

Seacoast Reliability Project Avoidance and Minimization

Best Management Practices and Construction Plan for Protected Wildlife and Plants

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Table of Contents

Table of Contents **i**

List of Tables..... **ii**

1. Introduction **1**

2. TOY Clearing, Construction Plan and BMPs **1**

 2.1 *Wildlife Resources* 1

 2.2 *Fisheries* 6

 2.3 *Botanical Resources*..... 10

List of Tables

Table 1. Raptor species nesting dates and nest buffer zones* 3

Table 2. Seasons in which protected fish, diadromous fish, and Essential Fish Habitat species are likely to be found Little Bay. Shading indicates species and seasons that will be affected by the SRP Fall and Winter work window in Little Bay. 7

Table 3. Seasons in which protected fish species and diadromous fish are likely to be found in freshwater habitats in the SRP area. Shading indicates species and seasons that will be affected by the SRP work..... 9

1. Introduction

This document summarizes time-of-year (TOY) considerations and best management practices (BMPs) for construction of the Seacoast Reliability Project to avoid and minimize impacts to protected wildlife and plant resources. The resources described herein are those that must be considered to meet permitting requirements; they are based on the regulatory status of the resources and input from the resource agencies (US Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), NH Fish and Game Department (NHFG), NH Natural Heritage Bureau (NHB), and NH Department of Environmental Services (DES). The TOY and BMPs incorporate standard practices for these agencies. Because the permit application review process is ongoing and authorizations for construction have not been issued yet, the measures described herein may be subject to modification. Additional input from the agencies will be incorporated if presented, and further adjustments may also be required as part of the final permit conditions.

As set forth in the Site Evaluation Committee (SEC) Application and other permit applications, the Project has been designed to avoid and minimize impacts to protected plant and wildlife species to the extent practicable. This document describes the TOYs and (Best Management Practices) BMPs that apply to each species of concern. Once approved, the locations where the TOY restrictions and BMPs apply will be depicted on the construction plan set.

Due to the complexity of the construction sequence of work, the focus of this TOY plan will be to avoid and mitigate impacts.

Attachment 1 has a simplified summary table of TOY Restrictions, restricted activity and avoidance & BMPs. Attachment 2 has a summarized bullet list of the same information.

2. TOY Clearing, Construction Plan and BMPs

The following restrictions are organized by species or groups of species. The restricted activities have been broadly grouped into *Clearing*, *Site Preparation*, and *Construction*. *Clearing* includes cutting of trees 3 inches in diameter at breast height (dbh) or larger, mowing, and/or brush-cutting of vegetation less than 3 inches dbh. If only one type of clearing is restricted, this is noted. *Site Preparation* includes installation of access roads and crane pads; preliminary route clearing and preparation in Little Bay, installation of erosion and sediment controls, placement of timber mats, and installation of exclusion fencing if needed; and blasting, if needed. *Construction* includes excavation, transport of construction-related materials, and assembly and installation of structures and the submarine cable within the prepared access roads and construction envelopes, and site work to initiate restoration. Pedestrian access for inspection or hand work is not restricted unless specifically noted.

2.1 Wildlife Resources

General Wildlife Avoidance Measures

Restriction Dates: Follow these recommendations at all times

Restricted Activity: Clearing, Site Preparation, and Construction

Regulatory Basis: Permit Requirements

Description: General avoidance measures and best management practices apply throughout the Project to minimize impacts to wildlife resources in general. Minimizing impacts to all wildlife and wildlife habitat supports intact habitat systems which in turn support threatened and endangered species. These measures are also important to meeting the Project's wetland and stormwater permitting requirements. Construction Maps will include indicators of known and potential wildlife habitat and should be consulted in concert with the general BMPs and other protection measures.

General BMPs to Minimize Wildlife/Wildlife Habitat Impacts

- Limit removal of vegetation to that necessary for construction of the project; this will leave associated wildlife habitat as intact as possible
- Adhere to the General BMPs to Minimize Vegetation Impacts (Section 2.3, below)
- Adhere to General Vegetation Restoration BMPs (Section 2.3, below)
- Adhere to Erosion Prevention and Sediment Control Plans and BMPs to prevent the degradation of wildlife habitat in areas adjacent to and downstream of work areas
- Utilize wildlife friendly erosion control where possible to reduce the risk of entrapment
- Diligently sweep work areas for rare and other species prior to establishing work areas and utilize exclusion techniques to reduce re-entry by previously removed species

Active Bald Eagle Nests

Restriction Dates: March 1 - July 31

Restricted Activity: Clearing, Site Preparation, and Construction within Nest Buffer

Regulatory Basis: Federal Migratory Bird Treaty Act; State Endangered Species Act – Threatened species

Description: As of Spring 2017 there are no known active bald eagle nests within ¼ mile of the project area. Prior to initiating work during the nesting season, a survey will be conducted for active nests within or adjacent to the ROW. If there is a break in work during the early portion of the nesting season (March 1- April 15), a repeat survey may be required before initiating the next stage of work.

Per the USFWS National Bald Eagle Management Guidelines, no work shall be done within 1/4 mile of an active bald eagle nest from March 1st to July 31st. However, adjustments to this recommended buffer may be negotiated with regulating agencies, based on the conditions of the habitat surrounding the nest, level of disturbance to which nesting eagles may already be habituated, and the nature, timing, and duration of the activities that will disturb the nest. Note that blasting may require a larger buffer distance. Depending on when nesting is initiated, the restriction dates may also be adjusted. The fledglings of early nesters may be done using the nest before July 31. Disturbance considerations are not required for inactive nests; however, inactive nests may not be removed without agency approval.

Active Raptor Nests

Restriction Dates: Varies by Species, see Table 1

Restricted Activity: Clearing, Site Preparation, and Construction within Nest Buffer

Regulatory Basis: Federal Migratory Bird Treaty Act

Description: There are no known active raptor nests within the Right-of Way. Prior to initiating work during the nesting season, a survey will be conducted for active nests. If there is a break in work during the nesting season, a repeat survey may be required before initiating the next stage of work.

Nesting season dates for raptor species that nest in New Hampshire are given in Table 1. A suitable buffer distance to protect active nests from disturbance depends on the types of intervening features between the nest; the location, nature, timing, and duration of the disturbing activity; and the level of disturbance that the nest currently experiences to which the resident nesting birds may be habituated. Appropriate buffers distances for individual nests subject to disturbance from clearing, site preparation, or construction will be negotiated with the regulatory agencies. The nesting season dates are guidelines, and should be confirmed with site-specific observations as needed. Note that while disturbance considerations are not required for inactive nests, they may not be removed without agency approval.

Table 1. Raptor species nesting dates and nest buffer zones*

Species	Nesting Season Dates	Buffer Distance
Osprey	April 15 – August 15	0.25 miles
Sharp-shinned hawk	April 15 – July 25	0.25 miles
Cooper’s hawk	April 1 – June 30	0.25 miles
Red-shouldered hawk	April 1 - June 25	0.25 miles
Broad-winged hawk	May 1 – July 30	0.25 miles
Red-tail hawk	March 15 – July 15	0.25 miles
American kestrel	April 1 – July 25	0.15 miles

*Based on literature reports

Northern Long-eared Bat

Restriction Dates: June 1 – July 31

Restricted Activity: Clearing (Cutting and felling of trees 3 inch dbh or larger)

Regulatory Basis: Federal Endangered Species Act – Threatened Species; State Endangered Species Act – Threatened Species

Description: The tree clearing standards put forth in the February 16, 2016 final 4(d) rule pertaining to the northern long-eared bat (NLEB) will be followed. To avoid take, based on this directive, no trees can be cleared within ¼ mile of known, occupied hibernacula at any time of the year, or within 150 feet of a known, occupied maternity roost during the June 1 – July 31

pup season. There are no known, occupied hibernacula or maternity roost trees within the applicable radii of the Project.

Based on U.S. Army Corps of Engineers (Corps) permit conditions associated with previous similar projects, Eversource is planning to proactively conduct acoustic monitoring during the 2017 NLEB survey window which runs from May 15 through August 15. The final 4(d) rule does not require a project proponent to identify either roost trees or hibernacula within the project area, only to adhere to the recommended cutting restrictions if those features are already known to be present, based on agency held records.

If NLEBs are identified during a survey, then TOY cutting restrictions may be required in locations where NLEB are detected.

Northern Black Racer

Restriction Dates: October 15 - April 30 (known hibernacula), April 15 through October 30 (general habitat)

Restricted Activity: Clearing, Site Preparation, and Construction

Regulatory Basis: State Endangered Species Act – Threatened Species

Description: Hibernacula - From October 15 through April 30 when racers may be entering, using, or exiting their hibernacula, no ground disturbing activities can take place in any location known by NHFG to host a hibernaculum. Surveys to date have not identified hibernacula in the Project area.

General Habitat - During the active season from April 15 through October 30, impacts to all species of snakes will be minimized by searching areas about to be impacted by clearing or site preparation for snakes, and removing them to a safe, suitable location close to their point of capture. Snake searches and removal will be conducted by the Environmental Monitor. Construction areas that are cleared of snakes must be fenced to prevent (re)entry by snakes or searched daily to find and remove snakes as needed during construction. The preferred approach will be determined by the environmental monitor, based on how long construction activities will last in a certain area. Silt fencing can be used to exclude snakes, but fencing products specifically designed to exclude reptiles from construction zones are also commercially available and are designed for ease of installation and reuse. If fencing is used, it will be removed as soon as construction is complete and snakes can safely enter the area.

For black racers, BMPs also include contractor training on recognizing this species and taking the appropriate actions to protect them. All personnel must understand and implement the appropriate protective actions and notifications.

Blanding's and Spotted Turtle

Restriction Dates: April 15 through October 15, action varies by resource

Restricted Activity: Clearing, Site Preparation, and Construction

Regulatory Basis: State Endangered Species Act – Endangered Species/Threatened Species

Description:

Minimizing impacts to Blanding's and spotted turtles requires 1) minimizing the extent of in-water work during all seasons, 2) avoiding wetland impacts to the extent practicable in all seasons, 3) avoiding crushing turtles in wetlands and uplands during the April 15 – October 15 active season, and 4) avoiding impacts to nesting habitat from May 25 through October 15. Upland work conducted between October 15 and April 15 is unlikely to impact turtles as they are restricted to their wetland hibernacula during this part of the year. Blanding's turtles generally overwinter in large open water wetlands (marshes, ponds), while spotted turtles generally use wetlands with smaller deep water areas. Actions for each habitat type are described below.

Wetlands, including Ponds: Impacts to spotted and Blanding's turtles in wetlands will be minimized by avoiding and minimizing impacts to open water and mucky substrates in all seasons to the greatest extent practicable. During the active season for turtles, impacts will be minimized by searching woody and grassy wetland vegetation within the construction zone for turtles prior to clearing and site preparation, and removing them to a safe, suitable location close to their point of capture. Construction areas that are cleared of turtles must be fenced to prevent (re)entry by turtles or searched daily to find and remove turtles as needed during construction. The preferred approach may be based on how long construction activities will last in a certain area. If construction mats are used to cross an expanse of open water, the mats will be stacked in such a manner as to create underwater gaps that allow passage of aquatic animals, such as turtles. During the hibernation period, no turtle searches will be conducted as the likelihood of finding hibernating turtles is low, and there is no information about how to identify a suitable alternate location for hibernation.

Uplands: A search of upland vegetation in the proposed active construction area will be required in all ROW areas that are within 3,280 ft (0.6 miles) of a wetland suitable for spotted and Blanding's turtles as determined by the Environmental Monitor. Any turtle found will be moved to a safe, suitable location close to their point of capture prior to clearing or site preparation activity. Qualified, trained personnel (the Environmental Monitor) will search for, and move, turtles as needed. Construction areas that are cleared of turtles must be fenced to prevent (re)entry by turtles or searched daily to find and remove turtles as needed during construction. The preferred approach may be based on how long construction activities will last in a certain area.

Nesting Habitat: Habitat reviews to date have not identified likely nesting areas. If any are identified, symbolic fencing placed around the areas during the nesting season to keep all work activities from encroaching. Symbolic fencing will be designed to let turtles access these areas freely. If potential nesting habitat is part of an access road or construction pad, it will be searched for turtles prior to initiating construction activities then fenced to keep turtles out during construction. Fencing will be removed as soon as construction is complete and turtles can safely enter the area. Silt fencing can be used to exclude turtles, but fencing products specifically designed to exclude turtles from construction zones are also commercially available

and are designed for ease of installation and reuse. If fencing is used, it will be removed as soon as active construction is complete and turtles can safely enter the area.

For spotted and Blanding's turtles, BMPs also include contractor training on recognizing these species and taking the appropriate actions to protect them. All personnel must understand and implement the appropriate protective actions and notifications.

New England Cottontail

Restriction Dates: March 31 through June 21

Restricted Activity: Clearing

Regulatory Basis: State Endangered Species Act – Endangered Species/Threatened Species

Description: New England cottontail (NEC) currently are not known to occur in the SRP area, but the NHFG is actively managing several sites within and near the ROW for this species. In locations identified as NEC habitat management areas, efforts will be made to minimize the amount of time that the ROW will be devoid of the brushy cover that NECs require. To the extent practicable, clear vegetation from March 31 – June 21, or as otherwise directed by NHFG given the site specific considerations at these locations, by hand cutting or using a “brontosaurus” or similar equipment, and leave stumps and root systems in place. These practices will allow ample time during the growing season for woody species to re-sprout and provide necessary cover.

2.2 Fisheries

Little Bay

Restriction Dates: February 1 – August 31

Restricted Activity: Construction (submarine cable installation)

Regulatory Basis: Federal Endangered Species Act; State Endangered Species Act

Description: The construction window for submarine cable installation is as follows: route clearing and preparation between August 1 and September 1; cable removal between September 1 and 15; installation of new cable via jet plow and handjetting between September 15 and December 31, which was identified as the best window to avoid or minimize impacts to many animals, eelgrass, and summer recreation. The DES prescribed dredge window is between November 15 and March 15, but this timeframe is not feasible for the SRP because the cable cannot be installed in freezing temperatures due to the difficulty in cable handling and warranty risks. Each of the three jet plow cable installations will occur within an estimated 13-hour period and result in a mobile, ephemeral plume of suspended sediments that is expected to dissipate approximately 2 hours after the jet plow pass is completed. There will be approximately a week between each cable installation. All practicable measures will be taken to minimize sediment disturbance and suspension in the water column. These will include: manipulating the jet plow speed and water pressure to maintain minimum sediment suspension in different substrate types within the proposed tidal constraints; maintaining silt curtains around the entire hand jetting area on the west shore, and as far seaward as effective

on the east shore; maintaining erosion and scour protection in the salt marsh work areas during construction and after restoration; and maintaining on-shore erosion controls during construction to avoid sediment entering the bay.

Table 2. Seasons in which protected fish, diadromous fish, and Essential Fish Habitat species are likely to be found Little Bay. Shading indicates species and seasons that will be affected by the SRP Fall and Winter work window in Little Bay.

Species	Designation*	Life Stage	Spring ⁺	Summer ⁺	Fall ⁺	Winter ⁺
Protected Species						
Shortnose Sturgeon	E,E - extirpated	Adults				
Atlantic Sturgeon	T	Adults & juveniles				
American Eel	SC-A1	Juveniles	X			
		Adults	X	X	X	X
Diadromous Fish						
Alewife (Little Bay)		Juveniles		X	X	
		Adults	X			
Blueback Herring (Oyster River)	SC-A1	Juveniles	X	X	X	
		Adults	X			
American Shad	SC-A1	Juveniles			X	
		Adults	X	X		
Rainbow Smelt (Little Bay)		Juveniles		X	X	X
		Adults	X			
Sea Lamprey (Little Bay)		Juveniles	X			X
		Adults	X			
Essential Fish Habitat						
Atlantic Cod		Eggs	X		X	X

Species	Designation*	Life Stage	Spring ⁺	Summer ⁺	Fall ⁺	Winter ⁺
Atlantic Halibut		Eggs	X		X	X
		Spawning Adults	X		X	X
Bluefish		Juveniles		X	X	
		Adults			X	
Pollock		Larvae	X		X	X
White Hake		Eggs		X		
		Juveniles	X	X	X	
Windowpane Flounder		Eggs	X	X	X	X
		Larvae	X	X	X	X
		Spawning Adults	X	X	X	X
Winter Flounder		Eggs	X			X
		Larvae	X			
		Spawning Adults	X			X
Yellowtail Flounder		Larvae	X			

*Protected species designations:

E,E – NH Endangered, Federally Endangered

T – NH Threatened

SC – NH Species of Special Concern – A1 indicates species is Near-Threatened and susceptible to further decline; B indicates a Responsibility Species, with most of the population existing in NH.

⁺Spring = Mar-May, Summer = Jun-Aug, Fall = Sep-Nov, Winter = Dec-Feb

Fresh Water

Restriction Dates: None

Restricted Activity: Clearing

Regulatory Basis: State Endangered Species Act – Species of Special Concern

Description: Fish species in freshwater streams, such as the Oyster River and the perennial streams within the SRP corridor have the potential to be affected by habitat changes from clearing and site preparation. No direct impacts to the Oyster River or Longmarsh Brook are proposed, which are known to support the swamp darter and banded sunfish, respectively (both State Species of Special Concern), as well as diadromous fish (see Table 3). Clearing along the Oyster River and Longmarsh Brook will be minimized where practicable, and conducted by hand with climbing crews when unavoidable, with the purpose of minimizing disturbance to the stream banks and associated vegetation. American eel is also known to occur on LaRoche Brook, where temporary bridges are proposed to avoid stream impacts and allow unimpeded fish passage. The temporary bridge supports will be placed as far from the stream banks as possible to avoid bank disturbance. Shrubs and herbaceous vegetation plus root systems of cut trees will be left in place to further minimize stream bank disturbance along all streams where practicable.

Table 3. Seasons in which protected fish species and diadromous fish are likely to be found in freshwater habitats in the SRP area. Shading indicates species and seasons that will be affected by the SRP work.

Species	Designation*	Life Stage	Spring*	Summer*	Fall*	Winter*
Protected Species						
Banded Sunfish	SC- A1B		X	X	X	X
Swamp Darter	SC-A1	Adults	X	X	X	X
Diadromous Fish						
Alewife (Oyster River)	SC-A1	Juveniles	X	X	X	
		Adults	X			
American Eel	SC-A1	Adults	X	X	X	
Blueback Herring (Oyster River)	SC-A1	Juveniles	X	X	X	
		Adults	X			
American Shad	SC-A1	Adults	X	X		
Rainbow Smelt (Oyster River)	SC-A1	Adults	X			
Sea Lamprey (Oyster River)	SC-A1	Adults	X			

*Protected species designations:

E,E – NH Endangered, Federally Endangered

T – NH Threatened

SC – NH Species of Special Concern – A1 indicates species is Near-Threatened and susceptible to further decline; B indicates a Responsibility Species, with most of the population existing in NH.

+ Spring = Mar-May, Summer = Jun-Aug, Fall = Sep-Nov, Winter = Dec-Feb

2.3 Botanical Resources

General Avoidance Measures

Restriction Dates: Follow these recommendations at all times

Restricted Activity: Clearing, Site Preparation, and Construction

Regulatory Basis: Permit Requirements

Description: General avoidance measures and best management practices apply throughout the Project to minimize impacts to botanical resources in general. Minimizing impacts to all plants and plant communities provides intact habitat systems to support threatened and endangered plants. These measures are also central to meeting the Project's wetland and stormwater permitting requirements.

General BMPs to Minimize Vegetation Impacts

- Limit removal of vegetation to that necessary for construction of the project.
- Limit tree clearing to the minimum required width to meet safety clearances, leave root systems in place, except over underground installations or where other earthwork must be conducted. Leave herbaceous and shrub vegetation intact wherever practicable.
- Where practicable, fell trees within the ROW to minimize the potential for off-ROW vegetation damage.
- Maintain vegetation along stream banks and within wetlands to the extent practicable.
- Control the spread of invasive plants:
 - Environmental Monitor will identify existing invasive species in the work area.
 - Train construction contractors to identify common invasive plant species.
 - Perform regular inspection and cleaning of construction equipment and vehicles on the right-of-way as appropriate where invasive species are present.
 - If invasive species are cut due to construction activity, cut when dormant or prior to seed set, and dispose of in a manner and location that precludes spread.
 - Use soil from local sources. To the extent possible, match soil texture with soil texture found in impacted habitat. Any soil fill or topsoil used will be inspected at the source and be certified as weed free by the Environmental Monitor before being brought on site.

- Use certified weed and invasive-free straw bales for erosion and sediment control.
- Re-vegetate disturbed areas quickly using seed mixes that are devoid of invasive species.
- Follow erosion control BMPs during construction. Sediment and erosion control plans will be developed that specify the types of BMPs necessary. Depending on the site, BMPs may include installation of silt fence, straw wattles, mulch/stump grinding berms, straw bales, or check dams, and covering bare soils with mulch, blown straw, bonded fiber matrix or fiber rolls to protect drainage ways and streams from sediment runoff.
- Use BMPs for minimizing soil rutting and compaction.

General Vegetation Restoration BMPs

- Revegetate disturbed areas in a timely manner once construction is complete in specific areas.
- When restoring impact areas without RTE plant species, use approved, native seed mixes only. Seed mix should be selected based on conditions (e.g., upland vs wetland) and should contain common native species associated with the impacted habitat.
- Perform post-construction inspection or monitoring in restored habitats for a period of two years following completion of construction activities in that location.

Eelgrass (*Zostera marina*)

- Conduct a field survey for eelgrass the summer before construction in a band approximately 500 feet to either side of the cable route.
- Review eelgrass mapping efforts since 2015 to evaluate changes in distribution in the vicinity of the project.
- Conduct cable installation to minimize suspended sediments (See Section 2.2 Fisheries, Little Bay section)

Endangered Plants and Exemplary Communities

Restriction Dates: Clear/construct in winter, over snow and frozen ground to extent practicable

Restricted Activity: Clearing, Site Preparation, and Construction

Regulatory Basis: State Endangered Species Act – Endangered Species /Exemplary Communities

Description: In addition to the general avoidance measures listed above, the following practices will be instituted to avoid impacts to rare species and communities wherever practicable.

General avoidance measures

- A contractor training program will be developed prior to construction activities to familiarize the crews with the locations, species and habitats that will require special

consideration. This will be the responsibility of the Environmental Monitor or a qualified botanist.

- The Environmental Monitor will discuss threatened and endangered plant issues at the morning tailboard meetings with Contractors for work taking place in sensitive areas.
- Clear and construct in sensitive plant locations when the ground is frozen and snow cover is present, to the extent practicable.
- If construction takes place when the ground is not frozen, use point-load reducing matting to cover the ground in any area of perennial RTE plants to minimize impacts.

Crested Sedge (*Carex cristatella*)

- Prior to construction, locations of known crested sedge will be resurveyed and flagged with coded flagging by a qualified botanist.
- Fence any known sensitive areas adjacent to impact areas as needed to prevent impacts beyond the work zone, and install generic caution signs along construction access roads to mark areas of resource sensitivity.
- If project constraints require construction to be performed during the growing season, perform work after the species has set seed, to the extent practicable.
- Approximately 60 square feet are currently anticipated to be temporarily impacted with an access road. Place access road on raised timber mats to minimize ground compaction.
- At the conclusion of construction, restore the native topsoil that was present prior to construction.
- Allow crested sedge location to reseed naturally without seed mix, unless directed by NH NHB to collect seed from adjacent (unimpacted plants) for use during restoration.

Salt Marsh

- All work in salt marshes, including impacts and restoration, will be conducted according to an approved Salt Marsh Restoration Plan and overseen by an Environmental Monitor
- Prior to construction, salt marsh limits and location of permitted work areas will be flagged with coded flagging by a qualified botanist.
- Fence any known sensitive areas adjacent to permitted work areas as needed to prevent impacts beyond the work zone, and install generic caution signs along construction access roads to mark areas of resource sensitivity.

Attachment 1. Summary Table by Species

Species	Known Presence in Project Area?	TOY Restrictions	Restricted Activity	Avoidance & BMPs
Wildlife Species				
Bald Eagles	No known nests in or within ¼ mile of project	March 1 – July 31	Clearing, Site Prep., Construction	Survey for active nests prior to Project initiation (clearing, site prep, construction); restrict project activities near nests as applicable
Other Raptors	No known nests in or within ¼ mile of project	Generally April – July; May and August depending on species	Clearing, Site Prep., Construction	Survey for active nests prior to Project initiation (clearing, site prep, construction); restrict project activities near nests as applicable
Northern Long-eared Bat (NLEB)	No known, occupied hibernacula or maternity roost trees	June 1 – July 31	Clearing	Acoustic surveys planning summer 2017; tree clearing timing where detected; clearing planned for fall/winter
Northern Black Racer	No known hibernacula; likely present	Hibernacula: Oct 15 – Apr 30 General: April 15 – Oct 30	Clearing, Site Prep., Construction	Site searches prior to active construction and site prep activity; site searches and removal as needed during construction
Blanding’s & Spotted Turtles	Known in proximity to project; habitat present	April 15 – October 15	Clearing, Site Prep., Construction	Minimizing in-wetland work; avoiding/minimizing wetland impacts; active construction site searches near habitat; site review for nesting areas and avoidance

Species	Known Presence in Project Area?	TOY Restrictions	Restricted Activity	Avoidance & BMPs
New England Cottontail (NEC)	No known populations but habitat being managed for NEC	March 31 – June 21	Clearing	Minimize removal of brushy growth; hand cut or “mow” with “brontosaurus”-type equipment; leave stumps and roots for regrowth
Fisheries				
Little Bay Species	Many confirmed or assumed	Feb 1 – Aug 31	Underwater cable construction; cable removal	Timed construction window Sept 1 – Dec 31 to minimize impacts; method allows for rapid installation; tide-work restrictions during work where applicable
Freshwater Fish/Species	Assumed in Oyster River and Longmarsh/ LaRoche Brooks	None	Clearing	Minimize clearing impacts near subject waters; direct impacts to/over Oyster River and Longmarsh Brook avoided; temporary bridges proposed for LaRoche Brook.
Botanical Resources				
Crested sedge (<i>Carex cristatella</i>)	Yes in specific patches in Durham ROW area	Growing Season	Clearing, Site Prep., Construction	Resurvey populations/patches; identify with fencing; avoid and use winter construction/clearing where possible; timber mats where unavoidable for access roads; natural reseeding and monitoring
Salt Marsh	Small patches near Durham/ Newington shores of Little Bay	Yes	Underground/underwater cable construction	Adhere to approved Salt Marsh Restoration Plan

Attachment 2: Summarized/Bulleted Notes

Active Bald Eagle Nests

- No work shall be done within 1/4 mile of an active bald eagle nest from March 1st to July 31st.
- Changes to the buffer size and/or restriction dates must be negotiated with regulating agencies.
- Disturbance considerations are not required for inactive nests; however, inactive nests may not be removed without agency approval.
- Prior to initiating work during the nesting season, a survey for active nests must be conducted. If there is a break in work during the nesting season, a repeat survey may be required before initiating the next stage of work.

Other Active Raptor Nests

- Approximate nesting season dates for raptor species that nest in New Hampshire are given in Table 1.
- No work shall be done within the buffer of an active raptor nest, for the duration of the active period.
- Buffer size and/or the duration of the restriction period for individual nests must be negotiated with New Hampshire Fish and Game.
- Buffers are not required for inactive nests; however, inactive nests may not be removed without agency approval.
- Prior to initiating work during the nesting season, a survey for active nests must be conducted. If there is a break in work during the nesting season, a repeat survey may be required before initiating the next stage of work.

Table 1. Raptor species approximate nesting dates

Species	Nesting Season Dates
Osprey	April 15 – August 15
Sharp-shinned hawk	April 15 – July 25
Cooper's hawk	April 1 – June 30
Red-shouldered hawk	April 1 - June 25
Broad-winged hawk	May 1 – July 30
Red-tail hawk	March 15 – July 15
American kestrel	April 1 – July 25

Northern Long-eared Bat (NLEB)

- In known northern long-eared bat locations, no tree cutting shall occur during the active season, from April 15th to September 30th.

Northern Black Racer (Snake)

- In snake habitat, install temporary fencing to ensure that all disturbance is confined to the construction footprint. Remove fencing when construction is complete.
- From October 15 through April 30 when racers or hognose snakes may be entering, using, or exiting their hibernacula, no ground disturbing activities can take place in any location known by NHFG to host a hibernaculum.
- From April 15 through October 30, the Environmental Monitor will search areas about to be impacted by clearing or site preparation for snakes.
- All snakes found will be removed to a safe, suitable location close to their point of capture.
- Construction areas that are cleared of snakes must be fenced to prevent (re)entry by snakes or searched daily to find and remove snakes as needed during construction.
- Properly installed fencing can be used to exclude snakes, or fencing products specifically designed to exclude reptiles from construction zones are also commercially available and are designed for ease of installation and reuse.
- If exclusion fencing is used, it must be removed as soon as construction is complete and snakes can safely enter the area.
- If foundation holes for structures are excavated and will not be immediately filled with concrete, the edge of the covering placed over the open hole should be covered with a layer of silt fence and soil flush to the ground around the edges, to prevent entry by snakes.
- Contractor training on recognizing protected snakes and taking the appropriate actions to protect them is required. All personnel must understand and implement the appropriate protective actions and notifications.

Blanding's and Spotted Turtles

- In turtle habitat, install temporary fencing to ensure that all disturbance is confined to the construction footprint. Remove fencing when construction is complete.
- Avoid and minimize impacts to open water and mucky substrates in all seasons to the greatest extent practicable.
- Avoid and minimize impacts to streams in all seasons to the greatest extent practicable.
- April 15 – October 15, the Environmental Monitor will search riparian zones and uplands within 1640 ft (0.3 miles) of suitable streams for wood turtles prior to clearing and site preparation.

- April 15 – October 15 the Environmental Monitor will search woody and grassy wetland vegetation within the construction zone for Blanding's and spotted turtles prior to clearing and site preparation.
- All turtles found will be removed to a safe, suitable location close to their point of capture.
- Construction areas that are searched and cleared of turtles must be fenced to prevent (re)entry by turtles or searched daily during construction to find and remove turtles as needed.
- Potential turtle nesting habitat in the work area will be identified by the environmental monitor prior to any work occurring. If potential nesting habitat is part of an access road or construction pad, it will be fenced prior to May 25 to keep turtles out and prevent eggs from being laid and subsequently crushed during the work period.
- Properly installed silt fencing or fencing products specifically designed to exclude reptiles from construction zones can be used as exclusion fencing.
- All fencing will be removed as soon as construction is complete and turtles can safely enter the area. Contractor training on recognizing protected turtles and taking the appropriate actions to protect them is required. All personnel must understand and implement the appropriate protective actions and notifications.

New England Cottontail (NEC) (Rabbit)

- NEC have potential to utilize dense shrubby ROW areas throughout the ROW
- Minimize clearing of dense, shrubby cover between March 31 and June 21 where possible
- Minimize removal of brushy, dense woody growth and hand cut or mow (using equipment similar to "brontosaurus") in a manner that leaves stumps, shoots and root systems intact, especially in areas being managed for potential NEC habitat.

Little Bay (Fisheries)

- Restrict underwater cable installation to construction window of September 1 through December 31
- Site preparation may occur in August but will have minor environmental impact.
- Adhere to tidal restrictions for various types of underwater line installation methods: including jetplowing and hand-jetting to minimize collateral disturbances and sedimentation

Freshwater (Fisheries)

- Minimize clearing of bank stabilizing and shading trees near Oyster River, Longmarsh Brook and LaRoche Brook

- Utilize low impact tree removal methods such as hand cutting by climbing crews to reduce the need for clearing equipment near these waters
- Generally: retain as much native woody stream/river side vegetation as possible
- Temporarily bridge all streams and brooks except those where underground cable installation is proposed
- Install erosion control measures prior to installing temporary bridges; maintain all erosion control measures as needed and according to applicable BMPs and only remove erosion control measures when temporarily disturbed areas are properly restored and/or stabilized

RTE Sedge Species (Durham)

- Avoid direct impacts to known populations of sedge
- Resurvey and clearly mark limits of given populations of species
- Conduct work in dormant (winter) or frozen ground conditions where possible
- Utilize temporary timber matting where access road impacts are unavoidable
- Allow natural reseeding following completion of construction in affected areas

Salt Marsh (Durham/Newington)

- Adhere to approved Salt Marsh Restoration Plan