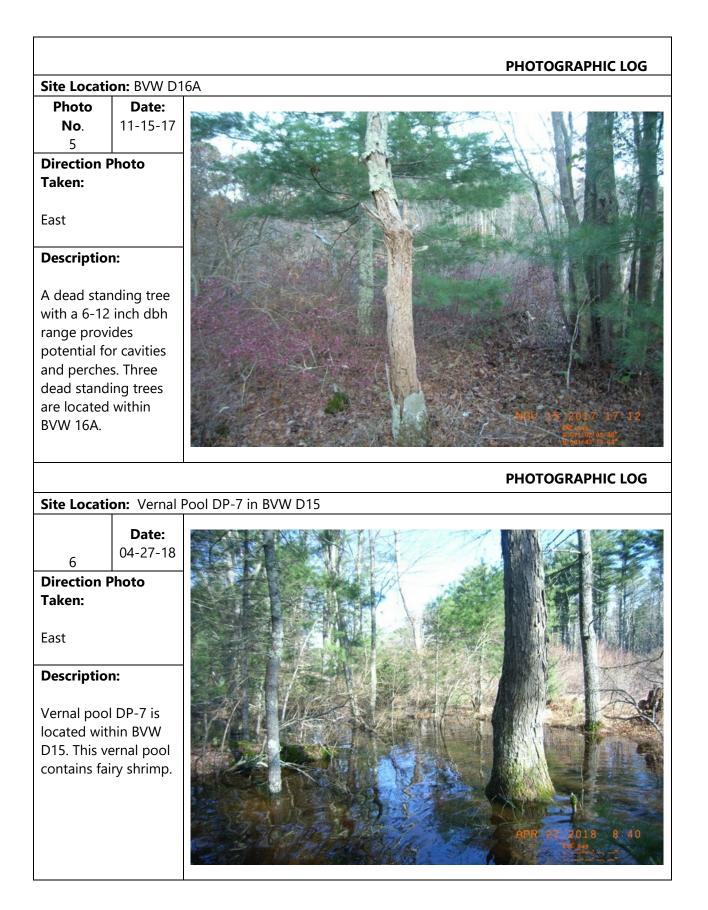
VI. Quantification Table for Important Habitat Characteristics

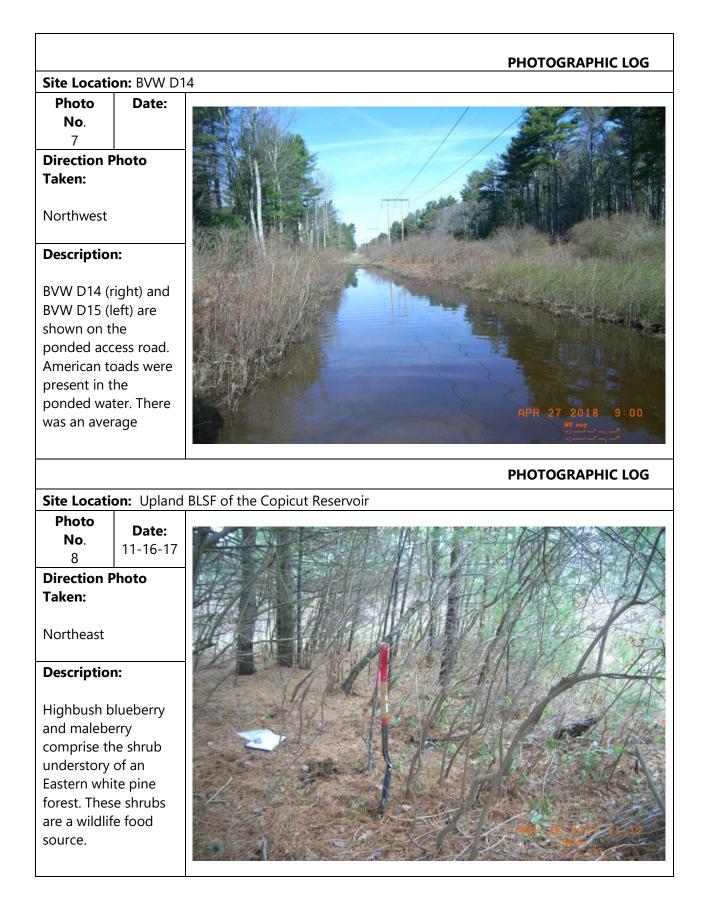
Habitat Characteristic	Amount Impacted in Impact Area	Current (entire site)	Post-Construction (entire site)
Example: standing dead trees 6-12" dbh	4	12	8

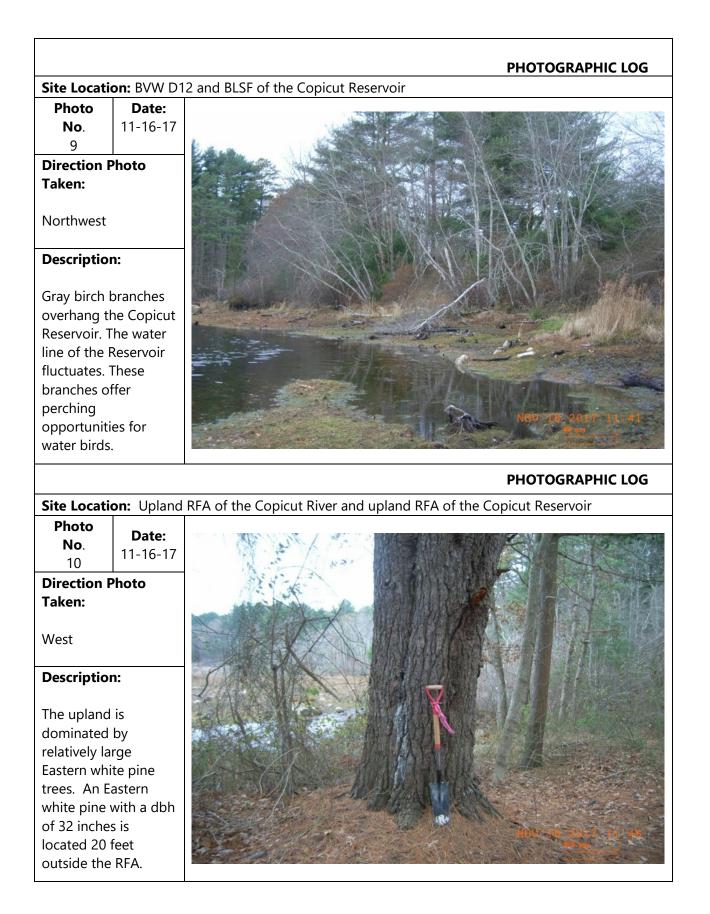
ATTACHMENT B HABITAT CHARACTERISTICS PHOTOGRAPH

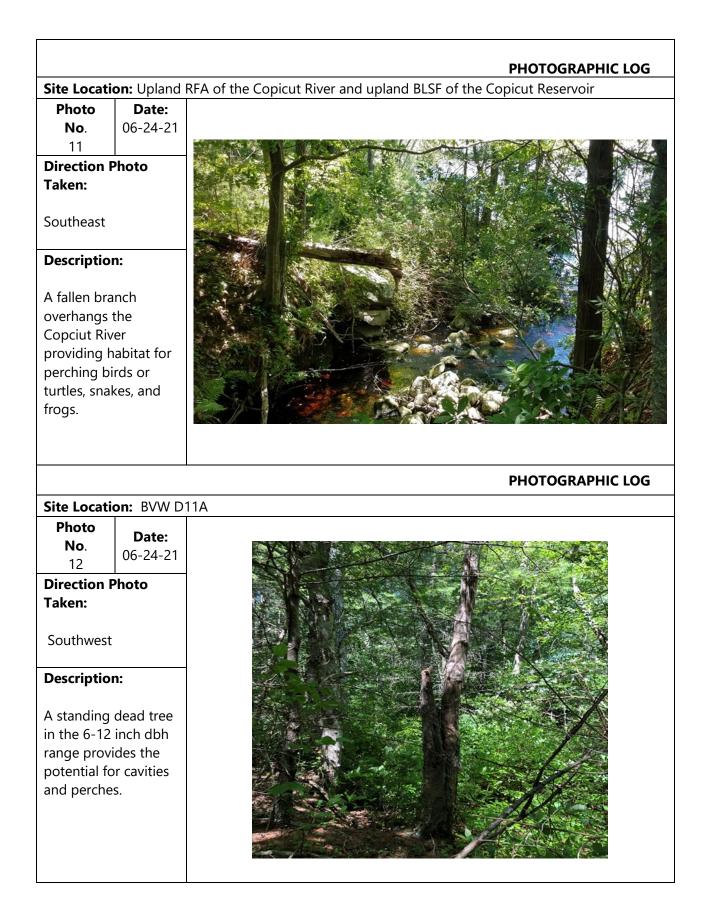


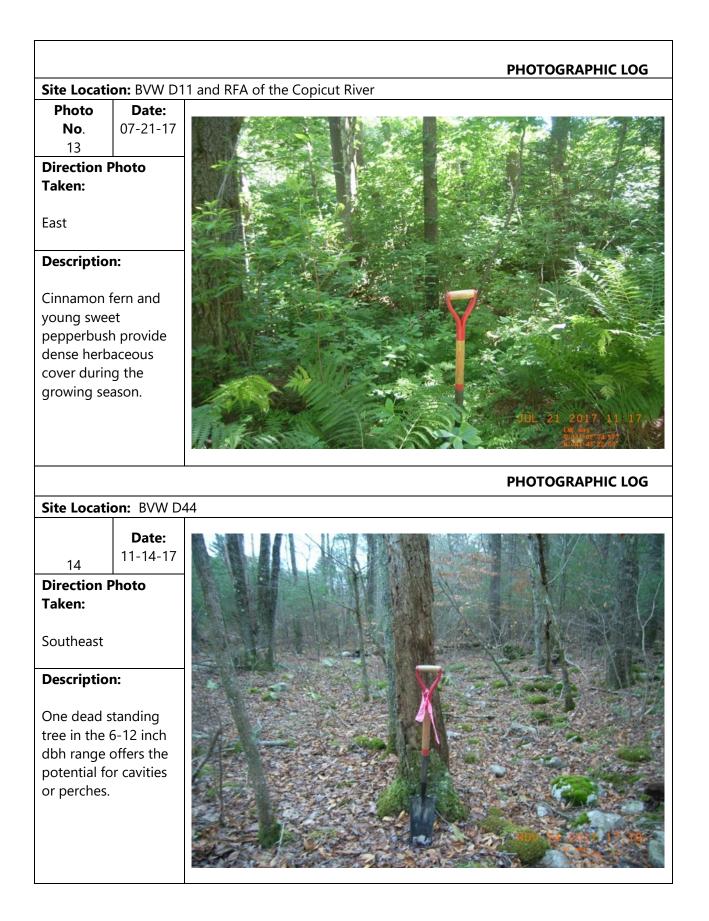


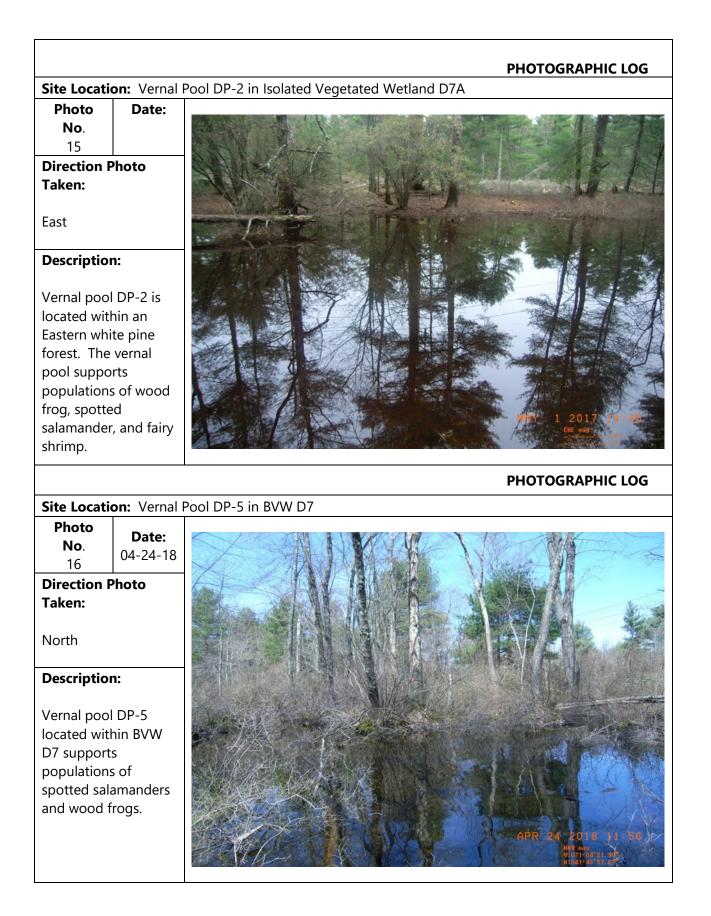


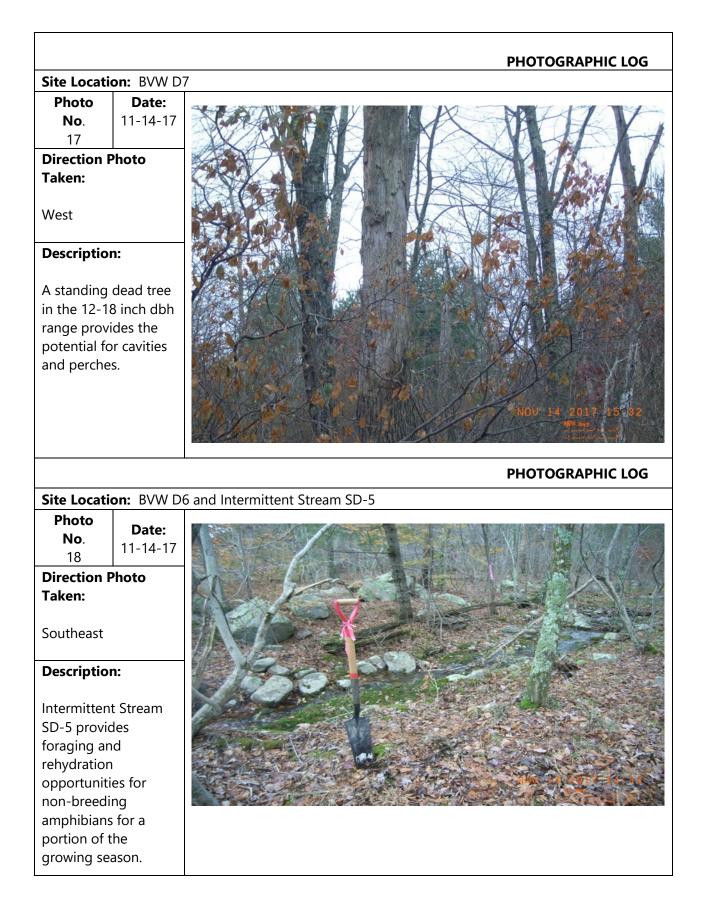


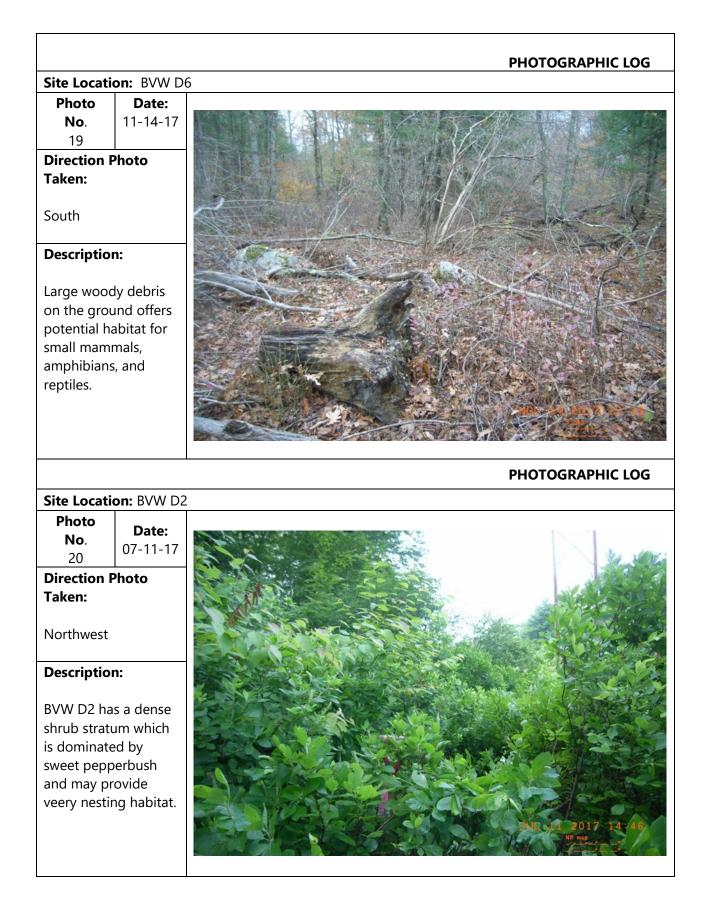












Site Locat	ion: BVW D	1			PHOTOGRA	APHIC LUG
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	ion: BVW L1				PHOTOGRA	APHIC LOG
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Photo No . 22	Date: 04-24-11		State Co		PHOTOGRA	
Photo No. 22 Direction	Date: 04-24-11				PHOTOGRA	
Photo No. 22 Direction	Date: 04-24-11				PHOTOGRA	
Photo No. 22 Direction Taken:	Date: 04-24-11 Photo				PHOTOGRA	
Photo No. 22 Direction Taken:	Date: 04-24-11 Photo				PHOTOGRA	APHIC LOG
Photo No. 22 Direction Taken: Southwest	Date: 04-24-11 Photo				PHOTOGRA	APHIC LOG
Photo No. 22 Direction Taken: Southwest Descriptio	Date: 04-24-11 Photo				PHOTOGRA	APHIC LOG
Photo No. 22 Direction Taken: Southwest Descriptio	Date: 04-24-11 Photo				PHOTOGRA	APHIC LOG
Photo No. 22 Direction Taken: Southwest Descriptio Vernal poc located wit	Date: 04-24-11 Photo I LP-1 chin BVW				PHOTOGRA	APHIC LOG
Photo No. 22 Direction Taken: Southwest Descriptio Vernal poor located wit L1 support	Date: 04-24-11 Photo I LP-1 chin BVW s				PHOTOGRA	APHIC LOG
Photo No. 22 Direction Taken: Southwest Descriptio Vernal poor located wit L1 support population	Date: 04-24-11 Photo Photo I LP-1 thin BVW s is of				PHOTOGRA	APHIC LOG
Photo No. 22 Direction Taken: Southwest Description Vernal poor located wit L1 support population spotted sa	Date: 04-24-11 Photo I LP-1 thin BVW s is of lamanders				PHOTOGRA	APHIC LOG
Photo No.	Date: 04-24-11 Photo I LP-1 thin BVW s is of lamanders				PHOTOGRA	APHIC LOG
Photo No. 22 Direction Taken: Southwest Description Vernal poor located wit L1 support population spotted sa	Date: 04-24-11 Photo I LP-1 thin BVW s is of lamanders					APHIC LOG