### 7.0 WILDLIFE AND FISHERIES

#### 7.1 Introduction

The purpose of this section is to describe the existing wildlife and fishery resources associated with the NECEC, and to discuss actions that CMP will implement to protect wildlife and fish and their habitats. For a complete description of the various components of the NECEC transmission line corridor and associated substations, see **Section 1**, Development Description. CMP conducted resource surveys and verifications of natural resources surveys previously conducted by CMP, in 2015, 2016, and 2017. To identify existing wildlife and fishery resources, field crews documented wildlife while conducting field surveys and verifications. CMP also conducted wildlife and fishery database searches and agency consultation with the MDIFW and the United States Fish and Wildlife Service ("USFWS"). The results of these efforts are summarized below. Maps of identified habitat resources are in **Attachment 2** – Natural Resource Maps, of the Site Law.

### 7.2 Agency Correspondence

On behalf of CMP, Burns & McDonnell contacted state and federal natural resource agencies to obtain existing data on wildlife and fisheries resources near the NECEC Project components. Specifically, resource agencies were consulted regarding the presence of deer wintering areas ("DWAs"); inland waterfowl and wading bird habitat ("TWWH"); federal and state listed rare, threatened, and endangered ("RTE") wildlife and fish species (collectively, "T&E species"); and any other species or sensitive habitats of special concern.

Data requests were sent to state and federal resource agencies including the USFWS, the Maine Natural Areas Program ("MNAP"), and MDIFW. In addition, Burns & McDonnell consulted several times with USFWS, MDIFW central office and regional biologists, and MNAP, and participated in consultation meetings held jointly with multiple resource agencies. Copies of this correspondence and meeting notes are located in **Exhibit 7-1** of this Section.

### 7.3 Terrestrial Resources

## 7.3.1 Cover Type and Wildlife Habitat

The composition, structure, and distribution of plant communities in a given area constitute a large part of the cover and food components of wildlife habitat. As a result, areas with similar vegetative characteristics tend to have similar assemblages of wildlife species. Some wildlife species have very specific habitat requirements and are found in only a few habitats while other species have broader habitat requirements and are therefore more widespread. This section briefly describes the major wildlife habitat types in the vicinity of the NECEC and lists

representative wildlife species that may occur in these habitats. Determination of the various cover types was supplemented by resource surveys in 2015, 2016 and 2017.

Natural cover types, such as upland forests and wetlands, were classified based on MNAP's *Natural Landscapes* of *Maine: A Classification of Ecosystems and Natural Communities - Draft* (MNAP 2004). The cover types within and adjacent to the NECEC transmission line corridor can be classified into four broad categories: upland forested (coniferous, hardwood, and mixed), early-successional (shrub-lands and herbaceous), wetland (forested, scrub-shrub, and emergent), and developed (residential, commercial, and industrial). Descriptions of each of the major cover types and commonly found species identified within and adjacent to the NECEC transmission line corridor are provided in the subsections below.

## 7.3.1.1 Upland Forest

The upland forest cover type is assumed to occur on lands that have a tree-crown areal density of at least 10 percent or more and are stocked with trees capable of producing timber or wood products (Anderson et al. 1976). The majority of the lands adjacent to the NECEC transmission line corridors consist of the upland forest cover type. The upland forest areas found in the vicinity of the transmission line corridor generally consist of the following forest region types:

- Central Hardwoods-Hemlock-White Pine
- Transition Hardwoods-White Pine
- Northern Hardwoods
- Spruce-Fir
- Northern Hardwoods-Spruce

Most of these forest region types transition into one another. In general, the conifer forest communities are typically found in the lowlands and northern hardwoods communities are found on mid-elevation hillsides or ridges.

Amphibian species commonly found in the forested habitat cover type include the redback salamander (*Plethodon cinereus*), spotted salamander (*Ambystoma maculatum*), wood frog (*Rana sylvatica*), gray tree frog (*Hyla versicolor*), and American toad (*Bufo americanus*). Reptile species that can occur include the northern red belly snake (*Storeria occipitomaculata*) and eastern garter snake (*Thamnophis sirtalis*).

Bird species represented in the forested habitat include ground or shrub nesting species such as the ruffed grouse (*Bonasa umbellus*), winter wren (*Troglodytes troglodytes*), Swainson's thrush (*Catharus ustulatus*), ovenbird (*Seiurus aurocapillus*), and Canada warbler (*Wilsonia canadensis*). Cavity nesting birds typically include the

black-capped chickadee (*Parus atricapillus*), white-breasted nuthatch (*Sitta carolinensis*), and hairy woodpecker (*Picoides villosus*). Canopy/mid-story nesting birds include the golden-crowned kinglet (*Regulus satrapa*), blueheaded vireo (*Vireo solitarius*), American redstart (*Setophaga ruticilla*), and the black-throated green warbler (*Dendroica virens*). Raptor species encountered include the barred owl (*Strix varia*), broad-winged hawk (*Buteo platypterus*), and sharp-shinned hawk (*Accipiter striatus*). Other avian species frequently encountered in forests include the raven (*Corvus corax*), red-breasted nuthatch (*Sitta canadensis*), bay-breasted warbler (*Dendroica castanea*), red crossbill (*Loxia curvirostra*), and evening grosbeak (*Coccothraustes vespertinus*).

The white-tailed deer (*Odocoileus virginianus*), moose (*Alces alces*), black bear (*Ursus americanus*), and fisher (*Martes pennanti*) are common mammal species that use this habitat type. Other representative mammal species include southern red-backed vole (*Clethrionomys gapperi*), deer mouse (*Peromyscus maniculatus*), red squirrel (*Tamiasciurus hudsonicus*), porcupine (*Erethizon dorsatum*), and snowshoe hare (*Lepus americanus*).

### 7.3.1.2 Early Successional

This vegetative cover type classification includes areas in the early stages of transition from a cleared condition to a forested condition. These areas were typically mature forests prior to the trees being harvested. Included in this cover type are maintained utility transmission line corridors (Anderson et al. 1976). Typically, the vegetation composition and structure associated with this classification gradually changes over time due to natural succession. In the case of maintained transmission line corridors, the early-successional cover type is permanently maintained due to periodic removal of saplings within the transmission line corridor. Transmission line corridors generally range from herbaceous field to shrub-dominated cover. This is the cover type that will be maintained along the NECEC corridors.

Due to the dense herbaceous and shrub vegetation that is typically located in early-successional areas, ground nesting and shrub nesting species of birds are relatively common. During the 2015, 2016, and 2017 vernal pool and wetland surveys, herptile species ("herptiles") were also commonly encountered in this habitat type.

Bird species that use this cover type include the chestnut-sided warbler (*Dendroica pensylvanica*), Nashville warbler (*Vermivora ruficapilla*), common yellowthroat (*Geothlypis trichas*), song sparrow (*Melospiza melodia*), indigo bunting (*Passerina cyanea*), and the white- throated sparrow (*Zonotrichia albicollis*). The red-tailed hawk (*Buteo jamaicensis*) and American kestrel (*Falco sparverius*) are also commonly observed in these habitats. Herptile species that use this cover may include redback salamander, American toad, wood frog, and eastern garter snake.

Mammals frequently encountered in this cover type include edge-associated species such as the southern red-backed vole, meadow vole (*Microtus pennsylvanicus*), short-tailed shrew (*Blarina brevicauda*), ermine (*Mustela erminea*), and coyote (*Canis latrans*). White-tailed deer and moose also frequent these habitats for foraging and bedding opportunities.

#### 7.3.1.3 Wetlands

Many palustrine wetlands exist within the NECEC corridors. Predominately, these include the forested, scrubshrub, and emergent wetland cover types. Provided below is a general discussion of each of the major wetland types that have been mapped along the proposed route.

#### 7.3.1.3.1 Forested Wetlands

Forested wetlands are characterized by a dominance of woody vegetation that is at least six meters tall (Cowardin et al. 1979). Most of the forested wetlands in the vicinity of the NECEC transmission line corridors are classified as broad-leaved deciduous and/or needle-leaved evergreen forested wetlands. Most of the forested wetlands are located on the edges of the maintained transmission line corridors that are proposed for the NECEC Project.

Several mammal species utilize forested wetland habitat. Examples include moose, white-tailed deer, snowshoe hare, mink (*Mustela vison*), black bear, raccoon (*Procyon lotor*), bobcat (*Felis rufus*), beaver (*Castor canadensis*), and woodland jumping mouse (*Napaeozapus insignis*).

In addition, herptiles such as the wood frog, spotted salamander, blue-spotted salamander (*Ambystoma laterale*), northern spring peeper (*Pseudacris crucifer*), American toad, and eastern garter snake use forested wetland habitat for breeding, cover, and/or foraging. Bird species known to utilize forested wetland habitat include wood duck (*Aix sponsa*), pileated woodpecker (*Dryocopus pileatus*), northern waterthrush (*Seiurus noveboracensis*), northern parula warbler (*Parula americana*), and Canada warbler.

#### 7.3.1.3.2 Scrub-Shrub Wetlands

Scrub-shrub wetlands are characterized by a dominance of woody vegetation less than six meters tall (Cowardin et al. 1979). These areas are typically dominated by shrubs and young trees, but may also include older trees that are stunted due to environmental conditions. Scrub-shrub wetlands within the NECEC transmission line corridors occur primarily as the result of the routine operation and maintenance of the transmission facilities. Scrub-shrub wetlands are often associated with streams and areas of seasonal saturation and flooding.

Some scrub-shrub wetlands associated with small streams have historically been altered by beaver, and many are currently occupied by beaver (as documented through field investigations). Dams constructed by beavers raise water levels which can inundate roots and subsequently kill many of the shrubs. Many active beaver dams are eventually abandoned, resulting in deterioration of the dams and subsequent draining of the impoundments. Dewatered areas are rapidly colonized by grasses, sedges, herbs, and shrubs.

Another type of scrub-shrub wetland occurs along the larger streams traversed by the transmission line corridors. Rather than being influenced by beaver activity, these areas are maintained by annual springtime snowmelt runoff and inundations and/or groundwater discharge.

Also occurring within the NECEC transmission line corridors are scrub-shrub wetlands associated with peatland (primarily bogs and fens). The substrate is composed of sphagnum moss and species diversity of the plant community is typically limited by high acidity. As a result, the shrub layer is typically composed of only acid-tolerant shrubs and trees.

Most of the scrub-shrub wetlands within the proposed transmission line corridors are maintained in an early-successional stage through transmission line corridor vegetation management practices. Scrub-shrub wetlands are structurally similar to early-successional habitats. However, they generally have a greater diversity and abundance of wildlife species due to the seasonal presence of water. Scrub-shrub wetlands, especially those with inundated depressions, provide breeding habitat and cover for herptiles including wood frog, spotted and blue-spotted salamanders (*Ambystoma laterale*), American toad, gray tree frog, spring peeper, and eastern garter snake. Bird species known to inhabit these areas include woodcock (*Scolopax minor*), alder flycatcher (*Empidonax alnorum*), olive-sided flycatcher (*Contopus virens*), yellow warbler (*Dendroica petchia*), common yellowthroat, song sparrow, and red-winged blackbird (*Agelaius phoenicus*).

Small mammals are generally abundant in scrub-shrub wetlands due to the thick understory and ground cover. Mammal species that are common to this wetland type include beaver, muskrat (*Ondatra zibethicus*), mink, masked shrew (*Sorex cinereus*), water shrew (*Sorex palustris*), snowshoe hare, meadow vole, and southern redbacked vole. Other mammals that utilize that habitat type include moose, white-tailed deer, and raccoon. Insectivorous species such as masked shrew and water shrew are often abundant in bogs.

## 7.3.1.3.3 Emergent Wetlands

Emergent wetlands are characterized by a dominance of erect, rooted, herbaceous hydrophytes, excluding mosses and lichens (Cowardin et al. 1979). Emergent wetlands include areas commonly referred to as marshes and wet meadows. The NECEC corridors cross some areas that could be classified solely as emergent wetlands, however they are often integrated with scrub-shrub wetlands.

Beaver activity often results in the development of extensive emergent wetlands that form in flooded areas. Muskrat are also common in shallow and deepwater marshes and feed on the abundant emergent vegetation. Other mammals that utilize emergent wetland habitat include little brown myotis (*Myotis lucifugus*), raccoon, mink, and white-tailed deer. Herptiles common to emergent wetlands include northern spring peeper, pickerel frog (*Rana palustris*), green frog (*Rana clamitans*), eastern garter snake, and painted turtle (*Chrysemys picta*). Bird species that are frequently observed in emergent wetlands include great blue heron (*Ardea herodias*), American black duck (*Anas rubripes*), red-winged blackbird, tree swallow (*Tachycineta bicolor*), yellow warbler, and swamp sparrow (*Melospiza georgiana*).

### 7.3.1.4 Developed Areas- Residential, Commercial and Industrial

The majority of the land located along the NECEC route is undeveloped, however some developed areas do exist, particularly along the more southern portion of the transmission corridor. Residential is the most common type of development, followed by commercial and, to a much lesser degree, industrial. Commercial development occurs within most of the municipalities that are located adjacent to the proposed transmission line corridors; such development is generally associated with services for local communities.

Because vegetation composition and structural diversity is often reduced in these developed areas, only those species that are habitat-generalists or adapted to development tend to be present. Herptile species that may be found in these areas can include the eastern garter snake and American toad. The house sparrow (*Passer domesticus*), mourning dove (*Zenaida macroura*), American robin (*Turdus migratorius*), song sparrow, and black-capped chickadee (*Poecile atricapilla*) are frequently observed avian species. Mammalian species found in this cover type are typically habitat-generalists, and include the white-tailed deer, striped skunk (*Mephitis mephitis*), ground hog (*Marmota monax*), raccoon (*Procyon* lotor), red fox (*Vulpes vulpes*), and coyote.

## 7.3.2 Significant or Sensitive Wildlife Habitats

Significant and sensitive wildlife habitats are protected by both state and federal law. Burns & McDonnell consulted with the MDIFW and the USFWS to identify significant or sensitive wildlife habitats in or near the NECEC Project components. Discussion of the federal and state law and agency consultations follow.

The Endangered Species Act ("ESA") is the major federal law in this context that is relevant to the NECEC Project. The ESA's primary aim is the protection of wildlife habitat of T&E species. The USFWS and the National Oceanic and Atmospheric Administration ("NOAA") are the federal agencies that are responsible for administering the ESA. Typically, the USFWS is the lead agency in issues dealing with inland wildlife species and habitat, while NOAA often takes the lead with marine fish species and habitat.

Pursuant to state law, significant wildlife habitat in Maine is protected under the Natural Resources Protection Act ("NRPA"), 38 M.R. §§S. § 480-A et seq. The NRPA is administered by the MDEP. Additional state protection for wildlife habitat is provided by the Maine Endangered Species Act ("Maine ESA"), 12 M.R. §§S. § 12801 et seq., which is administered by the MDIFW.

The NRPA recognizes the statewide significance of natural resources in terms of educational, historical, and environmental value for present and future generations. The intent of the NRPA is to prevent any unreasonable impact, degradation, or destruction of protected natural resources, and to encourage their conservation. These habitats are identified by applicants and MDIFW and mapped by the MDIFW. The NRPA protects natural resources such as: coastal wetlands and sand dunes; freshwater wetlands; great ponds; rivers, streams and brooks; fragile mountain areas; and significant wildlife habitat. Significant wildlife habitat, as defined in the NRPA, 38 M.R.S. § 480-B(10), includes, in general:

- a. Habitats for state and federally listed T&E species;
- Mapped high and moderate value DWA and travel corridors, as defined by MDIFW and adopted by rule by MDEP;
- c. Mapped seabird nesting islands, as defined by MDIFW;
- d. Critical spawning and nursery areas for Atlantic salmon, as defined by the Atlantic Salmon Commission;
- e. Significant vernal pools;
- f. High and moderate value IWWH, including nesting and feeding areas; and
- g. Shorebird nesting, feeding, and staging areas.

The Maine ESA also protects habitat of state-listed T&E species. The Maine ESA gives authority to MDIFW to designate species as endangered or threatened; designate "essential habitat" for those listed species; develop guidelines for the protection of these species; and establish programs that are necessary for the conservation of any endangered or threatened species. These programs may include acquisition of land/habitat, propagation, live trapping, and/or transplantation. The statute prohibits the import, export, harassment, hunting, take, trapping, or

possession of state-listed species. MDIFW may allow an incidental take of state listed species if the take is incidental to, and not the purpose of, carrying out an otherwise lawful activity, the take will not impair the recovery of the species, and an Incidental Take Plan ("TTP") is approved by the Commissioner. The ITP must minimize the incidental taking of T&E species and must specify the activities that are sought to be authorized. The plan must include an analysis of potential alternatives, and specify measures to prevent, minimize, and mitigate for individual and cumulative effects that may reasonably be anticipated as a result of the activity (12 M.R.S. § 12808-A (2)).

Possible significant or sensitive habitats identified along the NECEC transmission line corridors and substations consist of four major categories of habitats/areas: Bald eagle nest sites, DWAs, IIWWH, and significant vernal pool habitat. Each of these significant or sensitive habitat types is further described below. Occurrences of these habitat types associated with the NECEC are also described below.

# 7.3.3 Bald Eagle Nest Sites

Bald eagles continue to thrive in Maine with over 600 nesting pairs. Maine's bald eagle population has seen annual increases of 8 percent each year since 1990, when Essential Habitat regulations were adopted (MDIFW 2004). Known nesting sites were previously designated as "Essential Habitat" and included an area within 0.25-mile of a nest.

The bald eagle was previously listed as a threatened species under the Maine ESA. Due to the successful recovery of the bald eagle population, effective December 5, 2009, the MDIFW adopted a rule deleting all previously designated Essential Habitats for bald eagles, as they have been removed from the State's Endangered and Threatened Species List by the Legislature and; as such, designated nest sites no longer meet the criteria for essential habitat. Bald eagles were also removed from the federal threatened species list on August 9, 2007, however the bald eagle continues to be protected from take under the Bald and Golden Eagle Protection Act.

Occurrence information on bald eagle nest locations was obtained from the USFWS and the MDIFW. Based on the information collected, neither the Fickett Road Substation, the Merrill Road Converter Station, nor any of the substation upgrade locations are located within 660 feet of any known bald eagle nest sites. One known bald eagle nest site is located within 660 feet of the proposed NECEC transmission line corridors. The nest, identified as 562A, is located within the corridor and adjacent to the Androscoggin River in Lewiston. Notes associated with the geospatial data indicate that surveys were most recently conducted in 2013 and the nest was not intact at that time. There is no clearing proposed in this location.

This nest site and the 660-foot zone around the nest is illustrated on the Natural Resources Maps developed for the NECEC, located in **Attachment 2** of the Site Law application.

### 7.3.4 Deer Wintering Areas

In Maine, the preferred winter cover for deer is found in stands of spruce, northern white cedar, and hemlock, which provide optimum cover and snow carrying capacity. These areas are critical for the survival of deer during the snowy cold winters of interior Maine.

MDIFW is responsible for identifying and protecting Deer Wintering Areas ("DWAs"). DWAs are identified by observation by MDIFW personnel, deer tracks, current or past browsing, deer pellet piles, and deer bedding sites (12 M.R.S. § 10107). The DWAs assessed by MDIFW are ranked as high, moderate, or low value based on evaluation of deer populations, shelter quality, browse availability, relationship to other DWAs, size, and access. Those DWAs that have been identified, but have not been evaluated, are classified as "indeterminate."

According to data provided by the MDIFW, a total of 21 DWAs are crossed by the NECEC transmission line corridor. All DWAs crossed by the Project are classified by the MDIFW as indeterminate in value, which means that they are recognized as candidate Significant Wildlife Habitat under the NRPA, but currently have no formal value rating. There are no DWAs impacted by the Merrill Road Converter Station or Fickett Road Substation. The table located in **Exhibit 7-2** provides component-specific information on DWAs intersected by NECEC corridors including their locations in the transmission line corridors, the municipalities where they occur, and their rankings. DWAs crossed by the NECEC corridors are illustrated on the Natural Resource Maps provided in **Attachment 2** of the Site Law application.

## 7.3.5 Inland Waterfowl and Wading Bird Habitats

Wading birds and waterfowl are a diverse assemblage of species which make significant, but not exclusive use of wetland habitats. MDIFW defines wading birds as herons, egrets, glossy ibis, bitterns, rails, coots, common moorhens, and sandhill cranes (MDIFW 2005b). Maine statute defines migratory waterfowl as "anatidae, or waterfowl, including brant, wild ducks, geese and swans" (12 M.R.S. § 10001(40), MDIFW 2005b).

Wading bird habitats consist of breeding, feeding, roosting, loafing, and migration stopover areas. Waterfowl habitats are divided behaviorally and seasonally into three categories: breeding habitats, migration and staging habitats, and wintering habitats (MDIFW 2005b). The MDIFW determination of Waterfowl and Wading Bird Habitat ("TWWH") is largely based on the existing Maine Wetland Inventory completed in 1973, with minor modifications. Modifications include: a system of combining or splitting certain wetlands; updates based on some field verification; and inclusion of a 250-foot buffer zone in high and moderate value IWWHs.

Occurrence information on IWWH was obtained from the MDIFW. Review of the data indicated that no IWWHs occur in the vicinity of the Merrill Road Converter Station or the Fickett Road Substation. However, there are 18 IWWHs located within the NECEC transmission line corridors. Two of these IWWHs are ranked as high value, 15 are ranked as moderate value, and one does not have a reported value. The table in **Exhibit 7-3** provides specific detail on IWWHs that are intersected by NECEC Project corridors, including their locations in relation to the relevant Project components, their value (rating) status, and MDIFW identification numbers. IWWHs intersected by the NECEC are illustrated on the Natural Resource Maps provided in **Attachment 2** of the Site Law application.

## 7.3.6 Significant Vernal Pools

During the spring months of 2015, 2016, and 2017, vernal pool field surveys were conducted along the NECEC components. The specific objectives of the vernal pool surveys were to:

- 1. Identify natural pools within the proposed transmission line corridor;
- 2. Determine if pools were being used by breeding amphibians;
- 3. Determine if any of the pools meet the definition of vernal pools under USACE guidance; and
- 4. Determine if any of the pools meet the necessary criteria for designation as significant vernal pool habitat in accordance with the NRPA Chapter 335.

A sampling protocol for the vernal pool mapping effort was prepared and updated in April 2017 (Exhibit 7-4). Information and procedures utilized for this protocol were consistent with current agency consensus and vernal pool assessment methods. The 2017 Resource Delineation Protocol included protocols for verifications of natural resource survey information previously collected by CMP. Natural resource verifications were performed in accordance with protocols developed in consultation with MDEP and USACE. Consistent with protocol requirements, all vernal pool field surveys were conducted in 2015, 2016, and 2017, during the timeframes recommended in Chapter 335, and under appropriate conditions for such survey efforts.

The USACE Maine Programmatic General Permit and Maine NRPA Chapter 335 use the same definition for vernal pools. The following definition and identification criteria were used to base the jurisdictional determination and assessment of significant habitat:<sup>8</sup>

• A vernal pool, also referred to as a seasonal forest pool, is a natural, temporary to semi-permanent body of water occurring in a shallow depression that typically fills during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet or outlet and no viable

<sup>&</sup>lt;sup>8</sup> Excerpt from Maine NRPA Chapter 335. For the full significant vernal pool habitat definition, please refer to the rule.

populations of predatory fish. A vernal pool may provide the primary breeding habitat for wood frogs, spotted salamanders, blue-spotted salamanders, and fairy shrimp, as well as valuable habitat for other plants and wildlife, including several rare, threatened, and endangered species. A vernal pool intentionally created for the purposes of compensatory mitigation is included in this definition (DEP Reg. 335.9.)

- Maine NRPA Chapter 335 significant vernal pool habitat identification criteria (DEP Reg. 335.9(B)):
  - 1. Abundance. Any one of or combination of the following species abundance levels, documented in any given year, determine the significance of a vernal pool habitat
    - Fairy shrimp presence in any life stage
    - Blue-spotted salamanders presence of 10 or more egg masses
    - Spotted salamanders presence of 20 or more egg masses
    - Wood frogs presence of 40 or more egg masses
  - Rarity. A pool that has documented use in any given year by a rare species or state-listed
    endangered or threatened species that commonly requires a vernal pool to complete a critical
    portion of its life history is part of a significant vernal pool habitat.

Using existing information and the sampling methodology described in the protocol, 641 areas within the vicinity of the NECEC transmission line corridors and substations were identified during the 2015, 2016, and 2017 sampling seasons as state and/or federally jurisdictional vernal pool habitats. Of the 641 vernal pool habitats identified, 66 were characterized as unnatural features that function as amphibian breeding areas ("ABAs"). To differentiate between vernal pools of natural origin and manmade pools, manmade pools were termed "amphibian breeding areas." These pools did not meet the NRPA definition of a vernal pool because they were manmade rather than natural pools, as defined in Chapter 335 of the NRPA. ABAs meet the federal vernal pool definition. Most of these areas were ruts made by ATVs and off-road vehicles ("ORVs") (mainly trucks), or were long, linear features created by construction equipment.

A total of 575 features were characterized as pools of natural origin (i.e., not manmade pools) and as such are recognized by both the MDEP and the ACOE as vernal pools. These vernal pools were determined to be "natural vernal pools" because they were of natural origin, but did not meet the remaining criteria required to qualify as "significant vernal pools" according to the NRPA definition of a significant vernal pool (i.e., egg mass numbers, fairy shrimp, and rare species).

<sup>&</sup>lt;sup>9</sup> "Within the vicinity of' means within 100 feet of the NECEC transmission line corridors and substations.

42 pools of natural origin were determined to be "significant vernal pools" based on the NRPA Chapter 335 definition and species criteria (i.e., egg mass numbers, fairy shrimp, and rare species). Most of the significant vernal pools were wholly or partially located within the existing, non-forested portions of the transmission line corridors. Additional detail on the 42 significant vernal pool habitats identified is provided in **Exhibit 7-5**. It should be noted that no permanent fill will be placed in any natural vernal pool depressions. Furthermore, additional detail on the 641 state and/or federally jurisdictional vernal pool habitats is provided in **Exhibit 7-6**.

In addition, CMP has documented a category of vernal pools, Potentially Significant Vernal Pools ("PSVP"), to address natural pools that have been identified in the field but lack confirmation of "significance". Surveys have determined that there are 23 such PSVPs. CMP will treat all PSVPs as Significant Vernal Pools, including the requirements for compensation, until they can be confirmed as non-significant. Additional details on the 23 PSVPs identified are provided in **Exhibit 7-5**.

The only permanent loss of terrestrial habitat within 250 feet of USACE-regulated vernal pools will result from the placement of fill to accommodate the construction of the Merrill Road Converter Station. Please refer to **Tables 1-3 and 1-4** in the Development Description of this Site Law application for specific information on the amount of critical habitat loss.

Significant Vernal Pool and Potentially Significant Vernal Pool Maps are provided in **Attachment 6** of the Site Law application.

### 7.3.7 RTE Wildlife and Species of Special Concern

The following sections identify and describe rare, threatened, and endangered species and species of special concern (collectively, "RTE" or "RTE species") that may potentially occur in the vicinity of the NECEC Project components. Data from the MDIFW and USFWS indicate that the following state and federally listed species, as summarized in **Table 7-1**, may potentially occur in the vicinity of the NECEC Project.

Table 7-1: RTE Wildlife and Species of Special Concern Summary Table

Common Name	Scientific Name	Federal / State Protection		
Canada Lynx	Felis lynx	Federal Threatened		
		State Special Concern		
Atlantic Salmon (See 7.5.2.2)	Salmo salar	Federal Endangered		
Northern Long-eared bat	Myotis septentrionalis	Federal Threatened		
		State Endangered		
Little brown bat	M. lucifugus	State Endangered		
Eastern small-footed bat	M. leibii	State Threatened		
Big brown bat	Eptescicus fuscus),	State Special Concern		
Red bat	Lasiurus borealis	State Special Concern		
Hoary Bat	Lasiurus cinereus	State Special Concern		
Silver haired bat	Lasionycteris noctivagans	State Special Concern		
Tri-colored bat	Perimyotis subflavus	State Special Concern		
Northern bog lemming	Synaptomys borealis	State Threatened		
Roaring brook mayfly	Epeorus frisoni	State Threatened		
Northern spring salamander	Gyrinophilus porphyriticus	State Special Concern		
Bicknell's thrush	Catharus bicknelli	State Special Concern		
Rusty blackbird	Euphagus carolinus	State Special Concern		
Great blue heron	Ardea Herodias	State Special Concern		
Wood turtle	Glyptemys insculpta	State Special Concern		
Scarlet bluet	Enallagma pictum	State Special Concern		
Brook floater	Alasmidonta varicosa	State Threatened		
Tidewater mucket	Leptodea ochracea	State Threatened		
Yellow lampmussel	Lampsilis cariosa	State Threatened		
Creeper	Strophitus undulatus	State Special Concern		

Under the Maine Endangered Species Act ("Maine ESA" or "MESA"), the categories "endangered" and "threatened" are protected. Species of "special concern" and "extirpated" are other administrative categories established by policy, not by regulation, and are for planning and informational purposes. Preferred habitat and documented occurrence information for each of these species as it may occur along the NECEC Project is described below. The species discussed below were identified through consultation with USFWS and MDIFW.

## 7.3.7.1 Canada Lynx

The Canada lynx is individually listed as Federally Threatened under the Endangered Species Act of 1973 (16 U.S.C. §§ 1531 et seq.). ("ESA") and a State Species of Special Concern. The critical habitat for the Canada Lynx Distinct Population Segment (DPS) is also federally designated under the ESA. Critical habitat is defined as a specific geographic area that contains features essential to the conservation of an endangered or threatened species and may require special management and protection. Critical habitat may include areas that are not currently occupied by the species, but its protection is essential to the species recovery. Canada lynx habitat covers northwestern portions of the State of Maine and includes Aroostook and Piscataquis counties and northern Penobscot, Somerset, Franklin and Oxford counties, where snow depths are highest in the state (MDIFW 2017). Figure 7-1 depicts the limits of the critical habitat in relationship to the NECEC transmission corridor (USFWS Shapefile 2017).

Lynx are common throughout the boreal forests of Alaska and Canada and the southern portion of their range once extended into the United States Rocky Mountains, Great Lake states, and the northeast U.S. Breeding populations are strongly correlated to the abundance of snowshoe hare, their primary food source. Dense conifer forest understory in a regenerating sapling spruce-fir forest (15-35 years old) is preferred by both the snowshoe hare and the lynx. Today, resident breeding populations of lynx are found in Maine. The NECEC Project corridor enters the Canada lynx critical habitat at the southern border of Johnson Mountain Twp and extends to the Canadian border in Beattie Twp. Based on information provided by MDIFW, there are no documented occurrences of the Canada lynx within the Project corridor.

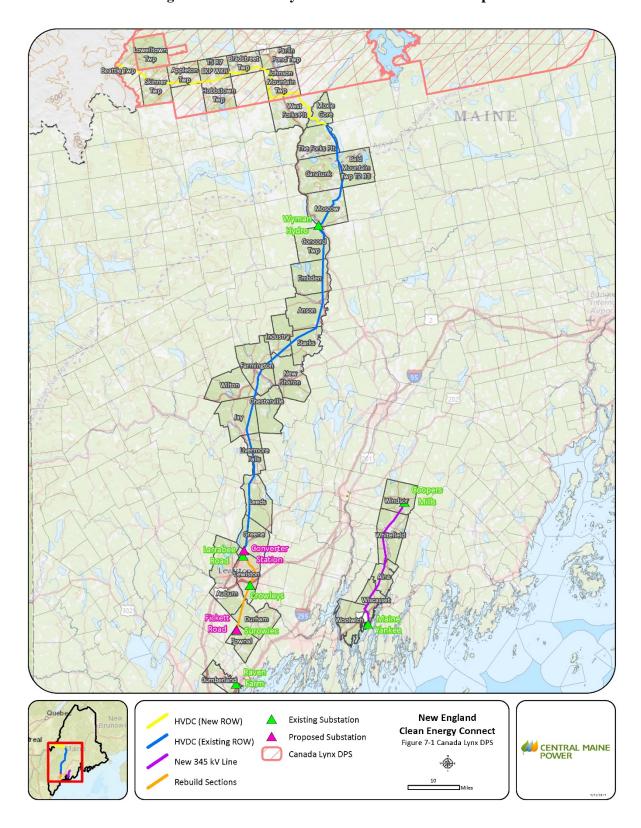


Figure 7-1: Canada Lynx DPS Critical Habitat Map

### 7.3.7.2 Bats

Of the eight species that occur in Maine, three are protected under MESA: little brown bat (State Endangered), eastern small footed-bat (State Threatened) and Northern Long-eared bat (State Endangered). The Northern Long-eared bat ("NLEB") is also Federally listed as Threatened under the ESA. The remaining five species are of Special Concern and are considered in the NECEC Project's protection of bat species: big brown bat, red bat, hoary bat, silver-haired bat, and tri-colored bat.

The overarching threat to the listed species of myotis bats is the invasive fungus that is the causal agent for the White-Nose Syndrome ("WNS"), which is known to predominantly affect hibernating bats. Of the eight-protected species identified within the NECEC Project area, three have confirmed WNS: NLEB, little brown-bat, and eastern small-footed bat. The causative fungus, Pseudogymnoascus destructans (P.d.), has been found on the silver-haired bat and red bat, without confirmation of the disease (MDIFW 2017) (Mosby, C., personal communication, July 18, 2017).

With respect to the NLEB, because of the rapid population decline due to WNS, this species was federally listed as threatened in 2015. Section 4(d) of the ESA ("4(d) rule") was finalized in January of 2016. The 4(d) rule, while it does not designate a critical habitat, prohibits "purposeful take," unless authorized by a permit, except under specific circumstances. "Take" is defined by the ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect." "Purposeful take" is when the reason for some activity or action is to conduct some form of take. "Incidental take" is take that is incidental to, and not the purpose of an otherwise lawful activity. Inside the WNSZ, which wholly includes the NECEC, all "take" within known hibernacula is prohibited and incidental take caused by tree removal is prohibited (without a permit) if: the tree removal occurs within ¼ mile of a known hibernacula at any time of year and; tree removal cuts or destroys a known occupied maternity roost tree or any other trees within a 150-foot radius of the maternity roost tree during pup-season (June 1 through July 31) (81 FR 1900, January 14, 2016).

NLEB is found across much of the eastern and north central United States and all Canadian provinces from the Atlantic coast west to southern Northwest Territory and eastern British Columbia. This species hibernates during the winter in caves and mines called hibernacula. In the spring and summer, they are forest-dwelling and roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Breeding begins in late summer or early fall when males swarm the hibernacula. After a hibernation period, females establish "maternity roost" trees in the spring and pups are generally born between late May and late July (USFWS 2017). According to Cory Mosby, MDIFW Furbearer and Small Mammal Biologist, there are three known hibernacula sites in the

State of Maine; two in Oxford County and one in Piscataquis County, all well outside of the Project area. MDIFW reported that the only known maternity roost trees for the NLEB in Maine are located on Mount Desert Island within Acadia National Park in Hancock County (Mosby, C., personal communication, July 18, 2017). There is presumed occurrence of roosting bats in the northern hardwood and conifer forests consistent with areas found along the NECEC route.

Like the NLEB, the other state protected bat species (the little brown bat and the eastern small-footed bat) are both cave dwelling species that hibernate in hibernacula in the winter and roost in forested areas in the spring, summer, and fall months. In Maine, known hibernacula are protected by the MDIFW, which has indicated that the known hibernacula of the little brown bat and the eastern small-footed bat coincide with the known hibernacula for the NLEB (Mosby, C., personal communication, July 18, 2017). MDIFW has also indicated that there are no known maternity sites for these two species in forested settings outside of Acadia National Park on Mount Desert Island (Mosby, C., personal communication, July 18, 2017). MDIFW species profiles indicate that, except for the eastern small-footed bat which is found within the southern half of the state, bat species are widely distributed throughout Maine and can be found in nearly all areas (MDIFW 2017). Based on information provided by MDIFW, there are no documented occurrences of these species' individuals within the NECEC Project corridor.

## 7.3.7.3 Northern Bog Lemming

The northern bog lemming is State listed as Threatened under MESA. Little is known about this rare and elusive species. The northern bog lemming is a small mammal about the size of a vole (about one ounce) with a blunt nose, short tail, and a gray coat (McCollough 2003). The species is widely distributed across North America, ranging from Alaska to Labrador and south to Washington and Maine (McCollough 2003). In Maine, the northern bog lemming has been found in five locations, including two sites in Baxter State Park (McCollough 2003). Most occurrences are at elevations of 2,700 feet or greater, in moist wet meadows or boggy areas, often in conjunction with arctic or alpine tundra and spruce-fir forests. Specimens in Maine are associated with deep, moist sphagnum, both in low- and high-elevation settings (MDIFW 2017). Recent discoveries in New Brunswick have led biologists to believe that this species may be found at any riparian area with abundant streamside herbaceous vegetation at elevations of 1,000 feet or greater (MDIFW 2017). The northern portion of the NECEC Project, Segment 1, contains limited locations of elevations greater than 2,700 feet and a larger number of locations over 1,000 feet elevation with several riparian habitats. Based on information provided by MDIFW, there are no documented occurrences of the northern bog lemming within the Project corridor.

<sup>&</sup>lt;sup>10</sup> Elevations are measured in feet above mean sea level.

### 7.3.7.4 Rare Mussels

Four mussel species were identified associated with streams or rivers located near or within the NECEC Project. The Brook Floater, Tidewater Mucket, and Yellow Lampmussel are State listed as Threatened, while the Creeper is identified as Special Concern. A summary for each and its known occurrences is discussed below and detailed in **Table 7-2.** 

### **Brook Floater**

The brook floater is found only in habitats that have consistently flowing water, from small streams to large rivers (Pennsylvania Fish and Boat Commission 2009). It prefers clean water in gravel or sand and gravel substrates in riffles of creeks and small rivers. Within the vicinity of NECEC Project components, there are five documented occurrences of brook floater within the West Branch of the Sheepscot River in Windsor. There is one occurrence associated with the Kennebec River in Anson; however, although the corridor boundary intersects a mapped occurrence area GIS polygon, the Kennebec River, where the brook floater would occur, is not crossed by the transmission corridor.

### Tidewater Mucket

In Maine, the tidewater mucket is known to occur in Merrymeeting Bay, and the Penobscot, St. George, lower Kennebec, and lower Androscoggin rivers (MDIFW 2003). This species prefers coastal lakes, ponds, and slow-moving portions of rivers and will tolerate impoundments. It occurs in a variety of bottom types including silt, sand, gravel, cobble, and occasionally clay. Based on information provided by MDIFW, there are no documented occurrences of the tidewater mucket within the Project corridor.

### Yellow Lampmussel

In Maine, the yellow lampmussel is known to occur in the Penobscot, St. George, and lower Kennebec watersheds (MDIFW 2003). It typically prefers medium to large rivers but is often found in Maine lakes and ponds and will tolerate impoundments. It is often found with the tidewater mucket. This species occurs in a variety of bottom types including silt, sand, gravel, and cobble. Based on information provided by MDIFW, there are no documented occurrences of the yellow lampmussel within the Project corridor.

### **Creeper**

The creeper is found in small to large rivers in the northeastern United States. According to the Massachusetts Division of Fisheries and Wildlife (Massachusetts Division of Fisheries and Wildlife 2007), this species prefers low-gradient river reaches with sand and gravel substrates and low to moderate water velocities. Streams and rivers that are productive, cool to warm water environments with diverse fish assemblages are most likely to

support the creeper (Massachusetts Division of Fisheries and Wildlife 2007). Within the vicinity of NECEC Project components, there is one documented occurrence of the Creeper associated with the Androscoggin River in Livermore Falls. The Project corridor intersects with a mapped GIS polygon associated with the occurrence point, but the Project does not cross the associated Androscoggin River.

Table 7-2: Occurrence Records of State listed Mussel Species within the NECEC Transmission Corridor

Segment	Town	Name	State Ranking	Feature ID#	Project Intersect (Y/N)	Stream Name	Stream Width (ft)	Equipment span (Y/N) <sup>2</sup>
3	Livermore Falls	Creeper	Special Concern	1320	No	Androscoggin River	n/a <sup>1</sup>	No
3	Anson	Brook floater	Threatened	198	No	Kennebec River	n/a	No
5	Windsor	Brook floater	Threatened	154	Yes	West Branch Sheepscot River	60	No
5	Windsor	Brook floater	Threatened	155	Yes	West Branch Sheepscot River	60	No
5	Windsor	Brook floater	Threatened	197	Yes	West Branch Sheepscot River	60	No
5	Windsor	Brook floater	Threatened	7538	Yes	West Branch Sheepscot River	60	No
5	Windsor	Brook floater	Threatened	7539	Yes	West Branch Sheepscot River	60	No
5	Windsor	Brook floater	Threatened	7883	Yes	West Branch Sheepscot River	60	No

<sup>1)</sup> Not applicable: The waterbody does not intersect with the Project corridor, however is adjacent to. 2): No In-stream work is proposed.

## 7.3.7.5 Roaring Brook Mayfly

The Roaring Brook mayfly, an aquatic insect, once thought to be endemic to Roaring Brook near Mount Katahdin, is State-listed as Threatened. Surveys conducted by MDIFW beginning in 2003, led to discovery of 12 more mayfly occurrences, bringing the state total to 14 sites (MDFIW 2017). All sites are clustered in the central and western mountains in Maine at high elevation, perennial headwater streams draining off forested slopes at or above 1,000 feet in elevation within or adjacent to the currently documented range (northern Appalachian Mountain Range, stretching from Mt. Katahdin to the western border with New Hampshire and Quebec). Segment 1 of the NECEC Project falls within the Roaring Brook mayfly range, with one documented occurrence within an unnamed tributary to Mountain Brook in Johnson Mountain Twp. The first observation at this location was in 2003 with the most recent in 2010. The NECEC transmission line corridor intersects the GIS polygon associated with the known occurrence of the Roaring Brook mayfly as shown on the Natural Resource Maps in **Attachment 2** of the Site Location of Development Application.

## 7.3.7.6 Northern Spring Salamander

The northern spring salamander is a State-listed Species of Special Concern. This brightly colored aquatic, lungless salamander is approximately 12-19 cm (5-8 in.) in length as adults. It is usually found in undisturbed, high-relief mountain streams and sometimes in less steep, cool seeps and springs in forested areas (MA NHESP 1994). This species is particularly intolerant to disturbances and is considered an excellent indicator of a clean, well-oxygenated water source (CT DEEP 2017). Potential habitat exists in the coldwater streams found in the northern portions of the NECEC Project areas, however no occurrence data were provided by MDIFW for this species.

### 7.3.7.7 Bicknell's Thrush

The Bicknell's Thrush is a State-listed Species of Special Concern and protected under the Migratory Bird Treaty Act. As a Nearctic-Neotropical migrant, its breeding range is limited and fragmented, with known occurrences in the mountains of western and central Maine, and its wintering locations are confined to the Greater Antilles in the Caribbean (USDA 2017). This species is an extreme habitat specialist, requiring sub-alpine forests dominated by balsam fir and red spruce at elevations around 2,700-feet that typically have a history of natural disturbance resulting in stunted dense understory (MDIFW 2017). Bicknell's Thrush has been discovered in areas disturbed by timber harvesting, ski trails and road construction (Ouellet 1993). Bicknell's Thrush have been found in high densities in newly regenerating clear-cuts and in areas of constantly disturbed locations, including edges of human creating openings or in regenerating balsam fir (USDA 2017).

Breeding individuals arrive in Maine in late May with breeding beginning shortly after the female's arrival. The nesting and fledgling periods are typically from June 1 through August 15. According to MDIFW, breeding individuals are known to abandon their nests as a result of even the most minor disturbance. MDIFW provided one known habitat occurrence which intersects with the NECEC transmission corridor near Colburn Mountain in Johnson Mountain Twp, as shown on the Natural Resource Maps in **Attachment 2** of this Site Location of Development Application.

## 7.3.7.8 Rusty Blackbird

The rusty blackbird is a State-listed Species of Special Concern and protected under the Migratory Bird Treaty Act. Rusty blackbirds inhabit large home ranges (10 to 430 acres) in extensive spruce-fir and mixed spruce/fir northern hardwood forests with abundant wetlands and low gradient streams (Foss and Lambert 2017). They often nest in forested wetlands that contain stunted conifers and surround shallow, open water wetlands (Foss and Lambert 2017). The rusty blackbird is one of the earliest birds to arrive in the spring to breed, and start building nests as early as mid-April. Nesting pairs are often spread across the landscape, but sometimes nest in loose colonies (International Rusty Blackbird Working Group 2017).

Loss of wooded wetlands in winter grounds in the southeastern United States, as well as competition with other species for food, have contributed to this species' decline. Studies of nesting rusty blackbirds show relatively high rates of survival on breeding grounds, suggesting that hazards during migration or on the wintering grounds may present the greatest conservation needs (International Rusty Blackbird Working Group 2017). MDIFW provided one known species occurrence which intersects with the NECEC transmission corridor in Parlin Pond Twp, as shown on the Natural Resource Maps in **Attachment 2** of the Site Location of Development Application.

#### 7.3.7.9 Great Blue Heron

The Great Blue Heron is a State listed Species of Special Concern and protected under the Migratory Bird Treaty Act. This species has experienced a 64% decline in the coast breeding population from 1983 to 2009 (MDIFW 2017). Great Blue Herons can be found in saltwater and freshwater habitats and breed in colonies to build stick nests high off the ground (The Cornell Lab of Ornithology 2017). One Great Blue Heron occurrence was identified by MDIFW on the coastline in Wiscasset, however, it is located 1.2 miles from the nearest point of the NECEC transmission line.

### 7.3.7.10 Wood Turtle

The wood turtle is a State-listed Species of Special Concern. Wood turtles use a mix of aquatic and terrestrial habitats throughout the year. They spend the winter hibernating in permanent, low to moderate gradient streams or

rivers (USFS 2009). The wood turtles' preferred summer habitat consists of cool streams in deciduous woodlands, red maple swamps, marshy meadows, and farm country (Behler and King 1979). They may also use bogs, forested wetlands, and vernal pools during the summer (USFS 2009). In Maine, wood turtles occur throughout the state, from Aroostook County south to York County (USFS 2009). Based on information provided by MDIFW, there are two known occurrences associated with the Sheepscot River in Alna (Segment 5). The GIS polygons for each occurrence overlap with each other and intersect the transmission corridor, however the transmission corridor does not overlap with the associated waterbody (Sheepscot River). The first observance of the wood turtle in this location was in1999 and the most recent in 2004.

### 7.3.7.11 Scarlet Bluet

The scarlet bluet is a small, semi-aquatic insect and is a State listed Species of Special Concern. This species has a very small range restricted to scattered locations in the northeastern United States from New Jersey to southern Maine. According to the Massachusetts Division of Fisheries and Wildlife (2008), the scarlet bluet prefers acidic, sandy ponds with floating vegetation, often with water lilies. While nymphs are aquatic and live among the aquatic vegetation, adults spend much of their time flying out over the water and alighting on lily pads. Based on information provided by MDIFW, the Project is in the range of the Scarlet Bluet but no occurrences of the scarlet bluet have been documented within the Project vicinity.

## 7.4 Minimization and Mitigation of Potential Impacts to Terrestrial Resources

### 7.4.1 Wildlife Habitat

Wildlife responses to transmission corridors have received much attention and study. Transmission line corridors present potential direct impacts, as they may affect species movement, dispersal, density, nesting success and/or survival (Batary and Baldi 2004; Confer 2000; Confer and Pascoe 2003; Henson et al. 2005; Manitoba Hydro 1995; Marklevitz 2003, Willyard et al. 2004). As discussed below, potential impacts to wildlife habitat because of the NECEC may include temporary vegetative disturbance, habitat conversion, and shifting of existing linear forested edges. For the undeveloped corridor of Segment 1, impact may include fragmentation and creation of new linear edges. The proposed Project activities (construction and operation of an electric transmission line, expansion of existing substations and construction and operation of new substations) are environmentally compatible. The potential environmental impacts of the Project will be minimized by implementation of the measures discussed below.

#### 7.4.1.1 Habitat Conversion

### 7.4.1.1.1 Transmission Lines

In general, due to the vegetative maintenance that is required to safely construct and operate transmission lines, the corridors that are created permanently alter, but do not eliminate, habitat in areas where forest cover previously existed. Transmission line corridors are maintained as early-successional shrub and herbaceous-dominated habitat, creating a permanent linear corridor of mainly scrub-shrub and non-woody vegetation. Habitat conversion is most pronounced in those areas where the proposed transmission line corridor traverses mature forest stands. The NECEC has been located (routed) and designed to minimize the creation of new transmission line corridors by constructing approximately 73 percent of the Project within existing corridors. Approximately 27 percent of the Project will require new clearing, however this area of the state is already intensively managed (i.e., periodically clearcut) forested land and the creation of a transmission corridor is not likely to disrupt or significantly alter existing land uses. Along select segments, some conversion will be required to modestly expand existing transmission line corridors to accommodate additional transmission lines.

Habitat conversion along transmission line corridors results in a loss of habitat types which, in turn, may adversely impact species that are reliant on the original habitat types. Conversely, such alteration provides benefits to several species. Linear transmission line corridors provide beneficial connectivity between habitat patches in disturbed landscapes (Willyard et al. 2004). Vegetation on a maintained transmission line corridor can also provide important foraging opportunities for several species, in particular, more winter browse for ungulates is available on transmission line corridors than in adjacent forests (Manitoba Hydro 1995). Geier (1992) showed that small mammals, deer, and moose fed more often in transmission line corridors than in adjacent forests. Maintained transmission line corridors may also provide important habitat for some declining populations of pollinator species that rely on scrub-shrub habitats, such as the bumble bees and butterflies (Confer 2000, Confer and Pascoe 2003).

In general, given the existing landscape characteristics of the overall NECEC Project area, construction and maintenance of the transmission line corridors will result in habitat conversion that is already common to the area, i.e. forested to scrub-shrub. It is anticipated that local wildlife populations will adapt and respond to any additional alterations much as they already do to uses within the vicinity of the transmission line corridor. Impacts of habitat conversion along the proposed transmission line corridor are expected to be minimal, beneficial to some species while detrimental to other species. CMP has developed a detailed Compensation Plan through consultation with state and federal resource and regulatory agencies to address impacts to sensitive wildlife habitats. This plan is located in Attachment 12.0 (Compensation and Restoration Plan) of the NRPA application.

### 7.4.1.1.2 New Substations

The Fickett Road substation and the Merrill Road converter station will permanently alter wildlife habitat. The effects of such changes should be minimal as footprints of the new substation yards are modest and there is sufficient similar habitat in the vicinity of both sites. To the maximum extent practicable, the new sites have been sited and designed to avoid and minimize impacts to sensitive wildlife habitats including DWAs, IWWHs, significant vernal pools, and streams and wetlands.

## 7.4.1.2 Fragmentation

Much research has focused on determining the responses of wildlife assemblages to the size and degree of isolation of forest fragments. Forest fragmentation, however, is best evaluated from a landscape scale. Most studies examine bird communities in fragments in agricultural areas where forest stands are isolated and there has been a marked decrease in the region's total forest area. Studies which have focused on the effects of fragmentation in forested landscapes suggest that known effects (such as increased nest predation and isolation) are suppressed in a forested versus an agricultural or developed landscape (Sabine et al. 1996, Flatebo et al. 1999, Small and Hunter 1988, Rudnicky and Hunter 1993).

Some bird species within the NECEC Project area that may be sensitive to forest fragmentation are the long-distance, neotropical migrants that rely on forest interior habitats, but plentiful suitable habitat is available near the NECEC Project areas for these interior forest species. Most of the potential breeding birds that are likely to be found in the vicinity of the transmission line corridor are not dependent on mature forest stands. Such species are typically found in forest settings that have a variety of timber size classes from young regenerating seedlings and saplings to larger mature trees (DeGraaf et al. 1992).

Most of the terrestrial mammal species that are likely to be found near the proposed transmission line corridors are likewise not dependent on mature forest. Most mammal species are typically found in forests that have a variety of size classes (DeGraaf et al. 1992). Forest fragments have been found to be important to species which do not require forest interior and rely more on the interior of edges (Blake and Karr 1987; Freemark and Collins 1992). Seventy three percent of the proposed transmission line corridors will be located within, or adjacent to, existing corridors. This co-location of existing and new transmission lines will not result in fragmentation beyond that which is already present, with the exception of 53.5 miles of new ROW which, as discussed previously, is located in an intensively managed timber production area and therefore not likely to significantly alter existing fragmentation.

## 7.4.1.3 Creation of Abrupt Linear Edges

Abrupt linear edges are inherent and necessary in transmission line corridors; this edge is most dramatic where the corridor traverses mature forested areas. In such areas, the abrupt edge can create a transitional zone which is characterized by species, habitat, and microclimate that differs from both adjacent forest and the transmission line corridor (Willyard et al. 2004). Transmission line corridors can also, depending on width and structure, form distinct species groups associated with the forest interior, transmission line corridor interior, or edge habitats (Anderson et al. 1977, Chasko and Gates 1982, Gates 1991). The transitional zone (also called an ecotone) between forest and transmission line corridor is often associated with increased species density and diversity, however this zone may favor habitat generalists (Willyard et al. 2004).

Overall, edge effects may be multiple and complex (Reis et al. 2004). Examples of complex interactions that may occur include alteration of predator/prey relationships and ecological traps. Predator/prey interactions may be affected by increased densities of either party in edge habitats (Willyard et al. 2004), or by facilitation of predator movement along the forest edge (Marklevitz 2003). Ecological traps (or sinks) occur along forest edges when mortality exceeds production (Willyard et al. 2004). For example, Flaspohler et al. (2001) found that nest density for two ground-nesting species (hermit thrush and ovenbird) in a forested landscape increased in the forested zone near an opening, however nesting success decreased.

Seventy-three percent of the proposed transmission line corridors will be located within, or adjacent to, existing corridors. The co-location of existing and new transmission lines will not result in the creation of abrupt linear edges beyond those that are already present, with the exception of the 53.5 miles of Segment 1 discussed previously and located in an intensively managed area for timber production; this transmission line segment is therefore not likely to significantly alter or increase the existing edge effect.

### 7.4.2 Wildlife

Similar to the general impacts to wildlife habitat discussed above, the proposed transmission line structures, lines, and corridor may potentially impact specific wildlife groups. These potential impacts, along with the proposed minimization and mitigation measures to ensure adequate protection of wildlife, are discussed below.

### 7.4.2.1 Reptiles and Amphibians

Transmission line construction and maintenance may result in limited impacts that are specific to reptiles and amphibians. While protected resources have been avoided to the maximum extent practicable, the transmission line portions of the NECEC Project will traverse some wetlands and streams that provide habitat to several of the amphibians and reptile species that potentially occur in the area. Where stream crossings are unavoidable, best

management practices (BMPs) as described in **Section 14** (Basic Standards Submissions) of the Site Law Application will be employed to minimize impacts associated with construction equipment access. No construction work will be required within waterbodies.

Vernal pools are important to several reptile and amphibian species. CMP will continue to work with the MDEP, MDIFW, USACE, USFWS, and the U.S. Environmental Protection Agency (USEPA) to ensure appropriate vernal pool protection. No direct impacts to significant vernal pool depressions are anticipated from transmission line construction. Access and placement of structures have been designed to minimize and avoid impacts to significant vernal pools to the maximum extent practicable. In instances where critical terrestrial habitat (area within 250 feet of the vernal pool depression) spans the entire width of the corridor; the Project will minimize impacts by utilizing timber mats to reduce disturbance. Some vernal pools will be spanned by electric conductors and there is the potential for indirect impacts through conversion of adjacent forested uplands and wetlands. The potential for these indirect impacts is minimal since the transmission line corridor will be maintained in a well-vegetated state, and only a small proportion of the forested area around any of these pools will be removed during construction of the NECEC Project.

As discussed above, co-location of the large portions of the NECEC Project that are in or adjacent to existing transmission line corridors will help minimize the effects on reptiles and amphibians. As such, reptile and amphibian species within the vicinity are expected to adapt to and coexist with the proposed transmission line portion of the NECEC much as they already do to the existing transmission line corridors.

#### 7.4.2.2 Birds

Proposed transmission line construction and maintenance may result in limited impacts that are specific to birds. Potential adverse avian interactions with transmission lines include electrocution and collisions (Avian Power Line Interaction Committee [APLIC] 2006).

Electrocution is uncommon on high voltage transmission lines such as those proposed by the NECEC Project due to the wide spacing of phases/conductors. Collisions with wires can occur more often, particularly on transmission lines spanning waterways (Olendorff et al. 1981). Consequently, large migratory water birds are the most common victims of wire strikes (Thompson 1978, Manitoba Hydro 1995). APLIC (1994) states that, while waterfowl and large water birds may be more susceptible to collision in wetland areas, raptors and passerines appear to be more susceptible in upland habitats. Thompson (1978) concludes that "raptors, however, due to their great visual acuity, are rarely victims of wire strikes." Bridges and Anderson (2002) conclude that most bird

collisions occur with the overhead ground wire (also called "static wire") when birds veer upward to avoid conductors.

Due to the design and spacing of electric conductors for the NECEC, electrocution is not expected, even for large raptors. Collisions with lines may occur, but are expected to be random and rare. CMP's Construction Vegetation Clearing Plan (Exhibit 10-1) includes specific protections for IWWHs, further discussed in Section 7.4.3.3, and requires CMP to install bird diverters or aviation marker balls where overhead transmission lines cross an IWWH area.

Potential impacts to bird habitat associated with clearing and maintenance of transmission line corridors are expected to be similar to the effects of ongoing maintenance of existing transmission line corridors. As such, avian species within the vicinity are expected to react and adapt to the proposed transmission line portion of the NECEC Project as much as they already do to the existing transmission line corridors, and thus any impacts from the NECEC Project will be minimal.

#### 7.4.2.3 Terrestrial Mammals

It is anticipated that the proposed transmission line construction and maintenance activities will result in minimal potential impacts to most terrestrial mammals. The proposed transmission line construction and maintenance activities may have the potential to result in some impacts to DWAs. These impacts are discussed in **Section 7.4.3.2**, below.

Potential impacts to terrestrial mammals associated with clearing and maintenance of transmission line corridors are expected to be similar to the effects of ongoing maintenance of existing transmission line corridors with which the NECEC will be co-located. As such, terrestrial mammals within the vicinity are expected to react and adapt to the proposed transmission line portion of the NECEC much as they already do to the existing transmission line corridors.

# 7.4.3 Significant or Sensitive Wildlife Habitats

The following sections describe the potential impacts of the NECEC Transmission Project and the proposed minimization and mitigation measures for significant wildlife habitats crossed by the Project corridors. Some of the minimization and mitigation measures are also included in the Construction Vegetation Clearing Plan, **Exhibit 10-1.** 

## 7.4.3.1 Bald Eagle Nest Sites

Based on a review of GIS information provided by USFWS, one bald eagle nest site is located within 660-feet of the NECEC transmission line corridor limits. These data rely on the most recent surveys conducted by the USFWS (2013).

In order to identify potential new and unmapped bald eagle nest sites along the NECEC transmission line corridor, CMP will perform an aerial survey each spring prior to construction. These surveys will be used to determine if any new bald eagle nests have been established near the NECEC transmission line corridors and substations. This aerial survey will be conducted in cooperation with Charlie Todd, MDIFW Endangered Species Coordinator, responsible for bald eagle research in Maine, and Erynn Call, MDIFW raptor specialist. Aerial surveys will focus on target areas identified in coordination with MDIFW and near waterbodies that support eagle activity.

The potential disturbance to eagle nests will generally be avoided by timing construction to coincide with times of the year when the nests are not occupied. Based on recommendations from MDIFW, CMP will avoid construction of the NECEC between March 1 and August 31 within 660-feet of known nest sites. Exceptions to this timing restriction may be requested of MDIFW in site-specific locations.

## 7.4.3.2 Deer Wintering Areas

Based on data received from the MDIFW, 9 of the 21 DWAs crossed will be subjected to some conversion of forested habitat to shrub and herbaceous cover types (refer to **Exhibit 7-2** for specific acreages). Additional DWAs intersected by Segments 4 and 5 of the Project will not be affected as there will be no clearing within DWAs located along these segments. All the DWAs crossed by the NECEC are classified by the MDIFW as indeterminate in value, and thus have no formal value rating.

Construction and maintenance of Segments 2 and 3 will not significantly affect the habitat functional attributes of the DWAs intersected by the Project for the following reasons:

- Corridor construction will only widen existing, non-forested transmission line corridors by
  approximately 75 feet. As such, functional effects on these DWAs are expected to be indiscernible. It is
  expected that after construction has been completed, these DWAs will function similarly to the way they
  currently do.
- CMP will maintain its transmission line corridors in a manner that encourages the growth of non-capable shrub species that can provide important winter browse for over-wintering deer and in accordance with the CMP Post-Construction Vegetation Management Plan (Exhibit 10-2) and CMP's Environmental

Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects ("Environmental Guidelines") (Exhibit 14-1).

## 7.4.3.3 Inland Waterfowl and Wading Bird Habitat

A total of 18 IWWHs were identified within the vicinity of Segments 1, 2, 3 and 5. Two of the IWWHs are ranked as high value, while the remaining 15 are ranked as moderate or unknown value. Twelve of the IWWHs are at least partially located within existing developed transmission line corridors; while six are in the undeveloped portion (Segment 1) of the Project. Additionally, 6 of the 18 IWWHs will not be impacted by clearing activities. (refer to **Exhibit 7-3** for specific acreages).

The 12 IWWHs that are partially located within the existing transmission line corridors have experienced construction and maintenance activities associated with operation and maintenance of the existing lines. These 12 IWWHs will be impacted by clearing for the NECEC Project and will continue to be maintained in accordance with CMP vegetation maintenance practices.

For the IWWH areas that occur within the transmission line corridors and are also ranked as moderate or high in value by the MDIFW, CMP has included restrictions within IWWH areas contained within the NECEC Construction Vegetation Clearing Plan (Exhibit 10-1). A brief summary of some of the protective construction practices to be implemented within IWWH's are as follows. For a full management plan of these areas, please refer to Exhibit 10-1.

- CMP will prohibit the use of motorized vehicles and mechanized equipment between April 15 and July
  15 of each year of construction, unless approved in consultation with MDIFW. This restriction on activity
  within the mapped IWWHs will minimize the potential disruption of avian breeding and nesting activity.
- 2. When practicable, vegetation clearing will take place during frozen ground conditions. If not practicable, vegetation within IWWH must be removed using hand cutting or reach-in techniques and appropriate techniques to minimize disturbance to the maximum extent practicable, such as the use of travel lanes to accommodate mechanical equipment in the IWWH.
- Where overhead transmission lines cross an IWWH area, CMP will install bird diverters or
  aviation marker balls according to the manufacturer's guidelines and applicable transmission line
  codes unless otherwise determined to be impracticable by the MDEP in consultation with
  MDIFW.
- 4. Provided they do not present a safety hazard and are naturally present, CMP will leave undisturbed a minimum of 2-3 snags per acre to provide nesting habitat for waterfowl. Where appropriate, to mitigate habitat impacts due to the development, and as approved by the MDEP,

capable species may be topped, girdled, and/or treated with herbicides to prevent re-growth to create snags. Snags must be 12-16 inches in diameter or the largest size available from the existing stand of vegetation.

In addition, herbicides will only be applied to those areas of IWWH that do not have standing water at the time of the vegetation maintenance cycle (See CMP Post-Construction Vegetation Management Plan, **Exhibit 10-2**).

Construction of NECEC components are not expected to affect the ecological functionality of moderate and high-value IWWHs as these habitats are predominantly characterized by open areas of emergent and shrub vegetation, and contain relatively few trees. These conditions will still exist after construction is completed.

### 7.4.3.4 Vernal Pools

As described below, CMP's construction, maintenance, and operations practices in transmission line corridors are consistent with some of the significant vernal pool habitat management guidelines and goals presented in NRPA Chapter 335 and Calhoun and Klemens (2002)

- 1. No disturbance within the vernal pool depression without prior approval from MDEP and MDIFW. CMP expends a great amount of land acquisition, design, engineering, and construction effort to ensure that vernal pool depressions are not disturbed during construction and maintenance activities. These efforts include (1) providing environmental oversight during the Project design phase to ensure that pole structures are not placed in vernal pools; (2) implementing and maintaining erosion and sedimentation controls that help prevent siltation of pools; (3) marking vernal pool depression with flagging tape prior to construction; and (4) performing environmental inspections during construction to ensure that pools are not traversed by vehicles and construction equipment.
- 2. Maintain a minimum of 75 percent of the critical terrestrial habitat as unfragmented forest with at least a partly-closed canopy of overstory trees to provide shade, deep litter, and woody debris. Although transmission line corridors cannot be maintained as forest for reliability and safety reasons, they are maintained as early-successional habitat composed of shrubs and herbaceous plants. This habitat type provides moderate shading, significant litter accumulation (carbon input) from leaf drop and the die-back of herbaceous vegetation, and woody debris. The NECEC has been sited in existing transmission corridors where practicable to minimize the extent of forest clearing.
- Maintain or restore forest corridors connecting wetlands and significant vernal pools. Within transmission
  line corridors, amphibian travel corridors composed of shrubs and thick growth of herbaceous vegetation
  are often present. Also, based on a position paper prepared for CMP by TRC Engineers, LLC in 2009

- (TRC 2009) it is expected that transmission line corridors and their early-successional habitat are permeable to amphibian migration.
- 4. Minimize forest floor disturbance. With the exception of pole structure locations, transmission line corridors are not grubbed, rather, trees are cut at ground level and root systems are left in the ground. In addition, mitigation techniques including winter construction and the use of equipment mats are utilized during construction to minimize ground disturbance such as rutting. By virtue of transmission line corridor construction and maintenance practices, ground disturbance is minimized to only that necessary for safe construction.
- 5. Maintain native understory vegetation and downed woody debris. Transmission line corridors are constructed and maintained to encourage the growth of understory vegetation including shrubs and herbaceous plants. Also, downed woody debris from shrubs occurs naturally, and removed capable tree specimens, left in place to decompose, is very common in transmission line corridors.

No direct impacts to significant vernal pool depressions are anticipated from transmission line construction. Access to, and placement of, structures have been designed to avoid and minimize and avoid impacts to significant vernal pools to the maximum extent practicable. In instances where a significant vernal pool's critical terrestrial habitat (area within 250 feet of the vernal pool depression) spans the entire width of the corridor; impacts will be minimized by utilizing timber mats to reduce disturbance. Some vernal pools will be spanned by electric conductors and there is the potential for limited indirect impacts through conversion of minor amounts of adjacent forested uplands and wetlands. The potential for these indirect impacts is minimal since the transmission line corridor will be maintained in a well vegetated state, and only a small proportion of the forested area around any of these pools will be removed for the proposed transmission line corridor. Temporary impacts to adjacent wetlands can occur from equipment travel along the transmission line corridor. These impacts will be minimized by working during frozen conditions or by employing other techniques to minimize impacts. Disturbed areas within the 250-foot critical terrestrial habitat of significant vernal pools will be stabilized and restored as soon as practicable.

Section 14 – Basic Standard Submissions (of the Site Law) presents measures to prevent erosion and sedimentation within all wetland areas on or adjacent to the proposed transmission line corridor. CMP will implement its Environmental Guidelines (Exhibit 14-1) during the construction of the NECEC to minimize the potential for sedimentation and to protect vernal pool resources. CMP's guidelines include detailed erosion and sedimentation control measures, resource identification procedures, access road and equipment travel impact minimization measures, and restoration and stabilization measures that will reduce potential impacts to vernal pools in the Project area. CMP has developed a detailed Compensation Plan through consultation with state and

federal resource and regulatory agencies to address impacts to sensitive wildlife habitats. This plan is located in **Attachment 12.0** (Compensation and Restoration Plan) of the NRPA application.

## 7.4.4 RTE Species

The following sections describe the potential NECEC-related impacts to endangered, threatened or special concern species that may potentially occur in the vicinity of the NECEC Project components.

## 7.4.4.1 Canada Lynx

Construction of the NECEC may affect, but it unlikely to adversely affect, the Canada lynx or its critical habitat. The proposed transmission corridor in the northern section of the NECEC Project between Beattie Twp and Johnson Mountain Twp is located in a remote, predominantly forested area which is heavily managed for timber production.

According to the *Canada Lynx Conservation Assessment and Strategy* (Ruediger, et al, 2000), utility corridors can have both short and long-term impacts to lynx habitats, however the primary effect is to disrupt the connectivity of lynx habitat. When located adjacent to highways and railroads, utility corridors can further widen the right-of-way, thus increasing the likelihood of impeding lynx movement. Remote narrow utility corridors may have little or no effect on lynx, and may enhance habitat in certain vegetation types and conditions. The NECEC corridor, which will be cleared to 150 feet within Canada Lynx habitat, is not sited to run directly parallel to other linear features. Once constructed, the corridor will be allowed to revegetate to early successional (scrub/shrub) habitat therefore making it unlikely to impede lynx movements. Alternatively, a remote transmission line may promote a travel corridor for safe movement and provide habitat connectivity to Canadian lynx populations.

The lynx ability to survive and thrive in this region is heavily dependent on the availability of their primary food source, the snowshoe hare. Lynx seem to prefer to move through continuous forest, and frequently use ridges, saddles, and riparian areas (Koehler 1990, Staples 1995). Although cover is important to the lynx when searching for food (Brand et al. 1976), lynx often hunt along edges (Mowat et al. 2000). Research indicates it is unlikely that the creation of 150-foot transmission corridor will negatively affect Canada lynx or snowshoe hare habitat and both species may benefit from the creation of a varied successional landscape and an edge effect for hunting or foraging (Ruediger, et al., 2000).

A study completed by Brocke in 1993 for the USDA Forest Service indicates causes of lynx extirpation from the White Mountain National Forest in New Hampshire was losses from highway kills; along with trapping and loss of habitat (Brocke et al. 1993). Recent studies have not been conducted to assess traffic volume, which may affect lynx mortality and dispersal. However, recent research on other carnivores on highways in Canada suggests that

highway traffic volumes of 2,000 to 3,000 vehicles per day may be problematic due to a higher incidence of animal collisions. Traffic volumes of 4,000 vehicles or more per day create more serious impacts in terms of mortality and effective fragmentation (Ruediger, et al., 2000).

The NECEC corridor within the lynx critical habitat area is in a remote area of the state with no major interstate highways or heavy vehicular traffic. The major road network in this area consists of two lane state or county roads and gravel logging roads. Construction of the NECEC Project will temporarily increase local traffic during construction, but construction activity will not be concentrated in a particular area for extended durations. While the likelihood of an impact to lynx mortality due to vehicular traffic is low, the Project will reduce this potential risk by minimizing night travel, as well as travel at dusk and dawn, when lynx are most active. The NECEC will also require environmental training for all personnel associated with the Project, which will include training related to appropriate speed limits and general awareness of the potential presence of this protected species.

### 7.4.4.2 Bats

The NECEC may affect, but is not likely to adversely affect any of the eight-bat species that could be present along the Project route. As discussed in **Section 7.3.3.2**, the primary threat to bats is White Nose Syndrome (WNS), particularly in the northeast where some bat species populations have declined up to 99 percent (USFWS 2017). The White Nose Syndrome Zone (WNSZ) includes the entire state of Maine and most areas of the eastern and midwestern United States. The three species with confirmed WNS are the NLEB, little brown-bat and eastern small-footed bat. The causative fungus, *Pseudogymnoascus destructans* (P.d.), has been found on the silver-haired bat and red bat, without confirmation of the disease (USFWS 2017). In 2011, it was discovered that bats at the three known hibernacula sites in Maine have visible signs of the WNS fungus on their wings and muzzles. This disease has been reported to cause 90 to 100-percent mortality in hibernaculum in other areas of the country.

The USFWS, under the 4(d) rule, has offered a streamlined consultation framework for the NLEB. This optional framework allows federal agencies to rely upon the USFSW January 5, 2016, intraService Programmatic Biological Opinion (BO) in the Final 4(d) Rule for the NLEB for section 7(a)(2) compliance by: (1) notifying the USFWS that an action agency will use the streamlined framework; (2) describing the Project with sufficient detail to support the required determination; and (3) enabling the USFWS to track effects and determine if re-initiation of consultation is required per 50 CFR 402.16. The NECEC is eligible to utilize the streamlined Section 7 consultation if the Project occurs wholly outside the WNSZ or it is determined that the Project is not near, as defined above, any known hibernacula or maternity roost trees. The NECEC, which is wholly located within the WNSZ but not near any known hibernacula or maternity roost trees, intends to utilize the streamlined consultation and will meet the provisions described in the "Optional framework to Streamline Section 7 Consultation for the

Northern Long-eared Bat" form with submittal to the applicable agencies. If the USFWS does not respond within 30 days of the submittal of the form then it is presumed that consultation is complete. If applicable, the determination will be updated annually for the Projected multi-year construction schedule.

The NECEC will involve 1,809-acres of forest conversion associated with tree clearing. The majority of tree clearing will occur within Segment 1, the 53.5 miles of undeveloped corridor between Beattie Twp and The Forks Plt. According to the BO, tree clearing in areas not near known hibernacula or known maternity roost trees is not a major contributor to the species decline., but because populations of bats are depressed by WNS, human activities that were not previously believed to be significant may be so now (USFWS 2017). In WNS affected areas, MDIFW recommends, although does not require, an attempt to minimize tree removal during the maternity season when the pups are not able to fly and escape a falling tree. Maternity roost season occurs between June 1 and July 31 in Maine. Removal of trees outside this period, when most bats can fly and are more dispersed, is less likely to result in a direct injury or mortality. As a conservation effort to protect all federal and state protected bat species, the NECEC will suspend tree clearing activities during the maternity roost season of June 1 to July 31.

## 7.4.4.3 Northern Bog Lemming

Development of the NECEC is not likely to affect this elusive species. While northern portions of the Project may have suitable habitat, as described in Section 7.3.7.3 above, there have been no known occurrences within or near the Project area. The NECEC has taken steps to minimize impacts to all wetlands and water bodies by siting access roads and structure locations outside these areas to the maximum extent possible. Where crossings are unavoidable, the Project has included specific protections of riparian buffers, which include buffers (Construction Vegetation Clearing Plan: **Exhibit 10-1**) and timber mat spans for equipment crossings (Environmental Guidelines: **Exhibit 14-1**).

Consultation with MDIFW suggests there is limited occurrence data for this species, with no known occurrences near the NECEC Project. Little is known or understood about the habitat requirements and range of the northern bog lemming given their secretive, elusive nature. MDIFW identified potential habitat as wetlands over 1,000-feet in elevation with a dominant cover type of sphagnum. The NECEC Project avoids wetlands to the maximum extent practicable, and, when impacts are unavoidable, they are minimized by the utilization of timber mats for equipment travel, erosion and sedimentation control techniques, and proper restoration methods as per CMP's Environmental Guidelines (Exhibit 14-1). CMP will continue to work with MDIFW to further understand the management standards and specific protective measures for the northern bog lemming.

#### 7.4.4.4 Rare Mussels

Construction of the NECEC is not expected to affect known occurrences of state-listed mussel species. The occurrences of the species are located within larger rivers and streams that will be spanned by the transmission lines. Structures will be placed on either side of these rivers and streams and no crossings are proposed in these locations, therefore in-stream construction will be avoided. To protect known mussel habitat from potential indirect impacts, CMP will implement erosion and sedimentation control measures to prevent sedimentation into waterbodies and maintain the existing water quality.

## 7.4.4.5 Roaring Brook Mayfly

Construction of the NECEC is not expected to affect the Roaring Brook mayfly. To protect the Roaring Brook mayfly habitat and all aquatic and riparian species, CMP has sited transmission line structures to avoid rivers and streams. No in-stream work is proposed as part of this Project. Streams that must be crossed during construction will be entirely spanned by timber mats, consistent with the procedures outlined in CMP's Environmental Guidelines (Exhibit 14-1). CMP will avoid crossing those streams which cannot be completely spanned using available bridging resources. CMP will implement its erosion and sedimentation control measures to prevent sedimentation into waterbodies and maintain the existing water quality. Clearing of riparian buffers will be consistent with the NECEC Construction Vegetation Clearing Plan (Exhibit 10-1), by protecting areas within 25 feet of top of bank of all streams and rivers crossed by limiting clearing to capable species with removal done by hand or by using reach-in techniques. Herbicide application is not permitted within the 25-foot buffer when surface water is present, and no accumulation of slash will be allowed within 25 feet of the resource. Within 100 feet of the top of bank of all streams and river crossed, no equipment refueling or maintenance will occur, and no herbicides will be stored, mixed or transferred, unless these activities take place on a public road.

## 7.4.4.6 Northern Spring Salamander

Very little occurrence information for the northern spring salamander has been gathered by MDIFW, however due to the geographic range of this species, and the presumed excellent water quality of northern coldwater streams, it is assumed that the northern spring salamander is present within the NECEC Project area. To protect this and all aquatic and riparian species, CMP has sited permanent structures to avoid rivers and streams. No in-stream work is proposed as part of this Project. Streams that must be crossed during construction will be entirely spanned by timber mats, consistent with the procedures outlined in CMP's Environmental Guidelines (Exhibit 14-1). CMP will avoid crossing those streams which cannot be completely spanned using available bridging resources. CMP will implement erosion and sedimentation control measures to prevent sedimentation into waterbodies and maintain the existing water quality. Clearing of riparian buffers will be consistent with the NECEC Construction Vegetation Clearing Plan (Exhibit 10-1), by protecting areas within 25

feet of top of bank of all streams and rivers crossed by limiting clearing to capable species with removal done by hand. Herbicide application is not permitted within the 25-foot buffer when surface water is present, and no accumulation of slash will be allowed within 25 feet of the resource. Within 100 feet of the top of bank of all streams and river crossed, no equipment refueling or maintenance will occur, and no herbicides will be stored, mixed or transferred, unless these activities take place on a public road.

# 7.4.4.7 Bicknell's Thrush

As discussed in Section 7.3.3.7, the Bicknell's thrush is an extreme habitat specialist, requiring sub-alpine forests dominated by balsam fir and red spruce at elevations around 2,700-feet that typically have a history of natural disturbance resulting in stunted dense understory (MDIFW 2017). MDIFW provided one known habitat occurrence which intersects with the NECEC transmission corridor in Johnson Mountain Twp. The total area of this breeding habitat is approximately 3,193 acres and is associated with the high elevation sub-alpine forest on Coburn Mountain. The transmission line crosses the habitat for 2,500 linear feet, in a particularly narrow portion at the northeastern corner of the polygon.

Approximately 8.86 acres of habitat will be cleared of capable species to accommodate the HVDC line. As discussed previously, the Bicknell's thrush has recently been discovered in areas disturbed by timber harvesting, ski trail and road construction (Ouelett 1993), which are all activities similar in kind to construction of a transmission line. Additionally, this species has been found in high densities in newly regenerating clear-cuts and in constantly disturbed locations, including edges of human-created openings or in regenerating balsam fir (USDA 2017).

Based on this information, it appears that the Bicknell's thrush will utilize this habitat and may even prefer areas with recent disturbance, such as an early successional transmission corridor. According to MDIFW, however, breeding individuals are known to abandon their nests as a result of even the most minor disturbance. The applicant has reviewed the *Guidelines for managing Bicknell's thrush habitat in the United States* by High Branch Conservation Services (Lambert, MacFarland and Rimmer 2017), which included various recommendations for protection of this species. To avoid impacts during the breeding season, NECEC will not be constructed within the Bicknell's thrush habitat, as shown on the Natural Resources Maps (**Attachment 2**), during the nesting and fledging periods (June 1 through August 15).

# 7.4.4.8 Rusty Blackbird

CMP consulted with Adrienne Leppold, Wildlife Biologist with MDIFW, regarding the one known species occurrence of Rusty Blackbird which intersects with the NECEC transmission corridor in Parlin Pond Twp (Leppold, A., personal communication, August 3, 2017). Ms. Leppold indicated that the

location provided by MDIFW is a single documented occurrence of a breeding pair in 2007, however based on aerial imagery it appears that this location would still support the Rusty Blackbird habitat. The Rusty Blackbird may use the same breeding locations annually. Ms. Leppold indicated that her concerns are minimal, however, since this location may consist of suitable habitat and this species is quite neophobic, i.e., it strongly favors familiar conditions and habitat, it would be preferable to avoid clearing activities within this location between April 30 and June 30, coinciding with their nesting season. Once clearing has been completed, other activities should not affect the Rusty Blackbird. To avoid impacts during the breeding season, the NECEC will avoid clearing activities within the mapped polygon associated with the documented occurrence, as shown on the Natural Resources Maps (Attachment 2), during the nesting season (April 30 through June 30).

#### 7.4.4.9 Great Blue Heron

There are no documented Great Blue Heron colonies within the NECEC Project. If a heron colony is discovered near or within the transmission Project, CMP will contact an MDIFW biologist for confirmation and under guidance from MDIFW, mitigation efforts may be developed and implemented similar to Inland waterfowl and wading bird habitat, see **Section 7.4.3.3**. Based on recommendations from MDIFW, prior to initial transmission line clearing, CMP will complete surveys for heron colonies within or immediately adjacent (within 75-feet) to existing IWWH's within the NECEC Project, between April 20 and May 31 prior to each year of construction. If discovered, CMP will notify and consult with MDIFW biologist.

#### 7.4.4.10 Wood Turtle

As discussed in **Section 7.3.3.10**, wood turtles prefer wetland and aquatic habitats throughout the year and are typically found in streams, rivers, red maple swamps, and marshy meadows but, may also be found in bogs and vernal pools. MDIFW provided two known occurrence points for the wood turtle associated with the Sheepscot River in Alna (Segment 5). The transmission line corridor does not intersect with the Sheepscot River; however, it does intersect with the two overlapping GIS polygons. Construction of Section 3027 does not require tree clearing, however there will be new structures installed. The NECEC has been designed to avoid the placement of structures within wetlands and waterbodies to the maximum extent practicable. Additionally, CMP's Environmental Guidelines (**Exhibit 14-1**) include detailed erosion and sedimentation control measures, and access road and equipment travel impact minimization measures.

CMP will provide mandatory environmental training for all personnel associated with the Project, which will include general awareness of the potential presence of the wood turtle, as well as proper response procedures if an individual is discovered during construction. Response procedures will include: suspending construction in the

immediate area of the individual, contacting the appropriate MDIFW biologist and, if necessary, attempting to capture and relocate the turtle by a qualified biologist.

#### 7.4.4.11 Scarlet Bluet

This semi-aquatic insect prefers acidic, sandy ponds with floating vegetation and may be found within areas consistent with the NECEC Project, however there have been no documented occurrences within or near the Project transmission corridor. The NECEC is unlikely to impact this species as it has been designed to avoid the placement of structures within wetlands and waterbodies to the maximum extent practicable. Additionally, CMP's Environmental Guidelines (Exhibit 14-1) include detailed erosion and sedimentation control measures to maintain water quality within nearby resources.

## 7.5 Fisheries Resources

#### 7.5.1 Waterbodies and Associated Fisheries

Field survey data identified 724 waterbodies as being intersected by the NECEC transmission line corridor, the majority of which are currently spanned by existing transmission lines. Of those 724 waterbodies, 184 will spanned by construction access roads. The Fickett Road Substation, the Merrill Road Converter Station and the substation upgrades will not impact waterbodies.

Major and minor waterbodies, including both perennial and intermittent streams, are identified in the NECEC Waterbody Table ("waterbody table") (Exhibit 7-7) and depicted on the Natural Resource Maps (Attachment 2). The waterbody table includes detailed segment-specific information for each waterbody within the NECEC transmission line corridors, including: stream name, average width, water quality classifications, width of the existing maintained corridor, width of additional proposed clearing, distance to new structure (pole) locations, and whether a temporary equipment crossing is proposed.

Water quality classifications were derived using The Bureau of Land Resources and Water Quality Waterbody Statutory Classification dataset (http://www.maine.gov/dep/gis/datamaps/). Classifications provided in **Table 7-7** are limited to waterbodies where such geospatial information was available, largely major rivers and their tributaries. Water quality classifications for smaller perennial and intermittent streams, over much of the project, are not provided, as data are not readily available. The NECEC Project will not degrade water quality within any waterbody, and will not violate any state water quality law, including those governing the classification of the State's waters, even with the most stringent standards applied (i.e., Class AA). There is no in-stream construction proposed and all temporary crossings will completely span each stream and will be constructed and maintained in a manner that will prevent sediment from entering waterbodies. Additionally, CMP will follow its Environmental

Guidelines, provided in the Basic Standards Submission Section (Exhibit 14-1), which contain effective and proven erosion and sedimentation control best management practices that will be used to protect soil and water resources during construction of the various NECEC Project components. CMP will also implement its Environmental Control Requirements for Contractors and Subcontractors - Oil and Hazardous Material Contingency Plan (Exhibit 15-1), which establishes minimum requirements for effective spill prevention and response.

The most recognized species comprising coldwater fisheries are members of the family Salmonidae (trout and salmon). The most common coldwater species that occur in the Project area is the brook trout (*Salve Linus fontinalis*). The MDIFW provided geospatial information which identifies certain waterbodies as "likely brook trout habitat." Brook trout are essentially pervasive in the Project area and may be found in some portion of many of the waterbodies. The brook trout populations in some of these streams are natural and self-supporting, particularly those associated with the smaller, colder streams that are sustained by groundwater input.

Species that comprise warmwater fisheries include smallmouth bass (*Micropterous dolomieu*), chain pickerel (*Esox niger*), and sunfish (*Lepomis spp.*). These waterbodies have not been studied because there has been low priority for extending research to the large number of minor waterbodies in Maine considering the abundance of larger and more significant streams and lakes. Some of these minor waterbodies classified as "N/A" are likely to support brook trout, albeit in small and/or seasonal populations. Intermittent waterbodies may provide only short-term fishery habitat value, if any.

# 7.5.2 Protected Fish Species

# 7.5.2.1 Essential Fish Habitat

In 1976, the Magnuson-Stevens Fishery Conservation and Management Act ("Magnuson-Stevens Act (MSA), 16 U.S.C. §§ 1801 et seq.) established a management system for marine fisheries resources of the United States. This included the establishment of regional management councils that develop fishery management plans for conservation and management of fishery resources. The 1986 and 1996 amendments to the MSA, renamed the Sustainable Fisheries Act, included evaluation of habitat loss and protection of critical habitat. The habitat is identified as Essential Fish Habitat ("EFH") and is defined to include "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." EFH can be found for marine and anadromous species within several rivers and associated tributaries and estuaries found along the NECEC transmission line corridor.

#### 7.5.2.2 Atlantic Salmon

The Atlantic salmon is federally listed as Endangered and there is a final Critical Habitat designation for this species, known as The Gulf of Maine Distinct Population Segment (Gulf of Maine DPS). The Atlantic salmon (Salmo salar) is an anadromous fish in Maine which was once present in most major rivers north of the Hudson River. Remnant populations are now known in a limited number of rivers across the state of Maine. Atlantic salmon typically spend two to three years in freshwater and then migrate to the ocean where they spend an additional two to three years before returning to their natal river to spawn. While at sea the salmon grow very quickly. Those that return to spawn after one year at sea are called grilse, whereas those that return after two or more years are called salmon. After spawning in the fall, the spent adults (known as kelts or black salmon) may overwinter in the river, or return immediately to sea.

All waters currently or historically accessible to Atlantic salmon in New England have been designated as EFH for Atlantic salmon. The Atlantic salmon Gulf of Maine DPS of Atlantic salmon is jointly listed by the USFWS and NMFS, however the USFWS has lead agency status for ESA Section 7 consultations for those programs that occur within the freshwater habitat of Atlantic salmon.

The Gulf of Maine DPS encompasses all naturally reproducing remnant populations of Atlantic salmon in a geographic range that extends from the Androscoggin River northward along the coast, to the mouth of the St. Croix River. The Penobscot River and its tributaries downstream from the site of the Bangor Dam are included in the range of the Gulf of Maine DPS. To date, USFWS and NMFS have determined that these populations are found in the following watersheds:

- Sheepscot River watershed
- Ducktrap River watershed
- Cove Brook watershed
- Narraguagus River watershed
- Pleasant River watershed
- Machias River watershed
- East Machias River watershed
- Dennys River Watershed
- Penobscot River
- Androscoggin River
- Kennebec River

Through a review of the National Oceanic and Atmospheric Administration (NOAA) Fisheries Atlantic Salmon Critical Habitat GIS Data Layer and the Maine Office of GIS Data Layer-Atlantic Salmon Habitat (ASHAB3) (4/15/2016), multiple waterbodies intersected by the transmission line corridors along the NECEC Transmission Project are considered potential habitat for Atlantic salmon. The NECEC Transmission Project corridor encounters the following Atlantic salmon watersheds: Upper and Lower Kennebec, St. George/Sheepscot and the Lower Androscoggin. Smaller rivers identified as being potential habitat of the Atlantic salmon include: the West Branch of the Sheepscot River and the Sandy River, a drainage to the Lower Kennebec. In addition, it is likely that many perennial tributaries to these rivers contain suitable Atlantic salmon habitat. Critical habitat and waterbodies which contain Atlantic Salmon DPS are identified in the Waterbody Table (Exhibit 7-7); however, no in-stream construction work is proposed within any stream that might currently support Atlantic salmon.

#### 7.5.2.3 American Eel

The American eel has a catadromous life cycle: it spawns in the ocean and migrates to fresh water to grow to adult size. In Maine, the American eel is state listed species of special concern. This species has many life stages: leptocephali, glass eel (also known as elvers), yellow eel, and silver eel. Yellow eel are the primary life stage harvested by commercial and recreational fishermen, when they are in brackish or fresh waters (ASMFC, 2014).

Fisheries biologists and fisheries managers throughout the East Coast have expressed concern for American eel abundances since at least the 1970s, when landings data and fisheries independent monitoring surveys first suggested that eel stocks were in decline (Atlantic States Marine Fisheries Commission 2000, Atlantic States Marine Fisheries Commission 2014). A 2012 benchmark stock assessment by the Atlantic States Marine Fisheries Commission found that American eel stocks throughout the U.S. were depleted compared to historic abundances. Yellow eel abundances appear to have declined throughout much of their range (Atlantic States Marine Fisheries Commission 2012). Trends in glass eel abundances are less clear (U.S. Fish and Wildlife Service 2007, ASMFC 2012).

Range-wide declines in yellow eel abundance are likely due to a combination of factors including fishing pressure, habitat loss, mortality at hydroelectric dams, pollution, disease, and changing ocean conditions (ASFMC 2012). Because of the variety of habitat requirements, depending on the life stage, the American eel can be found in marine environments, brackish waters or far inland in freshwater environments. The NECEC Project primarily traverses freshwater streams and only a portion of them may be able to support eel populations due to impoundments or barriers to the sea.

# 7.6 Minimization and Mitigation of Potential Impacts to Fisheries Resources

#### 7.6.1 Waterbodies and Associated Fisheries

Overall, direct impacts to fishery resources will be minimal, as work is not proposed within waterbodies. Potential indirect impacts include sedimentation and turbidity, introduction of pollutants, and locally increased stream insolation (exposure to sunlight) associated with the construction of utility corridors (Peterson 1993). As discussed below, these indirect impacts will be minimal.

Potential sedimentation associated with soil disturbance from equipment use and vehicle access can result in temporary short-term impacts to fishery resources. Sedimentation can result in reduced light penetration, smothering of aquatic feeding and spawning areas, and impairment of aquatic respiration. Sedimentation can also impact the quality of coldwater fish habitat in waterbodies by increasing the level of substrate embeddedness <sup>11</sup>, reducing habitat complexity, and altering stream channels. To avoid these problems, CMP will implement its Environmental Guidelines (Exhibit 14-1) during the construction of the NECEC to minimize the potential for sedimentation and to protect fishery resources. CMP's guidelines include detailed erosion and sedimentation control measures, resource identification procedures, access road and equipment travel impact minimization measures, and restoration and stabilization measures that will reduce potential impacts to waterbody resources.

Sun exposure on smaller waterbodies can result in a negative impact due to an increase in water temperature, i.e., insolation, which can pose problems for coldwater fisheries. The majority of the NECEC transmission line corridors will not be expanded to accommodate the needs of the Project. On specific segments, some additional clearing will be required to increase the transmission line corridor width to that necessary to construct and safely operate the facilities. The waterbody crossing table located in **Exhibit 7-7** identifies the amount of additional clearing width required within each respective corridor, if applicable. Peterson (1993) has reported that the removal of tree canopy (on new transmission line corridors) increases stream insolation during the short term, but within two years the areas are bordered by dense shrubs and emergent vegetation and water temperatures are not significantly higher than upstream forested reaches.

To minimize any potential for negative impacts to stream habitat and fisheries from vegetative clearing, CMP proposes to allow vegetation to remain in place to the extent practicable and install appropriate sedimentation controls (Section 14 – Basic Standard Submissions). Furthermore, all waterbody crossings will be spanned by the NECEC transmission line, and no work will take place within stream channels. No earth work is proposed in

<sup>&</sup>lt;sup>11</sup> Substrate embeddness is defined as the extent to which larger particles are buried by finder sediments (MacDonald et al. 1991)

general, except for pole installation. No new poles will be installed within 25 feet of these waterbodies, and only minimal tree removal is proposed in these stream buffer areas. All capable species will be removed from the stream buffer during initial clearing for construction. Vegetation maintenance, conducted on a 4-year cycle, in the stream buffer areas will consist of cutting back to ground level, all woody vegetation over 10 feet in height, whether capable or non-capable within that portion of the 25-foot stream buffer within the wire zone (i.e., within 15 feet, horizontally, of any conductor). Only capable species will be removed outside of the wire zone during vegetation maintenance activities. Otherwise, stream side vegetation will not be disturbed during construction or during future maintenance activities and the buffer will continue to function in a similar manner as before construction. Future maintenance activities in these areas will consist of hand removal of those capable species that are likely to encroach on the conductor safety zone within the next 4 years. Herbicides will not be used within 25 feet of streams or standing water. Stream buffers are described in more detail in the NECEC Construction Vegetation Clearing Plan and Post-Construction Vegetation Management Plan that, located in Section 10 (Buffers) of the Site Law Application.

Construction of the NECEC will require temporary equipment access across certain waterbodies to reach pole and utility structure locations. CMP has designed access routes to minimize the number of crossings that will be required, and has avoided crossing of larger waterbodies where possible. Where practicable, access road approaches and temporary equipment spans have been designed to cross waterbodies in a perpendicular fashion to limit the disturbance of vegetation and soils immediately adjacent to waterbodies. CMP will also utilize existing access roads where feasible to minimize disturbance.

CMP has included detailed measures to minimize potential sedimentation and turbidity associated with equipment crossings within its Environmental Guidelines (Exhibit 14-1). Bridges (also known as equipment spans) are the preferred method for temporary access across waterbodies. Bridge construction minimizes potential disturbance to the waterway bed and banks. Most bridges can be quickly removed and reused without significantly affecting the stream or its banks and without interfering with fish migration. All equipment bridges will be routinely cleaned of accumulated sediment deposited by construction traffic; removed sediment will be placed in an upland area to prevent its introduction into a waterbody.

Another potential negative impact to fishery resources is inadvertent spills from construction equipment. The multiple methods, plans, and procedures to prevent surface water degradation during construction, operation, and maintenance of the proposed NECEC transmission lines are incorporated into CMP's Environmental Control Requirements for Contractors and Subcontractors – Oil and Hazardous Material Contingency Plan (Exhibit 15-1).

These procedures establish a set of minimum requirements for spill prevention and response. The procedures incorporated into the plan have proven successful for preventing spills and for addressing spills if they occur. CMP's environmental inspectors will ensure that all personnel working on the site follow these procedures. These measures will ensure that potential impacts to fishery resources are minimized.

In summary, the practices described in the Site Law, including erosion and sedimentation control measures, vegetative buffer strips, minimization, careful placement and maintenance of stream crossings, and spill prevention and control measures will assure that fish populations in the area will not be adversely affected by the construction and maintenance of the proposed NECEC facilities.

# 7.6.2 Potential Impacts to Protected Fishery Resources

# 7.6.2.1 Essential Fish Habitat

Waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity defines essential fish habitat ("EFH") for marine fishery resources. No work proposed as part of the NECEC will occur within the waters or substrate that is identified as EFH. Therefore, no impacts to EFH will occur.

#### 7.6.2.2 Atlantic Salmon

Potential Atlantic salmon habitat occurs within waterbodies crossed by the NECEC Project. As stated previously, no instream work will occur in any stream that potentially contains Atlantic salmon. CMP has consulted with the resource agencies to identify potential salmon habitat; please refer to the Water Body Crossing Table located in **Exhibit 7-7**, which identifies each stream as Atlantic Salmon Gulf of Maine DPS habitat or Critical Habitat. All equipment bridges spanning waterbodies will be constructed and maintained to prevent the introduction of sediments tracked by construction equipment. Additionally, to protect water quality CMP will implement its Environmental Guidelines (**Exhibit 14-1**), which provides protocols for the implementation of erosion and sedimentation controls.

As referenced in Section 7.6.1, the removal of tree canopy on new transmission line corridors increases stream insolation during the short term, but within two years the areas are bordered by dense shrubs and emergent vegetation and water temperatures are not significantly than upstream forested reaches (Peterson 1993). To minimize any potential for negative impacts to stream habitat and fisheries from vegetative clearing, CMP proposes to allow vegetation to remain in place to the extent practicable and install appropriate sedimentation controls (Section 14 – Basic Standard Submissions). Furthermore, all the waterbody crossings will be spanned by the NECEC transmission line, and no work will take place within the stream channels. No new poles will be

installed within 25 feet of these waterbodies, and only minimal tree removal is proposed in these stream buffer areas. Vegetation maintenance in the stream buffer areas will consist of only removing those tree species that are capable of growing into the conductor safety zone during the next maintenance cycle (4 years) and that are greater than 10 feet tall at maturity (capable species). Otherwise, stream side vegetation will not be disturbed during construction or during future maintenance activities and the buffer will continue to function in a similar manner as before construction. Future maintenance activities in these areas will consist of hand removal of those capable species that are likely to encroach on the conductor safety zone within the next 4 years. Herbicides will not be used within 25 feet of streams or standing water. Stream buffers are described in the NECEC Construction Vegetation Clearing and Post-Construction Vegetation Management Plans found in **Section 10** (Buffers) of the Site Law Application.

#### 7.6.2.3 American Eel

Potential American eel habitat occurs within waterbodies crossed by the NECEC Project. No in-stream work is proposed as part of the Project, as structures are located on either side of the stream and streams will be entirely spanned, if necessary to cross with equipment. CMP will implement the Construction Vegetation Clearing and Post-Construction Vegetation Management Plans to protect riparian vegetation and buffers. See Section 10 – Buffers, of this Site Law Application, for specific information on the stream buffers and vegetation maintenance practices proposed for riparian zones. Additionally, to protect water quality CMP will implement its Environmental Guidelines (Exhibit 14-1), which provides protocols for erosion and sedimentation control as well as access road matting and stream spans.

# **Exhibit 7-1: Agency Correspondence**

# Johnston, Lauren A

From: Meehan, Amy <Amy.Meehan@maine.gov>

**Sent:** Wednesday, May 10, 2017 9:17 AM

**To:** Johnston, Lauren A

**Subject:** RE: Data Request – Lauren Johnston

**Attachments:** QMIzipfile.makezip

Follow Up Flag: Follow up Flag Status: Completed

#### Lauren,

Attached are the data you requested from the Maine Department of Inland Fisheries and Wildlife. These data are mapped in Universal Transverse Mercator (UTM) projection, NAD 83, for zone 19N.

These data are provided by the Maine Department of Inland Fisheries and Wildlife solely for your individual use or the use of your company for the purpose stated in your request for the data. These data may not be distributed or sold to other users without the written permission of the Commissioner of the Department of Inland Fisheries and Wildlife.

You will need to change the file extension back to "zip" in order to open the file. Please let me know if you have any problems or questions.

Amy Meehan Wildlife Biologist Maine Department of Inland Fisheries and Wildlife 650 State Street Bangor, Maine 04401 amy.meehan@maine.gov

Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

Sent: Tuesday, May 09, 2017 7:18 AM

To: Meehan, Amy

**Cc:** Goodwin, Mark; Desson, Leonard R (Len) **Subject:** Data Request – Lauren Johnston

Good Morning Amy,

I am requesting IF&W data layers (all) that intersect our project area for the Quebec-Maine Interconnect (QMI) Project. The attached shapefile represents our project area.

Thanks,

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483

lajohnston@burnsmcd.com \ burnsmcd.com

# Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Maine Ecological Services Field Office P. O. Box A East Orland, ME 04431

Phone: (207) 469-7300 Fax: (207) 902-1588 http://www.fws.gov/mainefieldoffice/index.html



May 09, 2017

In Reply Refer To:

Consultation Code: 05E1ME00-2017-SLI-0579

Event Code: 05E1ME00-2017-E-01091 Project Name: Quebec Maine Interconnect

Subject: List of threatened and endangered species that may occur in your proposed project

location, and/or may be affected by your proposed project

# To Whom It May Concern:

The enclosed species list identifies the threatened, endangered, candidate, and proposed species and designated or proposed critical habitat that may occur within the boundary of your proposed project or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC Web site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having

similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the Endangered Species Consultation Handbook at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

This species list also identifies candidate species under review for listing and those species that the Service considers species of concern. Candidate species have no protection under the Act but are included for consideration because they could be listed prior to completion of your project. Species of concern are those taxa whose conservation status is of concern to the Service (i.e., species previously known as Category 2 candidates), but for which further information is needed.

If a proposed project may affect only candidate species or species of concern, you are not required to prepare a Biological Assessment or biological evaluation or to consult with the Service. However, the Service recommends minimizing effects to these species to prevent future conflicts. Therefore, if early evaluation indicates that a project will affect a candidate species or species of concern, you may wish to request technical assistance from this office to identify appropriate minimization measures.

Please be aware that bald and golden eagles are not protected under the Endangered Species Act but are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). Projects affecting these species may require development of an eagle conservation plan: <a href="http://www.fws.gov/windenergy/eagle\_guidance.html">http://www.fws.gov/windenergy/eagle\_guidance.html</a> Information on the location of bald eagle nests in Maine can be found on the Maine Field Office Web site: <a href="http://www.fws.gov/mainefieldoffice/Project%20review4.html">http://www.fws.gov/mainefieldoffice/Project%20review4.html</a>

Additionally, wind energy projects should follow the wind energy guidelines: <a href="http://www.fws.gov/windenergy/">http://www.fws.gov/windenergy/</a> for minimizing impacts to migratory birds and bats. Projects may require development of an avian and bat protection plan.

Migratory birds are also a Service trust resource. Under the Migratory Bird Treaty Act, construction activities in grassland, wetland, stream, woodland, and other habitats that would result in the take of migratory birds, eggs, young, or active nests should be avoided. Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm and at: http://www.towerkill.com; and at:

http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

# Attachment(s):

Official Species List

# **Official Species List**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Maine Ecological Services Field Office P. O. Box A East Orland, ME 04431 (207) 469-7300

# **Project Summary**

Consultation Code: 05E1ME00-2017-SLI-0579

Event Code: 05E1ME00-2017-E-01091

Project Name: Quebec Maine Interconnect

Project Type: TRANSMISSION LINE

Project Description: Proposed CMP transmission line from Beattie Township to Pownal and

Windsor to Wiscasset.

# **Project Location:**

Approximate location of the project can be viewed in Google Maps: <a href="https://www.google.com/maps/place/44.722717009714806N70.03484380339984W">https://www.google.com/maps/place/44.722717009714806N70.03484380339984W</a>



Counties: Androscoggin, ME | Cumberland, ME | Franklin, ME | Kennebec, ME |

Lincoln, ME | Sagadahoc, ME | Somerset, ME

# **Endangered Species Act Species**

There is a total of 4 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

Threatened

Threatened

Endangered

Threatened

3

# **Mammals**

NAME STATUS

Canada Lynx (Lynx canadensis)

Population: Contiguous U.S. DPS
There is a **final** <u>critical habitat</u> designated for this species. Your location overlaps the

designated critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/3652">https://ecos.fws.gov/ecp/species/3652</a>

Northern Long-eared Bat (Myotis septentrionalis)

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>

**Fishes** 

NAME

Atlantic Salmon (Salmo salar)

Population: Gulf of Maine DPS

There is a **final** <u>critical habitat</u> designated for this species. Your location overlaps the

designated critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/2097">https://ecos.fws.gov/ecp/species/2097</a>

**Flowering Plants** 

NAME STATUS

Small Whorled Pogonia (*Isotria medeoloides*)

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1890">https://ecos.fws.gov/ecp/species/1890</a>

**Critical habitats** 

There are 2 critical habitats wholly or partially within your project area.

NAME STATUS

Atlantic Salmon (Salmo salar) Final

designated

Canada Lynx (*Lynx canadensis*) Final

designated

# Johnston, Lauren A

From: Perry, John <John.Perry@maine.gov>
Sent: Monday, June 05, 2017 11:47 AM

**To:** Johnston, Lauren A

'gerry.mirabile@cmpco.com' (gerry.mirabile@cmpco.com); Marquis, Adam; Goodwin, Mark; Meehan,

Amy; Stratton, Robert D

**Subject:** RE: MDIF&W Project Review

**Attachments:** QMIzipfile.zip; FINAL\_Performance Standards for DWA in ROW Projects.pdf; FINALPerformance

Standards for IWWH in ROW Project.pdf; FINALPerformance Standards SVPs in ROW Projects.pdf;

FINALPerformance Standards for Buffers in ROW Projects.pdf; MDIFWResponse\_ERid2362

ERVerID2577-FINAL.pdf

**Importance:** High

Hi Lauren,

Our preliminary comments on resources and habitats of concern are attached. To minimize confusion in the letter, you'll note in our response that we primarily reference that you work with our species specialists, all of whom are located at our Bangor Headquarters—this is because a project of this scale crosses several MDIFW regional jurisdictions, and the reality is that multiple regional fisheries and wildlife biologists will come into play along with the species specialists during the review of this project. We rely on our regional staff for their regional and site-specific knowledge and expertise of the resources within their respective jurisdictions. Given the complexity of resources this project intersects, to hopefully avoid too much confusion as this project develops please continue to contact me with specific questions and I'll see that they get to the appropriate regional and species specialist staff; if you end up emailing someone directly, please also keep me cc'd.

I've also attached a shapefile of your project along with its intersections of our resources of concerns—please contact Amy Meehan (cc'd in this email) with any questions specific to the shapefiles. Attaching a shapefile for a project of this magnitude seems much more efficient than sending dozens of maps and will hopefully allow the designers to better take into account our resources of concern.

It's a lot of information to take in just a couple of days before our first meeting on Wednesday, but hopefully it's a good starting point for conversations! I will be on the road all day tomorrow but if you have any questions prior to the meeting you can reach me at my cell number below.

John

# John Perry

Environmental Review Coordinator
Maine Department of Inland Fisheries and Wildlife
284 State Street, 41 SHS
Augusta, Maine 04333-0041
Tel (207) 287-5254; Cell (207) 446-5145
Fax (207) 287-6395
www.mefishwildlife.com



Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

Sent: Wednesday, May 10, 2017 1:00 PM

To: Perry, John

Cc: 'gerry.mirabile@cmpco.com' (gerry.mirabile@cmpco.com); Marquis, Adam; Goodwin, Mark

Subject: QMI: MDIF&W Project Review

John,

Please find the attached cover letter, project description and map. I've also attached a shapefile to assist in your review. Please contact me if there are any questions or fees associated with this request.

Thank you.

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

27 Pearl Street \ Portland, ME 04101



Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

# Johnston, Lauren A

**From:** Johnston, Lauren A

**Sent:** Wednesday, May 10, 2017 4:12 PM **To:** 'McCollough, Mark'; Call, Erynn

**Cc:** Goodwin, Mark

**Subject:** RE: QMI Project Review and Data Request- Eagles

**Attachments:** QMI\_Project\_Area\_2017\_05\_10.zip

Follow Up Flag: Follow up Flag Status: Flagged

Thanks for your response Mark.

I've attached the QMI project shapefile in order to map the eagle nest locations within my project impact area. I have completed IPAC and will include those species in my Project Review package.

I will follow-up with Erynn in my pursuit to identify any known eagle nests after 2013.

Burns & McDonnell is in the process of scheduling a pre-application meeting with the DEP, Army Corps and LUPC. Wende Mehaney from USFW as well as John Perry from MDIFW were included on that correspondence.

I will forward the Project Review package when I've compiled all of the required information. I look forward to working with you!

Thanks,

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101

in f View my profile on Linked in

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: McCollough, Mark [mailto:mark mccollough@fws.gov]

Sent: Wednesday, May 10, 2017 3:16 PM

To: Johnston, Lauren A <a href="mailto:laiphnston@burnsmcd.com">laiphnston@burnsmcd.com</a>; Call, Erynn <a href="mailto:Erynn.Call@maine.gov">Erynn.Call@maine.gov</a>>

Cc: Goodwin, Mark <magoodwin@burnsmcd.com>

Subject: Re: QMI Project Review and Data Request- Eagles

#### Lauren:

Thank you for your request. The Maine Field Office's Bald Eagle Locator tool largely reflects our knowledge of eagle nest locations through 2013 when the Maine Department of Inland Fisheries and Wildlife last conducted a statewide eagle nest survey. I think it would be most efficient if you sent me a shapefile of your proposed

project area (either the towns mapped in the attached figure or some buffer to the proposed transmission line) that I will forward to our GIS expert to map eagle nests and provide this information back to you.

I suspect that you have found our IPaC data system through the Maine Field Office website and have developed a list of other Federal-listed species and critical habitats that may occur in your project area.

Maine Inland Fisheries and Wildlife has continued to record locations of eagle nests that are recorded anecdotally after the 2013 survey. I would suggest that you contact Erynn Call at MDIFW. I've copied her on this email.

I don't recall the dates of the eagle surveys associated with the MPRP project. If after 2013, then you may know of new eagle nest locations that are not mapped on our eagle nest locator tool.

I am also copying Tom Wittig, the Service's (relatively) new Bald and Golden Eagle Act Coordinator in Hadley, MA.

We look forward to receiving your project package. Let us know if you when you are ready to meet with USFWS.

Sincerely, Mark McCollough

On Wed, May 10, 2017 at 12:58 PM, Johnston, Lauren A < <u>lajohnston@burnsmcd.com</u>> wrote:

Good afternoon Mark,

I'm contacting you in regards to a Project Review for the Quebec-Maine Interconnect (QMI) Project proposed by Central Maine Power (CMP). On behalf of CMP, Burns & McDonnell is preparing the state and federal permit applications. In preparation for these applications, I am reviewing the requirements under the ESA-Section 7. I will be preparing a Species Summary Table to submit to your office as part of the project review package. Attached is a Project Description and Map.

I am using the Maine Field Office's Bald Eagle Map Tool to try to determine the presence of bald eagle nests on or within the vicinity of the proposed QMI corridor. Extensive nest surveys were completed prior to and during periods of active construction of the MPRP. Portions of the proposed QMI will be co-located within the same corridor and I expect we will have some interaction the same nests as well as possibly some newly identified ones using existing GIS data.

Can you provide a geo-database or shapefile for the current known nest locations within our project area, or alternatively, I could provide a shapefile to you for this assessment. Since this project covers a large distance with multiple components, overlaying this information on the map will help to provide for a more accurate depiction of nest locations.

Thanks for your help on this matter. Please contact me if you have any concerns!

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483

lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101











Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

#### PLEASE NOTE THAT OUR OFFICE ADDRESS AND PHONE HAVE CHANGED

Mark McCollough, Ph.D. **Endangered Species Specialist US Fish and Wildlife Service** Maine Fish and Wildlife Service Complex

**Ecological Services Maine Field Office** P.O. Box A (mailing address) 306 Hatchery Road (physical address) East Orland, Maine 04431 Telephone: (207) 902-1570

Fax: (207) 902-1588

Cell Phone: 207 944-5709

mark mccollough@fws.gov

# Johnston, Lauren A

From: Johnston, Lauren A

Sent: Tuesday, May 30, 2017 10:15 AM

To: 'Perry, John'

Subject: RE: QMI GIS Shapefile

**Attachments:** QMI\_Project\_Area\_2017\_05\_30.zip

**Follow Up Flag:** Follow up Flag Status: Flagged

Hi John,

Please find the most recent shapefile. Please let me know if you continue to have missing information.

Thanks!

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101











Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

**From:** Perry, John [mailto:John.Perry@maine.gov]

**Sent:** Tuesday, May 30, 2017 9:56 AM

To: Johnston, Lauren A < lajohnston@burnsmcd.com >

Subject: RE: QMI GIS Shapefile

Hi Lauren,

We do not have the Coopers Mills to Maine Yankee segment, and we do not have Auburn to Surowiec.

Thanks!!

John

# **John Perry**

**Environmental Review Coordinator** Maine Department of Inland Fisheries and Wildlife 284 State Street, 41 SHS Augusta, Maine 04333-0041 Tel (207) 287-5254; Cell (207) 446-5145 Fax (207) 287-6395 www.mefishwildlife.com



Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

**Sent:** Friday, May 26, 2017 2:41 PM

To: Perry, John

Subject: QMI GIS Shapefile

#### Good afternoon John,

I am following up regarding the QMI GIS shapefile. You mentioned in the Pre-application meeting that you were missing some project boundaries in the shape that we sent previously to you. Can you describe what you are missing? I'll follow-up with GIS to make sure it does not have any deficiencies.

Thanks!

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101







In f View my profile on Linked I

Proud to be one of FORTUNE's 100 Best Companies to Work For Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.



# STATE OF MAINE DEPARTMENT OF INLAND FISHERIES & WILDLIFE 284 STATE STREET 41 STATE HOUSE STATION AUGUSTA ME 04333-0041

CHANDLER E. WOODCOCK

June 5, 2017

Lauren Johnston Burns & McDonnell 27 Pearl Street Portland, ME 04101

**RE: Information Request - Quebec-Maine Interconnect Project** 

#### Dear Lauren:

Per your request received May 10, 2017, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and fisheries habitat concerns within the vicinity of the *Quebec-Maine Interconnect Project*. Note that as project details are lacking our comments are non-specific and should be considered preliminary. Finally, given the scale of this project (it intersects with multiple MDIFW Regions) we encourage you to continuously seek feedback from our Agency as your project develops.

Our Department has not mapped any Essential Habitats that would be directly affected by your project.

#### Endangered, Threatened, and Special Concern Species

#### Bats

PHONE: (207) 287-5254

Of the eight species of bats that occur in Maine, the three *Myotis* species are protected under Maine's Endangered Species Act (MESA) and are afforded special protection under 12 M.R.S §12801 - §12810. The three *Myotis* species include little brown bat (*M. lucifugus*, State Endangered); northern long-eared bat (*M. septentrionalis*, State Endangered); and eastern small-footed bat (*M. leibii*, State Threatened). The five remaining bat species are listed as Special Concern: big brown bat (*Eptesicus fuscus*); red bat (*Lasiurus borealis*), hoary bat (*Lasiurus cinereus*), silver-haired bat (*Lasionycteris noctivagans*), and tricolored bat (*Perimyotis subflavus*).

While a comprehensive statewide inventory for bats has not been completed, it is likely that several of these species occur within the project area during migration and/or the breeding season. Generally, our Agency does not anticipate significant impacts to any of the bat species as a result of this project; however, ongoing MDIFW research is indicating that habitat features such as rocky features, outcrops, and talus slopes represent increased concerns for *Myotis* bats. As this project develops, please consult with MDIFW small mammal biologist Cory Mosby (207-941-4473) so that avoiding impacts to these rocky habitat features and/or possible acoustic monitoring are taken into consideration during project design.

Finally, we recommend that you contact the U.S. Fish and Wildlife Service--Maine Fish and Wildlife Complex (Wende Mahaney, 207-902-1569) for further guidance, as the northern long-eared bat is also listed as a Threatened Species under the Federal Endangered Species Act.

# Northern bog lemming

Our Agency's traditional view of northern bog lemmings, a State Threatened Species under MESA, is that they typically occur in moist, wet meadows or boggy areas, often in conjunction with artic or alpine tundra and spruce-fir forests at elevations >2,700 feet. However, new encounters from northern Maine have changed our understanding of the distribution and habitat requirements of the species. Those data indicate lush sphagnum peatlands at almost any elevation are sometimes used. In addition, research in New Brunswick indicates that northern bog lemming may not only be restricted to wetlands with sphagnum mats; northern bog lemmings have been found in New Brunswick associated with riparian areas with no sphagnum present. Based on this information the species may be found in Maine at any riparian area with abundant streamside herbaceous vegetation at elevations around 1,000 feet.

As your project continues to undergo design, please consult with MDIFW small mammal biologist Cory Mosby (207-941-4473) for site-specific planning and the need for possible surveys for this species in the northern segment of your project.

#### Rare mussels

Several species of rare mussels have been documented along the proposed transmission line corridor including the brook floater (State Threatened); the yellow lampmussel (State Threatened); the tidewater mucket (State Threatened); and the creeper (Special Concern). These rare animals have experienced significant declines throughout their ranges, with many populations being extirpated due to low population densities, fragmented distributions, and limited or no evidence of recruitment. Because they require clean, free-flowing riverine habitat, they are especially vulnerable to impacts from pollution, sedimentation, dams, and surrounding land use practices that degrade or alter its aquatic habitat. As riparian clearing or construction, including stream crossings, are presumably being considered as part of this project we recommend that riparian buffers remain intact to at least 100-feet wide in rare mussel-bearing water courses. Within these 100-foot buffers we further recommend that:

only capable species >8-10 feet tall would be cut (i.e., no other vegetation is cut); herbicide use would not be allowed; avoid and minimize pole placement; prohibit equipment in the stream channels (i.e., must cross on temporary bridges)

Please contact Beth Swartz in our Bangor office (207-941-4476) to discuss project details and the potential need for possible surveys for these species.

# Roaring Brook Mayfly

Roaring Brook mayfly, a State-listed Threatened Species, is known to be in the northern portions of the project area. Any instream work in unmapped perennial or intermittent streams has the potential to

Letter to Lauren Johnston Comments RE: Quebec-Maine Interconnect Project June 5, 2017

impact this species. They can occur in high elevation, perennial headwater streams draining off forested (hardwood or mixed) slopes at or above 1,000 feet (including unmapped streams) within or adjacent to the currently documented range (northern Appalachian Mountain Range, stretching from Mt. Katahdin to western border with New Hampshire and Quebec). Please contact Beth Swartz in our Bangor office (207-941-4476) to discuss project details and the potential need for possible surveys for these species.

# Northern Spring Salamander

Northern spring salamanders, a State-listed Species of Special Concern, are known to be in the northern portions of the project area. Any instream work in unmapped perennial or intermittent streams has the potential to impact this species (i.e., high elevation headwater streams) but they are also found in larger third order streams and rivers with suitable substrate (large cobble and/or gravel bars) within the documented range of primarily the western Maine mountains north and east into mountains of central Penobscot County. Please contact Beth Swartz in our Bangor office (207-941-4476) to discuss project details and the potential need for possible surveys for these species.

#### Canada lynx

Canada lynx are listed as a Species of Special Concern in Maine and are known to be in the northern portions of the project area. As Canada lynx are listed as a Threatened species under the Federal Endangered Species Act, MDIFW will defer recommendations to the U.S. Fish and Wildlife Service.

## Bicknell's thrush

Portions of the northern project search area intersect with occurrences of Bicknell's Thrush, a Species of Special Concern. Bicknell's thrush can be found in sub-alpine forests usually dominated by balsam fir and red spruce at elevations around 2,700 feet that typically have a history of disturbance resulting in a stunted dense understory. Because breeding individuals are known to abandon their nests as a result of even the most miniscule disturbance, please consult wildlife biologist Adrienne Leppold (207-941-4482) with the Bird Group at our Bangor Headquarters for site-specific planning and the need for possible surveys for this species in the northern segment of your project.

#### Rusty blackbird

Portions of the northern project search area intersect with occurrences of rusty blackbird, a Species of Special Concern. Please consult with wildlife biologist Adrienne Leppold (207- 941-4482) with the Bird Group at our Bangor Headquarters for site-specific planning and the need for possible surveys for this species in the northern segment of your project.

#### Great Blue Herons

The great blue heron is a State Species of Special Concern due to a 64% decline in the coastal breeding population observed from 1983 to 2009. Since 2009, MDIFW has been monitoring the statewide population to determine if the decline seen along the coast is also occurring statewide. Not all great blue heron colonies have been mapped in Maine; therefore, please contact wildlife biologist Danielle D'Auria

Letter to Lauren Johnston Comments RE: Quebec-Maine Interconnect Project June 5, 2017

(207- 941-4478) with the Bird Group at our Bangor Headquarters for further guidance as well as the need for possible surveys along the length of your project.

# Bald Eagle/Raptors

Bald eagles are federally protected by the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and the Lacey Act under the U.S. Fish and Wildlife Service (USFWS). The USFWS has management authority over eagles; therefore, we recommend that you contact the USFWS Maine Fish and Wildlife Complex at (207) 469-7300 for guidance to avoid or minimize impacts to this species. However, MDIFW staff works closely with the USFWS on the protection of this species, as well as for the protection of raptors in general. Therefore, we recommend that you contact MDIFW raptor specialist Erynn Call (207-941-4481) for further guidance to minimize potential impacts to these species.

# Wood turtle

Occurrences of wood turtle, a State Species of Special Concern, have been documented within the search area of the proposed project. Wood turtles use a mix of aquatic and terrestrial habitats throughout the year including meadows, shrub thickets, farmland, and deciduous forests as well as bogs, forested wetlands, vernal pools, and streams. Generally this species appears to prefer edge-associated terrestrial habitats as riparian areas and forest-opening edges have dense shrubbery or ground cover for protection and food, and provide open areas for basking to regulate their body temperature. We recommend that you contact wildlife biologist Derek Yorks (207- 941-4475) with our Reptile, Amphibian, and Invertebrate Group for any site-specific data for your project, as well as the need for possible surveys for this species.

#### Other Rare Invertebrate Species

Given the various locations and scale of the project other rare species of invertebrates, including the scarlet bluet butterfly and possible rare dragonfly species, could found within the project area. Please contact wildlife biologist Phillip deMaynadier (207-941-4239) with our Reptile, Amphibian, and Invertebrate Group to discuss project details and the potential need for possible surveys for these species.

#### American eel

Many of the ponds and streams in the project area contain American eel, which are a Species of Special Concern in Maine. In general, the preferred instream work window of July 15 through October 1 along with construction Best Management Practices should minimize impacts to the species.

#### Significant Wildlife Habitat

# **Deer Wintering Areas**

Several mapped Deer Winter Areas (DWAs) occur within the project review study area. DWAs contain habitat cover components that provide conditions where deer find protection from deep snow and cold

wind which is important for overwinter survival. MDIFW recommends that development projects be designed to avoid losses or impacts to the continued availability of coniferous winter shelter. Any removal of vegetation should be conducted in such a way that improves the quality and vigor of the coniferous species providing this winter shelter. Particularly in the northwestern segment of the project, any clearing within the project area corridor could severely limit deer's ability to get across the right-of-way (ROW) to the other side of the DWA and could be a complete barrier during significant snow. MDIFW has explored avoidance in minimization efforts with various wind power applicants whose generation lines intersected with DWAs including full avoidance (altering the path of the proposed ROW), feathering of trees, and the use of much larger structures to span the DWAs, thus allowing vegetative cover and their value to remain intact. Throughout the design phase we recommend that you refer to the attached Recommended Performance Standards for Deer Wintering Areas in Overhead Utility ROW Projects (March 2012).

# Inland Waterfowl and Wading Bird Habitats

This project intersects or appears to be immediately adjacent to several Inland Waterfowl and Wading Bird Habitats (IWWHs). These habitats provide important breeding, feeding, migration, staging, and wintering habitat for waterfowl and wading bird species. High and moderate value IWWHs within the study area includes both the wetland complex and a 250-foot upland zone. We recommend that these resources be avoided, including no clearing within the 250-foot undisturbed buffer from the wetland edge. Please contact our Agency for guidance to minimize the impacts to these important resources. Throughout the design phase we recommend that you refer to the attached Recommended Performance Standards for Inland Waterfowl and Wading Bird Habitats in Overhead Utility ROW Projects (March 2012).

# Significant Vernal Pools

This project intersects with several mapped Significant Vernal Pools; however, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. Surveys for vernal pools in the project boundary will need to be conducted prior to final project design to determine whether there are other Significant Vernal Pools present. Once surveys are completed, our Department will need to verify vernal pool data sheets prior to final determination of significance. Please contact Beth Swartz in our Bangor office (207-941-4476) to discuss project details and survey needs. Throughout the design phase we recommend that you refer to the attached Recommended Performance Standards for Maine's Significant Vernal Pools in Overhead Utility ROW Projects (March 2012).

#### Fisheries Habitat Concerns

Most of the streams, rivers, and ponds within the project boundary support wild brook trout. MDIFW recommends that 100-foot riparian buffers be maintained along all waterbodies, including intermittent and ephemeral streams, within the project area. To be effective, these 100-foot buffers should be measured from the upland edge of stream or associated fringe and floodplain wetlands. Maintaining buffers along coldwater fisheries is critical to the protection of water temperatures, water quality, and inputs of coarse woody debris necessary to support conditions required by brook trout. Stream crossings should be avoided, but if a stream crossing is necessary it should be designed to provide adequate fish passage. Generally, MDIFW recommends that all new and replacement stream crossings, including

Letter to Lauren Johnston Comments RE: Quebec-Maine Interconnect Project June 5, 2017

temporary crossings, be sized to span 1.2 times the bankfull width of the stream. In addition, we generally recommend that any permanent stream crossings be open bottomed (i.e. natural bottom), although embedded structures which are backfilled with representative streambed material have been shown to be effective in not only providing habitat connectivity for fish but also for other aquatic organisms. Construction Best Management Practices should be closely followed to avoid erosion, sedimentation, alteration of stream flow, and other impacts to stream habitat. In addition, we recommend that any necessary instream work occur between July 15 and October 1. Finally, throughout the design phase we recommend that you refer to the attached Recommended Performance Standards for Riparian Buffers in Overhead Utility ROW Projects (March 2012).

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance we recommend additional consultation with the municipality, and other state resource agencies including the Maine Natural Areas Program and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

John Perry

**Environmental Review Coordinator** 

NAR

# Johnston, Lauren A

**From:** Johnston, Lauren A

**Sent:** Tuesday, July 18, 2017 12:07 PM

**To:** 'Cordes, Robert'

Cc: Perry, John; Goodwin, Mark (magoodwin@burnsmcd.com); 'Stratton, Robert D'

**Subject:** RE: QMI Deer Wintering Areas: Regions D and E

Attachments: Avangrid\_QMI\_Project\_Components\_2017\_05\_10.kmz; Exhibit 7-3 DWA.xlsx

Hi Bob,

Thanks for your reply. Attached is a KMZ of the project components for NECEC (formerly QMI) for you to use in your review.

We have reviewed the DWA layer from the ME GIS data catalog (updated 8/1/2011) and the project intersects with 5 DWA's between Moscow and Farmington. The GIS data does not have any occurrences north of Moscow. If you could provide location information for any north of Moscow or any others in which we have not accounted for (table attached), we will include this in our permit application.

Thanks again for your assistance and please contact me if you have any additional questions or need more information.

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

27 Pearl Street \ Portland, ME 04101



Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

**From:** Cordes, Robert [mailto:Robert.Cordes@maine.gov]

Sent: Tuesday, July 18, 2017 9:59 AM

To: Johnston, Lauren A < lajohnston@burnsmcd.com>

Cc: Perry, John < John.Perry@maine.gov>

Subject: RE: QMI Deer Wintering Areas: Regions D and E

Laura,

A kmz file might be helpful to put a map together for you. Your proposed line does cross a LUPC zoned DWA in Moxie Gore, which runs along the Kennebec Gorge. Also, as we discussed via email a couple weeks ago, there is a non-zoned DWA in West Forks Plt. associated with Cold Stream and the Kennebec Gorge. It also looks like the proposed corridor potential intersects with several DWAs south of Moscow, including a LUPC zoned DWA in Concord Twp.

Bob

Robert C. Cordes Asst. Regional Wildlife Biologist MDIFW - Region D

# 689 Farmington Rd. Strong, ME 04983

#### 207-778-3324 ext. 24

Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

Sent: Thursday, June 29, 2017 8:57 AM To: Kane, Douglas; Cordes, Robert Cc: Perry, John; Goodwin, Mark

Subject: QMI Deer Wintering Areas: Regions D and E

Good Morning Doug and Bob,

I am looking at the mapped DWA's along the proposed route for the Quebec-Maine Interconnect (QMI) transmission line project. The Maine GIS data catalog layer identifies 21 DWA's along the route. The most northerly one is in Moscow, with no occurrences between Beattie Twp and Moscow. Are you aware of any unmapped DWA's in your regions that may intersect with our transmission line and which we should consider in our assessment?

Attached is the project map of the current route alignment. I also have a KMZ available if that would help with your assessment. Let me know if you'd like me to forward it or need any other information.

Thanks,

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 laiohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101









in f View my profile on Linked

Proud to be one of FORTUNE's 100 Best Companies to Work For Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any

other electronic or printed copies. Thank you for your cooperation.

# MEMORANDUM OF CONVERSATION New England Clean Energy Connect (NECEC)

**Contact**: Wende Mehaney and Mark McCollough

Title:BiologistsAffiliation:USFWSDate:June 6, 2017

Attendees: Lauren Johnston, BMCD

Wende Mehaney, USFWS Mark McCollough, USFWS

#### Discussion:

Lauren Johnston contacted Wende Mahaney and Mark McCollough in preparation for the Interagency Resource Consultation Meeting to be held on June 7, 2017. Lauren indicated the purpose of this discussion was how to best prepare for the upcoming meeting. Lauren stated that she created a table for all concern areas and species. She indicated that the meeting would likely be structured by going through each species for general discussion.

Wende and Mark provided a summary of what they would likely be discussing in the next day's meeting.

Mark discussed the following topics and details:

- Canada Lynx-
  - Federally listed but not state listed.
  - Want to look at effect that clearing will have on critical habitat.
  - We only have a few wind power projects to look at as examples.
  - Suggested that an analysis of different habitat types with in the corridor be conducted, specifically looking for spruce-fir, acreage, forest condition (young vs. old).

C

- Small whorled pogonia
- Bald eagle

Wende discussed the following topics and details:

Northern Long-eared bat

• Atlantic Salmon

Mark discussed bumblebees.

- Rusty Patch bumblebee
- Yellow banded bumble bee

Vernal pools were generally discussed by the group.

# MEETING MINUTES QMI Wildlife and Fisheries Consultation Meeting

**Contact**: Mark Goodwin

**Title**: Environmental Manager - Burns & McDonnell

Date:June 7, 2017Time:9:00am-11:30amLocation:CMP, Augusta

#### Attendees:

Gerry Mirabile- CMP
Adam Marquis-CMP
Mark Goodwin- Burns & McDonnell
Lauren Johnston- Burns & McDonnell
Bob Stratton- MDIFW
John Perry- MDIFW
John Mclaire- MDIFW
Don Cameron- MNAP
Jay Clement- USACE
Mark McCollough- USFWS
Wende Mahaney- USFWS

#### Sign-in sheet and meeting agenda attached

#### Discussion:

The meeting began with introductions. Department of Energy (DOE) representative has not been identified as of the date of this meeting. DOE will likely be the lead agency for Section 7 consultation, however that will be determined in the Presidential permit pre-submission meeting. Jay Clement has requested attendance to this meeting.

A summary of information received to date from the agencies was provided by Lauren Johnston (BMCD).

- USFWS has provided shapefile for bald eagle nest locations. Wende Mehaney (USFWS) stated
  that this project does not need follow the "step process" identified on the USFWS website or
  submit a "species summary table" since we will be making regular contact during the
  consultation process. Burns & McDonnell has obtained the Official Species List.
- MDIFW has provided a shapefile which contains: DWA, SVP buffers, riparian buffers, WWH, and RTE. Also received was an Information Request response letter (dated June 5, 2017) with enclosed Recommended Performance Standards for Riparian Buffers, SVPs, IWWH, and DWA (dated March 26, 2012).

• MNAP has provided a shapefile which contains botanical features documented within 1,000-feet of the QMI transmission line as well as a letter response (dated June 6, 2017).

Boyle Associates has completed delineation and field verification surveys for wetlands and vernal pools. GIS information for all delineations and verifications will be submitted. Data sheets will be submitted for all pools. MDIFW asked to BMCD to provide 2017 Resource Delineation Protocol (including previously mapped resources). MDIFW would like the data sheets submitted as soon as possible and noted that they can be submitted in smaller batches so they can begin review and determination of significance. MDIFW stated that vernal pool determinations will take the most time so getting started as soon as possible is beneficial.

Wildlife discussions were provided by each agency as follows:

## **USFWS: Mark McCollough and Wende Mehaney**

## Canada Lynx

- Critical habitat (CH) includes the greenfield line from the Quebec border to a location near The Forks.
- Section 7 review area is broader than the CH area (two differently mapped areas). USFWS will
  provide a GIS shapefile for this.
- A biological assessment (BA) should be considered for the lynx (and all federally listed species in the project area). The federal agency is responsible for the BA however it is often applicant prepared.
- Likely no survey would be needed as lynx are presumed to be in the project area.
- There is existing survey information from MDIFW and it is recommended that we compile this. They have information regarding documented occurrences for the past few years. Contact Jen Vashon (MDIFW).
- The BA should include effects of clearing on CH. Should include total area cleared, how much spruce/fir habitat to be cleared, how much young vs old spruce/fir habitat to be cleared. There is a high population of snowshoe hare associated with young spruce/fir habitat.
- To determine presence of lynx habitat (ie young spruce/fir stands) we could obtain "stand maps" from landowners or complete a habitat analysis based on aerial photography images. USFWS can provide guidance and protocols for the desktop analysis.
- Scientific literature indicates that Canada Lynx are reluctant to cross 300-feet of cleared area.
   BMCD noted that the greenfield portion of transmission line will be cleared to a width of 150-feet and in collocated corridors, the width will not exceed 225-feet in most locations. BA should include some information regarding lynx movement and areas to be cleared.
- BA should include vegetation management standards and the conditions of the ROW post-construction.
- John Perry (MDIFW) will provide contact information for Jen Vashon who is the Lynx biologist at MDIFW. BMCD to contact Jen for survey data and recommendations.

• John Perry noted that MDIFW asked for track surveys during winter conditions for the Number 9 wind farm project.

## **Eagles**

## Bald Eagles

- Bald eagles/golden eagles are protected by the Eagle Act. Setback is 660-feet from the bald eagle nest.
- o If CMP needs to pursue a Take Permit, it will take some time.
- o Last survey effort for bald eagles was in 2013.
- o GIS data provided by USFW has a buffer of 3-miles.
- o Eagles are most likely to be found within ¼ mile of a large wetland or waterbody.
- Surveys will need to be conducted for the whole line but we should identify areas more likely to contain nest sites.
- o Marker balls are a minimization measure for areas near the eagle nests.
- o Contact Charlie Todd (MDIFW) for survey guidance.
- Two surveys are recommended: one when the eagles are starting to nest and one when the chicks have hatched.
- Prior to survey, we should draft a scope of work (SOW)/work plan and provide to USFWS for review.
- o Timing of the survey dates for will vary because of the range of the project. In the south the target date for surveys will be mid-March. In the north, the target date for surveys will be in April. A second survey should be conducted two months afterwards.

#### Golden eagles

- USFWS did not include golden eagle occurrences in GIS shapefile
- Northern portion of the project has historic nest locations.
- Look at MDIFW database for historic nest locations and contact Charlie Todd (MDIFW) for recommendations
- Cliff faces may provide nest sites
- Bob Stratton (MDIFW) indicated that one mapped golden eagle location on MDIFW is 5miles from the project area.
- No known nesting pairs in the state since 2001. There is one radio tagged eagle (currently deceased) with data that we may want to consider.
- o If peregrine falcons are present, eagles are often absent.

## Northern Long-eared bat

- Federally and state listed
- USFWS has streamlined consultation process which assumes presence.
- Streamlined consultations has no requirements for surveys (surveys are optional)
- If CMP decides to do surveys, USFWS can provide a survey protocol.
- MDIFW stated that clearing is generally not an issue and they also don't require surveys.

- John Perry (MDIFW) indicated that Cory Mosby (MDIFW Small mammal biologist) may have some heightened concerned around any rocky features, talus slopes and we should discuss surveys and acoustic monitoring recommendations near any similar potential habitat areas..
- Mark Goodwin (BMcD) discussed modifying in corridor access and structure location to avoid habitat.
- Aerial imagery work to identify rocky features and talus slopes may be recommended in consultation.
- Wende Mehaney (USFWS) indicated that time of year restrictions (TOYR) are not required by USFWS; however, the federal action agency may require TOYRs.
- USFWS recommends winter clearing and the action agency will likely encourage the applicant to agree to no clearing between June 1 and July 31.
- For the streamlined process USFWS will need to know total acreage of tree clearing.
- An Incidental Take permit (ITP) is an option if there is known bat activity in the vicinity of the
  project. ITP's are voluntary if there a potential take and may provide a level of liability to CMP.
- The status of the Northern long-eared bat could change to endangered and the 4(D) rule would no longer be applicable. This may be a consideration for longer term projects.
- Bat surveys are good for 3 years.

## **Atlantic Salmon**

- During MPRP we avoided in-stream crossings, access for QMI is still being developed.
- QMI project area is in the Gulf of Maine Distinct Population Segment (GOM DPS) and Critical Habitat (CH). CH is a subset GOM DPS.
- Identify stream crossings in a table and whether each stream is DPS/CH or coldwater fisheries (MDIFW).
- Direct effects are work in streams, permanent or long-term crossings. Indirect effects are clearing, erosion and sediment control (E&S).
- Informal consultation for the ESA is driven by a No effect or Not likely to affect finding.
   Generally, in-stream crossings in streams with known presence of salmon will trigger a formal consultation.

## Rusty Patch bumblebee

- New listing
- Found west of Penobscot Bay
- Not found near the project area, however surveys continue this summer and it is possible that a survey could find the species near the project.
- No survey would be required at this point.

## Yellow-banded bumblebee

- Proposed for federal listing and a determination is planned for 2018.
- Surveys have found this species in the southern half of the state.

- Beth Swartz (MDIFW) is a resource for both species and has a statewide bumblebee atlas for survey data.
- Mark McCollough stated that surveys are simple and it might make sense to voluntarily do this
  prior to the decision.
- Options for mitigation include creation of pollinator habitat within the ROW.

## Small Whorled Pogonia (USFWS and MNAP)

- Maps include a large geographic area.
- Applicants are to provide information to the federal agency for potential of species presence and determination of effect.
- Aerial photography analysis or onsite visits should be conducted to provide the agency with a habitat assessment and a determination of likelihood of presence.
- MNAP is testing a prototype of a predictive habitat model to help narrow down areas to focus survey areas.
- Don Cameron (MNAP) provided the survey protocol to Burns & McDonnell.
- Survey protocol has elimination criteria.
- Don indicated that he will work with CMP or a consultant to refine the search area to determine areas where the species may be supported.
- Survey timing: mid-June to end of September. Surveys could be completed this summer based on this window.
- Don recommends that surveys areas extend an additional 150-feet beyond the cleared ROW.
- The small whorled pogonia is found in forested locations so it would not be found in already cleared ROW.

## **MNAP: Don Cameron**

- Don suggested that existing rare plant sites identified/surveyed through MPRP should be revisited.
- If completed revisits, all rare plant work could be considered acceptable with some new guidance regarding newly cleared areas. The northern portion of the project is not an area that has a high occurrence of documented rare plant species.
- Areas that are determined to have a higher potential for rare plants should be surveyed.
- The project intersects with one natural community: Upper Floodplain Hardwood Forest in Anson. Gerry noted that this community is rated CD. Don indicated that impact to this natural community is not a deal breaker, however it needs to be clarified as an impact. Don stated that ranking would influence MNAPs interest.
- Art Gilman and TRC (for MPRP) came up with a protocol for landscape analysis to identify potential hotspots for rare species or unmapped natural communities.
- In determining which areas to look at or which to consider hotspots, work with MNAP.

## MDIFW: John Perry, Bob Stratton, John Mclaine

John Perry noted to make sure we are including the regional biologists in all correspondence as well as the biological specialists identified in the Information Request response letter dated June 5, 2017.

## Bats

- Additional details regarding bats were discussed prior and discussions apply to the state listed species.
- Three additional bats are protected under the Maine Endangered Species Act (MESA) and four are listed as Special Concern.

•

## **North Bog Lemming**

- Occurrences of the North Bog Lemming did not get captured by the GIS shapefile provided by MDIEW
- Found at elevations above 2700-feet, however new research shows it may be found in areas above 1,000-feet.
- DNA sampling can be used to verify presence/absence.
- Cory Mosby (MDIFW) should be consulted.

#### Rare mussels

- Setbacks are a standard recommendation. Look to avoid impacts by spanning streams and protection of riparian habitat.
- Consult with Beth Swartz (MDIFW). Beth has documentation of known occurrences.

## **Roaring Brook Mayfly**

- Can occur in any of our streams in the northern portion of the project.
- Occurs in elevations of 1,000-feet or higher.
- Similar habitat to the Northern Spring Salamander. Beth Swartz is the contact for both species.

## Northern Spring Salamander

Discussed in tandem with the Roaring Brook Mayfly.

## Bicknell's Thrush

- Found in subalpine spruce forest.
- MNAP indicated they have mapped locations of subalpine spruce forest habitat.
- This species is very habitat dependent and is tied to the 2700-foot elevation, however have been found as low as 2400-feet.
- USFWS is in process of determining potential listing under the ESA.
- Bob Cordos (MDIFW Region D) and Adrienne Leppold (MDIFW Bird Group) should be contacted.

## Rusty blackbird

• Similar habitat requirements to the Bicknell's Thrush.

## **Great Blue Heron**

- Consider marker balls at line crossing near feeding areas.
- MDIFW may request aerial surveys for unmapped colonies.
- Timing for surveys does not align with bald eagle survey timing.
- Contact Danielle D'Auria (MDIFW) for consultation.

#### Wood Turtle

- Derek Yorks (MDIFW) will have up to date information.
- Minimal concern but dependent on known hotspots a survey may be recommended.
- Surveys may be warranted prior to or during construction phase.

## Other rare invertebrates

- The list provided by MDIFW may not capture all recent occurrence.
- It is advised that we contact Phillip deMaynadier for up to date information.

## Eel

• The concern is in-stream work. Any measures to protect streams will protect the eel.

## Deer wintering area (DWA)

- In the northern portion of the project, DWAs are very important.
- We should rely on the regional biologist in the northern section for consultation regarding mapped DWAs.
- The project should seek to avoid if it's a particularly critical DWA.
- Spanning the DWA or feathering of trees have been used as mitigation measures.
- In higher elevations, clearing of trees could become a barrier for deer.
- Project alignment should attempt to avoid bisecting DWA where practicable.

## Inland waterfowl and wading bird habitat (IWWH)

- Setbacks in riparian areas have increased to 250-feet for some IWWH.
- IWWH mapped on aerial imagery may not be field verified.
- High value IWWH should be avoided if possible.
- Marker balls are likely to be recommended near the IWWH.

## Significant Vernal Pools (SVP)

- Start sending data sheets to Beth Swartz.
- Making determinations on new pools will be the biggest time issue.
- BMCD to contact Beth Swartz to talk about the best way to get them to her and coordination with Boyle.

## **Fisheries**

- Stream crossings are still being determined by CMP.
- Likely no permanent stream crossings.
- MDIFW to provide brook trout GIS layer.
- Most streams in the northern section have native brook trout.
- MDIFW has concerns regarding riparian buffer clearing and leaving vegetation intact (except for capable species).
- Temperature change (insolation) and wood debris input should be considered as well as erosion control.

#### **General Discussion**

- MDIFW asked if there was a Bureau of Public Lands (BPL) intersect? BMCD to follow-up.
- MDIFW asked if there was an intersect with the Coldwater parcel. The route may run along the border of this parcel. MDIFW will provide map. BMCD to follow-up.
- Invasive species list for MPRP was reviewed by Don Cameron (MNAP). Jay Clement suggested that BMCD look at the invasive species list on the ACOE website.
- Mark McCollough brought up staging areas and whether the siting of those areas required any
  additional clearing. MPRP utilized already improved areas for laydown yards so no clearing was
  needed. We will need to evaluate this for QMI.
- John Perry (MDIFW) mentioned the Bigelow route alternative. This alternative has some issues because it goes through an old growth forest and intersect with BPL.
- MDFIW noted that site visits are encouraged with regional staff. The earlier we reach out the better will result in minimal surprises after the application is submitted.
- USFWS requested that as soon as we have contact with DOE, the lead for Section 7 should be determined.
- DOE may have specifics regarding what they require for BAs. USFWS has a protocol they worked out with Jay Clement but DOE may differ.

#### **Action Items:**

#### BMCD follow up items:

- Provide agencies a copy of 2017 Resource Delineation Protocol (including previously mapped resources)
- Submit vernal pool data sheets to MDIFW as they are submitted by Boyle Associates.
- Obtain shapefile for Lynx Section 7 review area from USFWS.
- Contact USFWS for BA outline.
- Contact Jen Vashon (MDIFW) regarding Canada Lynx occurrences near the project area.
- Create stream crossings in a table identify: Atlantic Salmon GOF DPS, CH (USFWS) or coldwater fisheries (MDIFW).
- BMCD to reach out to MDIFW for brook trout GIS layer.
- Is there a BPL intersect?
- Is there an intersect with the Coldwater parcel?

- Review invasive species plan and current invasive species list on USACE website.
- Evaluate the need for laydown areas and additional clearing needs.

From: Johnston, Lauren A

To: "Stratton, Robert D"; Goodwin, Mark; "gerry.mirabile@cmpco.com" (gerry.mirabile@cmpco.com); Marquis, Adam

Cc: Perry, John; Maclaine, John; Mark McCollough (Mark McCollough@fws.gov) (Mark McCollough@fws.gov);

Mahaney, Wende; Clement, Jay L NAE; Cameron, Don S.

Subject: RE: QMI and Cold Stream

**Date:** Tuesday, June 13, 2017 12:57:00 PM

Attachments: OMI-Cold Stream AOI- Map 1- markup laj 6.13.17.pdf

image002.png image004.png image006.png image008.png image010.jpg image012.png

Bob,

Thank you for forwarding the maps for the Cold Stream parcel. Based on the maps provided and our survey information, the corridor does not cross the Cold Stream parcel, however it does run immediately adjacent to it near the intersection of Mountain Brook Road and Capitol Road and also further south near Wilson Hill Road. When Plum Creek Timber, the then owner sold to this parcel to the state, excluded from the sale was an approximately 600-foot wide area to accommodate their major haul road (Capitol Road). CMP subsequently purchased an easement at this location, therefore avoiding intersection with the Cold Stream parcel.

Map 3 shows the transmission line crossing, north to south, two ME BPL parcels: Johnson Mountain and West Forks NE. I've attached a map mark-up with parcels identified.

So based on your statement below, the line does not cross state land horizontally (E to W), however it does cross the Johnson Mountain and West Forks NE parcels vertically (N to S) and then runs adjacent to the Cold Stream parcel on the eastern side of Wilson Hill Road.

Please let me know if you have any questions or disagree with my interpretation. Thanks!

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com 27 Pearl Street \ Portland, ME 041

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

**From:** Stratton, Robert D [mailto:Robert.D.Stratton@maine.gov]

**Sent:** Wednesday, June 07, 2017 4:58 PM

To: Goodwin, Mark <magoodwin@burnsmcd.com>; Johnston, Lauren A
<lajohnston@burnsmcd.com>; 'gerry.mirabile@cmpco.com' (gerry.mirabile@cmpco.com)
<gerry.mirabile@cmpco.com>; Marquis, Adam <adam.marquis@cmpco.com>
Cc: Perry, John <John.Perry@maine.gov>; Maclaine, John <John.Maclaine@maine.gov>; Mark
McCollough (Mark\_McCollough@fws.gov) (Mark\_McCollough@fws.gov)
<Mark\_McCollough@fws.gov>; Mahaney, Wende <wende\_mahaney@fws.gov>; Clement, Jay L NAE

**Subject:** QMI and Cold Stream

Good afternoon Mark, Lauren, Gerry, and Adam,

It was good to meet with you today. As requested following our meeting, attached are maps depicting state conservation lands in the vicinity of Cold Stream (1,2) and an overlay of the proposed QMI route through the area (3). IFW staff had more updated Cold Stream maps than the one I referenced earlier, so I've included:

1. The Cold Stream Forest deer wintering area (DWA) habitat management area (HMA);

<Jay.l.clement@usace.army.mil>; Cameron, Don S. <Don.S.Cameron@maine.gov>

- 2. The Cold Stream Forest Fisheries HMA;
- 3. The proposed QMI route through the area. Please note, this map shows the proposed ROW corridor as an orange double line and the adjacent search area as a larger, pink dashed area.

From map 3, it appears that the proposed route crosses once horizontally, once vertically, then runs immediately adjacent to state conservation land. Please verify if this interpretation is correct.

Thank you very much,

Bob

## **Bob Stratton**

# Supervisor, Fisheries and Wildlife Program Support

Maine Department of Inland Fisheries & Wildlife Bureau of Resource Management 284 State Street, 41 State House Station Augusta, Maine 04333-0041 (207) 287-5659

mefishwildlife.com | facebook | twitter

Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

-

From: Johnston, Lauren A

To: <u>john.perry@maine.gov</u>

Cc: "beth.swartz@maine.gov"; "Jason.Czapiga@maine.gov"

Subject: FW: SPAM-LOW: QMI Vernal Pool IF&W Submission Status

**Date:** Monday, June 12, 2017 11:21:00 AM

Attachments: <u>image001.jpg</u>

image002.jpg image003.jpg image004.jpg image005.jpg image007.png image011.png image013.png image015.jpg image017.png

## Good morning John,

I wanted to keep you in the loop regarding vernal pool consultation for QMI. As detailed below, Boyle Associates dropped off the vernal pool forms and maps to Jason Czapiga and Beth Swartz today.

Thanks,

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com 27 Pearl Street \ Portland, ME 04101

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

**From:** Jared Boyle [mailto:jared@boyleassociates.net]

Sent: Monday, June 12, 2017 10:48 AM

**To:** Goodwin, Mark <magoodwin@burnsmcd.com>; jboyle@boyleassociates.net

**Cc:** 'Mirabile, Gerry J.' <Gerry.Mirabile@cmpco.com>; 'Marquis, Adam'

<adam.marquis@cmpco.com>; 'Emery, Scott' <Scott.Emery@cmpco.com>; Freye, Kenneth

<khfreye@burnsmcd.com>; Johnston, Lauren A <lajohnston@burnsmcd.com>

Subject: RE: SPAM-LOW: QMI Vernal Pool IF&W Submission Status

Hi Mark,

I wanted to let you know that I handed off the hard copies of VP forms and maps to Jason Czapiga this morning. I talked to Beth Swartz on Friday, and she said getting them to either her or Jason would be fine.

Thank you,

## **Jared Boyle**

Wetland Scientist/Project Manager (207)274-4222

## **Boyle Associates**

25 Dundee Rd Gorham, ME 04038 www.bovleassociates.net

From: Goodwin, Mark [mailto:magoodwin@burnsmcd.com]

Sent: Thursday, June 08, 2017 11:06 AM

**To:** <u>jared@boyleassociates.net</u>; 'jboyle@boyleassociates.net'

Cc: Mirabile, Gerry J. (Gerry.Mirabile@cmpco.com); Marquis, Adam; Emery, Scott

(Scott.Emery@cmpco.com); Freye, Kenneth; Johnston, Lauren A Subject: SPAM-LOW: QMI Vernal Pool IF&W Submission Status

Jared:

We had a consultation meeting with IF&W and others yesterday for QMI. IF&W indicated that one of their biggest time sinks would be the review of vernal pool forms to determine significance. Can you give us an update on the status of submission of vernal pool forms to IF&W for this purpose? Also, during our meeting, John Perry indicated that the forms should be sent to Beth Swartz in the Bangor office.

The time it takes for IF&W to review could add time to the schedule for submitting our applications.

Thanks,

# Mark Goodwin, CPESC \ Burns & McDonnell

Senior Environmental Scientist 207-517-8482 \ Mobile 207-416-5707 magoodwin@burnsmcd.com \ burnsmcd.com 27 Pearl Street \ Portland, ME 04101

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: Johnston, Lauren A

To: Morin, James; Goodwin, Mark (magoodwin@burnsmcd.com)

Subject: MDIFW Regional contacts

**Date:** Wednesday, June 21, 2017 8:21:00 AM

Attachments: <u>image007.jpg</u>

image009.jpg image011.jpg image015.jpg image017.jpg image001.ppg image002.png image003.png image004.png image004.png image004.png image005.jpg image006.png

In addition to the species specific contacts listed in the Information Request response 6.5.17, we should also include the regional contact. John Perry should be cc'd on all correspondence. See below how it's split up.

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com 27 Pearl Street \ Portland, ME 04101

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

**From:** Perry, John [mailto:John.Perry@maine.gov]

Sent: Tuesday, June 20, 2017 4:29 PM

**To:** Johnston, Lauren A < lajohnston@burnsmcd.com>

**Subject:** RE: Regional contacts

Hi Lauren,

The regional biologists are as follows:

Beattie Twp. to Johnson Mountain Twp.: MDIFW Region E

Wildlife: Doug Kane <u>Douglas.Kane@maine.gov</u> Fisheries: Tim Obrey <u>Tim.Obrey@maine.gov</u>

Chase Stream Twp. to Jay: MDIFW Region D

Wildlife: Bob Cordes Robert.Cordes@maine.gov

Fisheries: Bob VanRiper Robert.VanRiper@maine.gov (soon to be retired); his assistants are Dave Howatt (<u>David.Howatt@maine.gov</u>) and Liz Thorndike (<u>Elizabeth.Thorndike@maine.gov</u>)

Livermore Falls and Leeds and Coopers Mills to Maine Yankee: MDIFW Region B

Wildlife: Keel Kemper <u>Keel.Kemper@maine.gov</u>

Fisheries: Jason Seiders <u>Dwayne.J.Seiders@maine.gov</u>

Greene on south: MDIFW Region A

Wildlife: Brad Zitske <u>Brad.Zitske@maine.gov</u>
Fisheries: Jim Pellerin <u>James.Pellerin@maine.gov</u>

Please keep me cc'd on any correspondence—thanks!

John

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

**Sent:** Thursday, June 15, 2017 10:43 AM

To: Perry, John

Subject: QMI: Regional contacts

Hi John,

I am putting together a contact list for consultation and want to include the regional biologist contacts as well as the species specific biologist identified in the Information Request letter sent on 6.5.17. How are the regions split up throughout the QMI project? Could you provide a list or a range for each region so I can determine who the proper contact is in a specific area of the project?

Thanks,

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483

lajohnston@burnsmcd.com \ burnsmcd.com
27 Pearl Street \ Portland, ME 04101

Proud to be one of *FORTUNE*'s 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

## Johnston, Lauren A

From: Johnston, Lauren A

Sent: Wednesday, July 12, 2017 2:18 PM

To: 'Perry, John'

Cc: Goodwin, Mark (magoodwin@burnsmcd.com)

Subject: **RE: GIS Trout Layer** 

John, I received the trout layer in the mail yesterday. Thank you for providing!

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com 27 Pearl Street \ Portland, ME 04101





Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: Johnston, Lauren A

Sent: Monday, June 19, 2017 12:47 PM To: Perry, John < John.Perry@maine.gov>

Cc: Goodwin, Mark (magoodwin@burnsmcd.com) <magoodwin@burnsmcd.com>

Subject: GIS Trout Layer

Good afternoon John,

It was mentioned in the consultation meeting on 6/7 that MDIFW has a Brook Trout GIS layer. Are you able to help me obtain that information for the QMI project?

Thank you.

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com



in f View my profile on Linked in

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

## Johnston, Lauren A

From: Perry, John < John.Perry@maine.gov> Sent: Tuesday, June 20, 2017 4:58 PM

To: Johnston, Lauren A Cc: Goodwin, Mark

RE: QMI DWA Table.xlsx Subject:

Hi Lauren—these all appear to be indeterminate. In fact, most (the vast majority!) of our DWA's are mapped as "indeterminate".

#### John

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

**Sent:** Tuesday, June 20, 2017 10:13 AM

To: Perry, John Cc: Goodwin, Mark

Subject: QMI DWA Table.xlsx

Good Morning John,

I am looking at the GIS information for the DWA's located in or near the QMI project area. The GIS data didn't include value or ranking (ie. High, Moderate or Indeterminate) for each. Could you assist me in determining this? If I should contact the regional biologists for each area, please let me know.

Thanks, Lauren

## Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101













Proud to be one of FORTUNE's 100 Best Companies to Work For Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: Johnston, Lauren A

To: "Perry, John"

Cc: Goodwin, Mark; Czapiga, Jason; Swartz, Beth; "gerry.mirabile@cmpco.com" (gerry.mirabile@cmpco.com)

Subject: RE: QMI: ETS occurrences and SVPs Date: Tuesday, July 18, 2017 11:42:00 AM

Attachments: <u>image001.png</u>

image012.png image013.png image014.png image015.jpg image016.png image017.png image018.jpg image019.jpg image020.jpg image021.jpg image022.jpg image023.jpg image024.jpg image025.jpg image026.jpg image027.jpg image028.jpg

John,

Thank you very much for your response and the update.

The project will make the assumption that the roaring brook mayfly and northern spring salamander are present in coldwater streams within the project area and will include provisions to avoid impacts in our permit applications. If occurrence data regarding the rare mussels species is available, we'd like to include this in the permit applications. Let us know what we can do to facilitate the retrieval of that information.

Our intent is to submit the permit applications on September 15<sup>th</sup> to the agencies. Please let us know if you anticipate that the vernal pool form review will not be complete by the end of August.

Thanks again for your assistance!

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com 27 Pearl Street \ Portland, ME 04101

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

**From:** Perry, John [mailto:John.Perry@maine.gov]

**Sent:** Tuesday, July 18, 2017 8:18 AM

**To:** Johnston, Lauren A < lajohnston@burnsmcd.com>

**Cc:** Goodwin, Mark <magoodwin@burnsmcd.com>; Czapiga, Jason <Jason.Czapiga@maine.gov>;

Swartz, Beth <Beth.Swartz@maine.gov> **Subject:** RE: QMI: ETS occurrences and SVPs

Importance: High

Good morning Lauren,

I spoke with staff recently—given their current, non-project workload combined with the number of pool forms that need to be vetted, it will likely be at least several weeks before the NECEC project pools can be reviewed in their entirety.

Beth will be better suited to address the species occurrence question, but as for roaring brook mayflies and northern spring salamanders: in many cases we tend to accumulate occurrence data on these rare species as streams get surveyed during project studies. As there have been extremely few projects in this region of the state, our data on species occurrence in this area is sparse. That said, given the geographic range of these species, as well as the elevation of the project and presumed cold water/excellent water quality of most of the streams, the assumption is that these species are present in the project search area.

John

# John Perry

Environmental Review Coordinator
Maine Department of Inland Fisheries and Wildlife
284 State Street, 41 SHS
Augusta, Maine 04333-0041
Tel (207) 287-5254; Cell (207) 446-5145
Fax (207) 287-6395
www.mefishwildlife.com



Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

**Sent:** Wednesday, July 12, 2017 2:18 PM

To: Swartz, Beth

**Cc:** Perry, John; Goodwin, Mark; Czapiga, Jason **Subject:** RE: QMI: ETS occurrences and SVPs

Good afternoon Beth,

I am following up on the email I sent on June 21<sup>st</sup> and was wondering if you have had a chance to address my requests.

Thank you and I look forward to hearing form you!

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com 27 Pearl Street \ Portland, ME 04101

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: Johnston, Lauren A

Sent: Wednesday, June 21, 2017 11:00 AM

**To:** 'beth.swartz@maine.gov' < beth.swartz@maine.gov >

**Cc:** Perry, John < <u>John.Perry@maine.gov</u>>; Goodwin, Mark (<u>magoodwin@burnsmcd.com</u>) < <u>magoodwin@burnsmcd.com</u>>; 'jason.czapiga@maine.gov' < <u>jason.czapiga@maine.gov</u>>

Subject: QMI: ETS occurrences and SVPs

## Good morning Beth,

According to the Information Request letter provided for the QMI Project (6/5/2017), MDIFW has identified you as the contact for various aquatic related species. Rather than send you a separate email for each species, I've included the list below. Do you have occurrence data for these species or any known locations within or near the project area? A shapefile was provided to MDIFW previously, but I can resend it to you if it would assist you in your review.

- Rare Mussels
  - Brook floater (State threatened)
  - Yellow lampmussel (State threatened)
  - Tidewater mucket (State threatened)
  - Creeper (State Special Concern)
- Roaring brook mayfly
- Northern spring salamander

Additionally, I will be the contact for the significant vernal pool assessment for QMI. Boyle Associates indicated they dropped off VP forms with you and Jason Czapiga on 6/12. I realize depending on how many additional vernal pools Boyle identified during their field effort, it may take a while to review and determine significance. Do you have an estimate on the period of time we are looking at?

Please feel free to give me a phone call if you'd like to discuss any of the above. Thank you and I look forward to hearing from you!

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com 27 Pearl Street \ Portland, ME 04101 Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

## Johnston, Lauren A

From: Morin, James

Sent: Tuesday, September 12, 2017 11:35 AM

**To:** Johnston, Lauren A **Subject:** FW: Canada Lynx habitat

From: Morin, James

Sent: Wednesday, July 19, 2017 4:34 PM

To: 'Vashon, Jennifer' <Jennifer.Vashon@maine.gov>

**Cc:** Goodwin, Mark <magoodwin@burnsmcd.com>; Johnston, Lauren A <lajohnston@burnsmcd.com>; gerry.mirabile@cmpco.com; Perry, John <John.Perry@maine.gov>; 'Robert.D.Stratton@maine.gov'

<Robert.D.Stratton@maine.gov>
Subject: RE: Canada Lynx habitat

Hi Jen,

I may try to give you a call tomorrow to discuss our project and its impact on lynx habitat. A key question I have is in regards habitat conversion of 150' ROW from managed forest to dense scrub/shrub and its potential effect on snowshoe hare and lynx (positive, negative or no effect).

Thanks,

# James P. Morin, LF\*, CPESC \ Burns & McDonnell

Sr. Environmental Scientist \ Forester
Office 207-808-4924 \ Mobile 207-229-6752
jmorin@burnsmcd.com \ burnsmcd.com
27 Pearl Street \ Portland, Maine 04101

## Proud to be one of FORTUNE's 100 Best Companies To Work For

As an advocate of the environment, please print only if necessary and recycle.

\*Licensed in: ME

From: Morin, James

Sent: Monday, July 10, 2017 7:58 AM

To: 'Vashon, Jennifer' <Jennifer. Vashon@maine.gov>

**Cc:** Goodwin, Mark < <u>magoodwin@burnsmcd.com</u>>; Johnston, Lauren A < <u>lajohnston@burnsmcd.com</u>>; <u>gerry.mirabile@cmpco.com</u>; <u>adam.marquis@cmpco.com</u>; Kane, Douglas < <u>Douglas.Kane@maine.gov</u>>; Cordes, Robert < Robert.Cordes@maine.gov>; Perry, John < John.Perry@maine.gov>; wende mahaney@fws.gov;

Mark McCollough@fws.gov

Subject: RE: Canada Lynx habitat

Hi Jennifer,

Please let me know if there is any additional project related information that I can provide you that would be helpful in my request.

Also, do you feel that a project such as this (150' wide transmission line corridor) would have a significant impact to the lynx, snowshoe hare or their habitat?

## Thanks,

# James P. Morin, LF\*, CPESC \ Burns & McDonnell

Sr. Environmental Scientist \ Forester
Office 207-808-4924 \ Mobile 207-229-6752
imorin@burnsmcd.com \ burnsmcd.com
27 Pearl Street \ Portland, Maine 04101

## Proud to be one of FORTUNE's 100 Best Companies To Work For

As an advocate of the environment, please print only if necessary and recycle.

\*Licensed in: ME

From: Vashon, Jennifer [mailto:Jennifer.Vashon@maine.gov]

**Sent:** Thursday, June 29, 2017 2:33 PM **To:** Morin, James < <a href="mailto:jmorin@burnsmcd.com">jmorin@burnsmcd.com</a>>

**Cc:** Goodwin, Mark <<u>magoodwin@burnsmcd.com</u>>; Johnston, Lauren A <<u>lajohnston@burnsmcd.com</u>>; gerry.mirabile@cmpco.com; adam.marquis@cmpco.com; Kane, Douglas <<u>Douglas.Kane@maine.gov</u>>; Cordes, Robert <<u>Robert.Cordes@maine.gov</u>>; Perry, John <<u>John.Perry@maine.gov</u>>; wende\_mahaney@fws.gov; Mark McCollough@fws.gov

Subject: RE: Canada Lynx habitat

Hi James,

Yes, we have a database with records of lynx observations from a variety of sources. I would be happy to work with you on getting the information you need. I'll work with John and Amy Meehan (a gis analysist) to send you the information asap. I believe a shape file would be helpful, however Amy is in the field today. I'll check with her tomorrow on which file type she would prefer.

#### Thanks!

# Jennifer Vashon Black Bear and Canada Lynx Biologist

Maine Dept of Inland Fisheries & Wildlife Division Wildlife Division 650 State St.
Bangor, ME 04401
(207) 941-4238
mefishwildlife.com | facebook | twitter

Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

From: Morin, James [mailto:jmorin@burnsmcd.com]

Sent: Tuesday, June 27, 2017 11:49 AM

To: Vashon, Jennifer

Cc: Goodwin, Mark; Johnston, Lauren A; <a href="mailto:gerry.mirabile@cmpco.com">gerry.mirabile@cmpco.com</a>; <a href="mailto:adam.marquis@cmpco.com">adam.marquis@cmpco.com</a>; Kane, Douglas;

Cordes, Robert; Perry, John; wende\_mahaney@fws.gov; Mark\_McCollough@fws.gov

Subject: Canada Lynx habitat

Hi Jennifer,

I am in the process of compiling information on the Canada Lynx associated with the permitting of the proposed Central Maine Power Company (CMP) Quebec-Maine Interconnect Transmission Line project (QMI). The QMI project includes a high-voltage direct current (HVDC) transmission line that would go from Beattie Twp. to The Forks Plt., down to Wyman Dam, and eventually to Larrabee Substation in Lewiston (see attached map). The section of right of way (ROW) between Beattie Twp. and The Forks Plt. would be new corridor. The section from The Forks south to Lewiston would be within existing corridor, however additional widening would be necessary. We are aware that the Canada Lynx Critical Habitat in the project area is generally located between Beattie Twp and the southern border of Johnson Mountain Twp. Additionally, we have been provided with the Section 7 review area shapefile by USFWS and are aware that the review area extends further south to a point near Embden.

John Perry indicated that you maintain an occurrence database that would help us better understand the distribution of Lynx in the project area. He requested that we reach out to you for any potential survey data or known occurrences within the lynx critical habitat of the project ROW, as well as any information that would help us better understand how a newly cleared, 150' wide transmission corridor from Beattie Twp to The Forks Plt. may impact the lynx, its habitat, and snowshoe hare.

My objective is to obtain enough information about the Canada Lynx to be able to address the potential impacts caused by the proposed project, as well as the assessment of any mitigation measures that can be taken during the clearing and construction phases.

I can provide a shapefile or kmz file if that would assist you in your review. I welcome the opportunity to further discuss my request with you if needed at your earliest convenience.

Thanks,

James P. Morin, LF\*, CPESC \ Burns & McDonnell

Sr. Environmental Scientist \ Forester
Office 207-808-4924 \ Mobile 207-229-6752
jmorin@burnsmcd.com \ burnsmcd.com
27 Pearl Street \ Portland, Maine 04101

Proud to be one of *FORTUNE*'s 100 Best Companies To Work For *As an advocate of the environment, please print only if necessary and recycle.*\*Licensed in: ME

## Johnston, Lauren A

From: Johnston, Lauren A

**Sent:** Friday, July 21, 2017 7:43 AM

**To:** 'McCollough, Mark'

**Subject:** RE: QMI Project: Bald Eagle and Golden Eagle Consultation

Oh no problem Mark, I figured that was the case! Thanks again for your response.

## Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: McCollough, Mark [mailto:mark mccollough@fws.gov]

Sent: Thursday, July 20, 2017 1:15 PM

**To:** Johnston, Lauren A < lajohnston@burnsmcd.com>

Subject: Re: QMI Project: Bald Eagle and Golden Eagle Consultation

Sorry Lauren. We have been getting similar requests from both parties in the last week! The golden eagle advise stays the same...My apologies!!! Mark

On Thu, Jul 20, 2017 at 12:29 PM, Johnston, Lauren A <a href="mailto:lajohnston@burnsmcd.com">lajohnston@burnsmcd.com</a> wrote:

Mark,

Thank you for the valuable information. We will include a discussion regarding the historical significance of the golden eagle in our permit applications.

In your correspondence below, you refer to the Number 9 wind project and the project we are consulting for is CMP's New England Clean Energy Connect (NECEC) formerly the Quebec-Maine Interconnect (QMI) project. I just wanted to point that out in case there was any confusion.

Thanks again!

Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483

lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101











in f View my profile on Linked in

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: McCollough, Mark [mailto:mark mccollough@fws.gov]

**Sent:** Thursday, July 20, 2017 12:22 PM

To: Johnston, Lauren A < lajohnston@burnsmcd.com>

Cc: Call, Erynn < Erynn. Call@maine.gov >; Charlie.todd@maine.gov; douglas.kane@maine.gov; Cordes, Robert <Robert.Cordes@maine.gov>; Perry, John <John.Perry@maine.gov>; Mahaney, Wende <wende mahaney@fws.gov>; Goodwin, Mark <magoodwin@burnsmcd.com>; 'gerry.mirabile@cmpco.com' (gerry.mirabile@cmpco.com) <gerry.mirabile@cmpco.com>

Subject: Re: QMI Project: Bald Eagle and Golden Eagle Consultation

Lauren: As golden eagles nested historically in the mountainous regions of Maine, I do not believe they nested in the vicinity of the proposed Number 9 wind project. The closest nest (which was the last nest in ME) that I am aware of was in the Baxter Park region. On the other had, the Number Nine location may be on a migratory route for golden eagles migrating from Quebec and Labrador (especially the goldens nesting on the Gaspe Peninsula). Goldens throughout this region have been radio-tagged and their movements in Maine documented. One named "Virgil Cane" spent the better part of 4 years in Maine. These data are accessible from public sources (William and Mary and West Virginia University). I don't have web links readily available, but if you cannot find them let me know and we can do some additional digging.

I would encourage you to do bald eagle nesting surveys as you indicate in your email.

Mark McCollough

On Tue, Jul 11, 2017 at 8:55 AM, Johnston, Lauren A < lajohnston@burnsmcd.com > wrote:

Good morning all,

USFWS (Wende Mahaney) provided a GIS shapefile of known bald eagle nest locations from the last survey effort in 2013. There is one nest, 562A, located adjacent to the Androscoggin River in Lewiston and within 660-feet of the proposed QMI transmission line corridor.

Do you have any other known bald eagle nest sites that we should consider prior to the permit application submittal? We intend on conducting survey efforts prior to construction to identify any new or unmapped eagle nest sites.

Additionally, the northern portion of the project is within the mapped golden eagle range in Maine. Based on some initial research, there are no nesting pairs in Maine, however, this species should be included as part of our assessment. Do you have any known historical locations that we should consider in our application discussion? We would welcome recommendations regarding survey efforts for this species.

Thank you and please contact me directly if you would like to discuss further.

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483

lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101











in f View my profile on Linked in

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

--

## PLEASE NOTE THAT OUR OFFICE ADDRESS AND PHONE HAVE CHANGED

Mark McCollough, Ph.D.

**Endangered Species Specialist** 

**US Fish and Wildlife Service** 

Maine Fish and Wildlife Service Complex

**Ecological Services** 

**Maine Field Office** 

P.O. Box A (mailing address)

306 Hatchery Road (physical address)

East Orland, Maine 04431

Telephone: (207) 902-1570

Fax: (207) 902-1588

Cell Phone: 207 944-5709

mark mccollough@fws.gov

--

## PLEASE NOTE THAT OUR OFFICE ADDRESS AND PHONE HAVE CHANGED

Mark McCollough, Ph.D.
Endangered Species Specialist
US Fish and Wildlife Service
Maine Fish and Wildlife Service Complex

Ecological Services
Maine Field Office
P.O. Box A (mailing address)
306 Hatchery Road (physical address)
East Orland, Maine 04431
Telephone: (207) 902-1570

Fax: (207) 902-1588
Cell Phone: 207 944-5709
mark mccollough@fws.gov

From: <u>Call, Erynn</u>

To: Johnston, Lauren A; Todd, Charlie; Kane, Douglas; Cordes, Robert; Perry, John; Stratton, Robert D

Cc: Mahaney, Wende; Mark McCollough (Mark McCollough@fws.gov) (Mark McCollough@fws.gov); Goodwin, Mark;

"gerry.mirabile@cmpco.com" (gerry.mirabile@cmpco.com)

Subject: RE: QMI Project: Bald Eagle and Golden Eagle Consultation

**Date:** Tuesday, July 18, 2017 11:36:56 AM

Attachments: <a href="mage002.jpg">image002.jpg</a>
<a href="mage004.jpg">image004.jpg</a>

image004.jpg image006.jpg image010.jpg image012.jpg

#### Hello Lauren.

Thanks for the inquiry. We have not maintained a database of eagle nests since the 2013 survey. As you mentioned, the best course of action is to conduct surveys and identify new nest locations in the project vicinity.

Regarding Golden Eagle historical nest locations, I don't have any additional information to include but Charlie Todd may have comments on that topic.

Please let me know if you have any other questions.

Kind Regards, Erynn

Erynn Call, Ph.D.
Raptor Specialist, Bird Group
Maine Dept. Inland Fisheries & Wildlife
650 State St., Bangor, ME 04401

Office: (207) 941-4481 Cell: (906) 630-0266 Fax: (207) 941-4450

Email: erynn.call@maine.gov

Website: http://www.maine.gov/ifw/

# Contribute to Protecting Maine's Non-game and Endangered Birds with a Maine Birder Band at:

www.mefishwildlife.com

Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

**Sent:** Tuesday, July 11, 2017 8:56 AM

To: Call, Erynn; Todd, Charlie; Kane, Douglas; Cordes, Robert; Perry, John

Cc: Mahaney, Wende; Mark McCollough (Mark\_McCollough@fws.gov) (Mark\_McCollough@fws.gov);

Goodwin, Mark; 'gerry.mirabile@cmpco.com' (gerry.mirabile@cmpco.com)

Subject: QMI Project: Bald Eagle and Golden Eagle Consultation

Good morning all,

USFWS (Wende Mahaney) provided a GIS shapefile of known bald eagle nest locations from the last survey effort in 2013. There is one nest, 562A, located adjacent to the Androscoggin River in

Lewiston and within 660-feet of the proposed QMI transmission line corridor.

Do you have any other known bald eagle nest sites that we should consider prior to the permit application submittal? We intend on conducting survey efforts prior to construction to identify any new or unmapped eagle nest sites.

Additionally, the northern portion of the project is within the mapped golden eagle range in Maine. Based on some initial research, there are no nesting pairs in Maine, however, this species should be included as part of our assessment. Do you have any known historical locations that we should consider in our application discussion? We would welcome recommendations regarding survey efforts for this species.

Thank you and please contact me directly if you would like to discuss further.

# Lauren Johnston, CPESC \ Burns & McDonnell Senior Environmental Scientist Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com 27 Pearl Street \ Portland, ME 04101 Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

## Johnston, Lauren A

**From:** Mahaney, Wende <wende\_mahaney@fws.gov>

**Sent:** Monday, August 14, 2017 3:35 PM

**To:** Johnston, Lauren A

**Cc:** Mosby, Cory E; Perry, John; Stratton, Robert D; Marquis, Adam; 'gerry.mirabile@cmpco.com'

(gerry.mirabile@cmpco.com); Goodwin, Mark; McCollough, Mark; Clement, Jay L NAE; Mills, Brian

**Subject:** Re: FW: Northern Long Eared Bat Hibernacula

Lauren - This conversation is one we will need to have with the federal action agencies, DOE and ACOE. Ultimately through the ESA section 7 consultation process, the federal action agencies will decide what, if any, restrictions they want to place on the project to protect federally listed species including the northern long-eared bat. This may or may not include a restriction on when tree clearing can be done.

In Maine we consider the "active" bat season throughout the state to be April 20 through October 15 (based on review of acoustic bat survey data from a variety of projects in Maine). I am not aware of any information that would support tweaking these dates for particular regions of the state. Given that there is not much bat research going on in Maine, that might be difficult to do. So, I can't offer a different recommendation for more northern parts of the project versus other locations. But if someone has information to bring to the table for consideration, we can certainly do that as part of the consultation process with DOE and ACOE.

Wende

Wende S. Mahaney, C.W.B.
U.S. Fish and Wildlife Service
Maine Field Office
P.O. Box A (mailing address)
306 Hatchery Road (physical address)
East Orland, Maine 04431

Telephone: (207) 902-1569 (direct line)

Fax: (207) 902-1588 Cellular Phone: 207-944-2991

On Fri, Aug 11, 2017 at 12:58 PM, Johnston, Lauren A <a href="mailto:lajohnston@burnsmcd.com">lajohnston@burnsmcd.com</a> wrote:

Wende,

Please find the correspondence below with the MDIFW regarding our inquiry into the northern long eared bat behavior and the length of the "active season" in the northern sections of the NECEC project. We initially contacted Cory since he has intimate knowledge of federal and state protected bats and their behavior within Maine, however, it may have been appropriate to start with the USFWS biologist opinion for the NLEB since the recommended conservation measures are issued federally. Could you review the following inquiry and kindly respond, as we are assessing our management options to properly protect this species.

In evaluating the time of year recommendations for tree removal activities, necessitated by the new transmission line, the Corps has been referencing the broader "active season" (April 1 through October 31) on certain projects. This is an additional voluntary conservation measure recommended by USFWS to the Federal action agency in the Biological Opinion on the Final 4(d) Rule. This time of year recommendation is more restrictive than the NLEB "pup-season" (June 1 to July 31), proposed by the streamlined section 7 consultation implemented by the USFWS.

CMP is inquiring if there could be flexibility in the "active season" time of year recommendation, based on higher elevation and latitude; and, the longer winter and snow cover season in the northern portions of the project area. The active season includes the "pup season" and from a climate perspective, is there a difference in when NLEB becomes active in the northern reaches of the NECEC Project? If so, would it be appropriate for a shortened active season to be applied from, the town of Moscow north to the Canadian border? This request is also based on the significant logistical/construction impact challenges of a 7-month no-cut period.

If you'd like to talk more in length regarding this, I'd be happy to schedule a call.

Thanks for in advance for your opinion.

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483

lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101













Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: Mosby, Cory E [mailto:Cory.E.Mosby@maine.gov] Sent: Thursday, August 10, 2017 2:49 PM
To: Johnston, Lauren A < lajohnston@burnsmcd.com >
Cc: Goodwin, Mark < magoodwin@burnsmcd.com >; Perry, John < John.Perry@maine.gov >; 'gerry.mirabile@cmpco.com'
(gerry.mirabile@cmpco.com) <gerry.mirabile@cmpco.com>; Stratton, Robert D <robert.d.stratton@maine.gov>;</robert.d.stratton@maine.gov></gerry.mirabile@cmpco.com>
Marquis, Adam <a href="mailto:adam.marquis@cmpco.com">adam.marquis@cmpco.com</a>
Subject: RE: Northern Long Eared Bat Hibernacula
Lauren,
I can only weigh in from a state government perspective, and it sounds like the recommended voluntary conservation
measure is a US Corps/USFWS recommendation, not IFW. The active season they refer to is determined by USFWS
biologist, not IFW.
Sorry that's not much help. Let me know if there's anything else I can do.
Cheers,
Con Maril
Cory Mosby
Furbearer and Small Mammal Biologist
Maine Department of Inland Fisheries and Wildlife
650 State St.
650 State St.
Bangor, ME 04401
207-941-4473 office

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

Sent: Thursday, August 10, 2017 1:08 PM

To: Mosby, Cory E

Cc: Goodwin, Mark; Perry, John; 'gerry.mirabile@cmpco.com' (gerry.mirabile@cmpco.com); Stratton, Robert D; Marquis,

Adam

**Subject:** RE: Northern Long Eared Bat Hibernacula

Hi Corey,

We are looking at NECEC projects' management strategies for protection of the NLEB. In evaluating the time of year recommendations for tree removal activities, necessitated by the new transmission line, the Corps has been referencing the broader "active season" (April 1 through October 31) on certain projects. This is an additional voluntary conservation measure recommended by USFWS to the Federal action agency in the Biological Opinion on the Final 4(d) Rule. This time of year recommendation is more restrictive than the NLEB "pup-season" (June 1 to July 31), proposed by the streamlined section 7 consultation implemented by the USFWS.

CMP is inquiring if there could be flexibility in the "active season" time of year recommendation, based on higher elevation and latitude; and, the longer winter and snow cover season in the northern portions of the project area. The active season includes the "pup season" and from a climate perspective, is there a difference in when NLEB becomes active in the northern reaches of the NECEC Project? If so, would it be appropriate for a shortened active season to be applied from, the town of Moscow north to the Canadian border? This request is also based on the significant logistical/construction impact challenges of a 7-month no-cut period.

If you'd like to talk more in length regarding this, I'd be happy to schedule a call.

Thanks for in advance for your opinion.

# Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483

lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101











in f View my profile on Linked

Proud to be one of FORTUNE's 100 Best Companies to Work For

This email and any attachments are solely for the use of the addressed recipients and

may contain privileged client communication or privileged work product. If you are not the

intended recipient and receive this communication, please contact the sender by phone at

816-333-9400, and delete and purge this email from your email system and destroy any

other electronic or printed copies. Thank you for your cooperation.

From: Mosby, Cory E [mailto:Cory.E.Mosby@maine.gov]

Sent: Tuesday, July 18, 2017 10:06 AM

To: Johnston, Lauren A < lajohnston@burnsmcd.com >

Cc: Goodwin, Mark < magoodwin@burnsmcd.com >; Perry, John < John.Perry@maine.gov >; 'gerry.mirabile@cmpco.com'

(gerry.mirabile@cmpco.com) <gerry.mirabile@cmpco.com>

Subject: RE: Northern Long Eared Bat Hibernacula

Lauren,

Not a problem. Thanks for reaching out.

Known location of maternity roost trees for NLEB: The only known maternity roost trees for NLEB in ME are on Mount Desert Island in hancock county within Acadia National Park.

Of those seven additional bat species you mentioned one is state endangered, the little brown, and the eastern small-footed bat is state threatened. Our known hibernacula for those two species coincide with the hibernacula for NLEB. Additionally we know of no maternity sites for those species in forested settings outside of Acadia National Park on Mount Desert Island.

As far as avoidance recommendations regarding all of these species the list is pretty simple and short. Although not required, attempt to minimize tree removal during the maternity season when the pups are not able to fly and escape a falling tree. This is generally considered the months of June and July. Other than that our known hibernacula are protected and the overarching threat to our listed species of Myotis bat are an invasive fungus that is the causal agent for White-Nose Syndrome.

As for occurrence data, with the exception of eastern small-footed bats these species are widely distributed throughout the state. The current distribution of eastern small footed bats is roughly the southern ½ of the state. Even in a post White-nose environment, both little brown and northern long-eared bats could pop up most any place.
Feel free to contact me if you have any more questions or would like to just talk about bats in greater detail.
Cheers,
Cory
From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com] Sent: Monday, July 17, 2017 4:28 PM

Cory,

**To:** Mosby, Cory E

Thank you for confirming the location of the NLEB hibernacula in Maine. Are you able to provide known locations of maternity roost trees for the NELB? Do you have any documented occurrences near the CMP transmission line project formerly referred to as the Quebec Maine Interconnect (QMI) and now being called **New England Clean Energy Connect Project or "NECEC."** I can provide a map, kmz or shapefile if needed.

Cc: Goodwin, Mark; Perry, John; 'gerry.mirabile@cmpco.com' (gerry.mirabile@cmpco.com)

Additionally, the information request letter provided by MDIFW on 6/5/2017, identified seven other bat species which were state protected: little brown bat, eastern small-footed bat, big brown bat, red bat, hoary bat, silver-haired bat and tri-colored bat. Do you have occurrence data or avoidance recommendations regarding these species generally?

Thank you for your time and I look forward to hearing from you.

Subject: RE: Northern Long Eared Bat Hibernacula

Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483

lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101









in f View my profile on Linked in

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: Mosby, Cory E [mailto:Cory.E.Mosby@maine.gov]

**Sent:** Friday, June 09, 2017 2:58 PM

To: Goodwin, Mark < magoodwin@burnsmcd.com > Cc: Johnston, Lauren A < lajohnston@burnsmcd.com > Subject: RE: Northern Long Eared Bat Hibernacula

Mark,

This email is to confirm that the information I provided you regarding the location of known NLEB hibernacula have not changed from the information provided to you as of 3/2/2017.

Thanks and have a good day.

Cory Mosby

Furbearer and Small Mammal Biologist

Maine Department of Inland Fisheries and Wildlife

650 State St.

Bangor, ME 04401

207-941-4473 office

From: Goodwin, Mark [mailto:magoodwin@burnsmcd.com]

Sent: Friday, June 09, 2017 1:21 PM

**To:** Mosby, Cory E **Cc:** Johnston, Lauren A

Subject: RE: Northern Long Eared Bat Hibernacula

Cory:

Can you confirm that the information you provided below is still current as of today's date?

Thank you,

# Mark Goodwin, CPESC \ Burns & McDonnell

Senior Environmental Scientist

207-517-8482 \ Mobile 207-416-5707

magoodwin@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101



Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and
may contain privileged client communication or privileged work product. If you are not the
intended recipient and receive this communication, please contact the sender by phone at
816-333-9400, and delete and purge this email from your email system and destroy any
other electronic or printed copies. Thank you for your cooperation.
Frame Machae Come F [mailtonCome F Machae Come I Machae Co
From: Mosby, Cory E [mailto:Cory.E.Mosby@maine.gov]  Sent: Thursday, March 02, 2017 8:35 AM
To: Goodwin, Mark < magoodwin@burnsmcd.com > Subject: RE: Northern Long Eared Bat Hibernacula
Hello Mark,
Our northern Long-eared Bat hibernacula are located in Oxford (two hibernacula) and Piscataquis (one hibernacula) counties.
Please feel free to contact me if any other questions arise.
Cheers,
Cheers,
Cory Mosby
Furbearer and Small Mammal Biologist
Maine Department of Inland Fisheries and Wildlife
650 State St.

Bangor, ME 04401

207-941-4473

**From:** Goodwin, Mark [mailto:magoodwin@burnsmcd.com]

Sent: Monday, February 27, 2017 11:50 AM

To: Mosby, Cory E

Subject: Northern Long Eared Bat Hibernacula

Hi Cory:

Please disregard my earlier voicemail. For consultation purposes (documentation) can you please confirm the county locations of known hibernacula of the Northern Long Eared Bat in the state of Maine as of February 27, 2017.

Thank you,

## Mark Goodwin, CPESC \ Burns & McDonnell

Senior Environmental Scientist

207-517-8482 \ Mobile 207-416-5707

magoodwin@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101











Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

#### Johnston, Lauren A

**From:** Johnston, Lauren A

**Sent:** Thursday, August 24, 2017 1:52 PM **To:** 'Perry, John'; 'Mosby, Cory E'

Cc: 'Stratton, Robert D'; Goodwin, Mark; 'Cordes, Robert'; 'Kane, Douglas'; 'Mosby, Cory E';

'gerry.mirabile@cmpco.com' (gerry.mirabile@cmpco.com); 'Marguis, Adam'

**Subject:** RE: NECEC Northern Bog Lemming

Cory and John,

I am following up on the request for more information regarding the northern bog lemming. CMP would like to understand the protective measures which can be implemented in areas which may provide suitable habitat for this species. With better knowledge of management standards, we hope to formulate a plan to potentially avoid or mitigate impacts to the lemming for inclusion into our permit application, which is anticipated to be submitted on 9/22.

Could we schedule a call to discuss further?

#### Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

27 Pearl Street \ Portland, ME 04101

in f View my profile on Linked in

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: Johnston, Lauren A

Sent: Thursday, August 10, 2017 10:51 AM

To: 'Perry, John' <John.Perry@maine.gov>; 'Mosby, Cory E' <Cory.E.Mosby@maine.gov>

**Cc:** Stratton, Robert D <Robert.D.Stratton@maine.gov>; Goodwin, Mark <magoodwin@burnsmcd.com>; Cordes, Robert <Robert.Cordes@maine.gov>; Kane, Douglas <Douglas.Kane@maine.gov>; Mosby, Cory E <Cory.E.Mosby@maine.gov>; 'gerry.mirabile@cmpco.com' (gerry.mirabile@cmpco.com) <gerry.mirabile@cmpco.com>; 'Marquis, Adam'

<adam.marquis@cmpco.com>

Subject: RE: NECEC Northern Bog Lemming

Cory and John,

Thank you for the information provided regarding the northern bog lemming.

CMP would like a better understanding of how the lemming's presence or absence would potentially affect management standards for this species. There is a reference to buffers in the correspondence below, and provided that we have an understanding of their activity and behavior, what type (width, area) of buffers, and what restrictions, or additional or different construction standards may be recommended if a survey indicates presence and if avoidance is not possible? Do we have a known geographic range for this species or do we consider its possible presence for all segments of the project route above 1,000 feet elevation and predominantly sphagnum moss?

Additionally, to further define potential survey areas, would it be appropriate to survey only wetlands designated as WOSS based on the presence of peatland?

Thank you for your time in looking into this!

#### Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

27 Pearl Street \ Portland, ME 04101

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: Perry, John [mailto:John.Perry@maine.gov]

Sent: Thursday, July 27, 2017 3:41 PM

To: Johnston, Lauren A < lajohnston@burnsmcd.com >

**Cc:** Stratton, Robert D < <u>Robert.D.Stratton@maine.gov</u>>; Goodwin, Mark < <u>magoodwin@burnsmcd.com</u>>; Cordes, Robert < <u>Robert.Cordes@maine.gov</u>>; Kane, Douglas < <u>Douglas.Kane@maine.gov</u>>; Mosby, Cory E < <u>Cory.E.Mosby@maine.gov</u>>

Subject: RE: NECEC Northern Bog Lemming

Importance: High

Hi Lauren,

Cory, Bob, and I conferred this morning. Similar to Roaring Brook mayflies and northern spring salamander occurrence data, we have limited occurrence data for northern bog lemming (NBL) throughout the state, and the data we do accumulate tends to be driven by projects being developed in areas of suitable habitat within the geographic range of the species. So, as there have been extremely few projects in this region of the state, our data on species occurrence in this area is also sparse.

We are primarily concerned with any proposed development (clearing, blasting, installation of poles, etc.) in areas at elevations of approximately 1,000 feet or higher which also contain sphagnum—presumably these features were captured during the wetland delineations. While the preexisting protections afforded to streams through buffers could be valuable in protecting NBL populations, known occurrences of the species in the state are all within habitats containing a high percentage of sphagnum in the understory. Therefore, protection of stream buffers is not sufficient as a standalone option. As NBL is a State Threatened species (it has also been recently petitioned for Federal listing under the Endangered Species Act), our recommendations for this species are that the applicant note any potential habitat supporting NBL, and that they perform surveys to document presence/probable absence. Surveys can be conducted in one of two ways: 1) Transects can be walked through NBL habitat and document any presence of run-ways, latrines, and green scat, or 2) if a more definitive method of NBL survey is desired on the part of the applicant, scats can be collected and genetically analyzed to identify if they are NBL, or other species of rodents. Given their secretive nature and rareness, our recommendation is for qualified surveyors with experience searching for evidence of NBL in Maine. Our staff (Cory and our regional wildlife biologists (cc'd), pending their respective schedules) can assist them in expected survey methodology as well as possibly assist them in the field.

For a full description of the methods to conduct the level of genetic work please have surveyors contact Cory (207-941-4473). If evidence of lemmings is present either in the form of green scats, latrines, runways, and/or genetic confirmation, MDIFW will consider the area as occupied and recommend buffers accordingly. Consistent with other projects, MDIFW recommendations will be to avoid these wetlands, or to prove that bog lemmings are not present.

#### John

## John Perry

Environmental Review Coordinator
Maine Department of Inland Fisheries and Wildlife
284 State Street, 41 SHS
Augusta, Maine 04333-0041
Tel (207) 287-5254; Cell (207) 446-5145
Fax (207) 287-6395
www.mefishwildlife.com



Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

From: Mosby, Cory E

Sent: Wednesday, July 26, 2017 3:09 PM

To: Johnston, Lauren A

**Cc:** Stratton, Robert D; Perry, John; Goodwin, Mark **Subject:** RE: NECEC Northern Bog Lemming

Hi Lauren,

I just saw you message. Let me talk about this with some staff and I will get to you ASAP!

#### Cory

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

Sent: Tuesday, July 25, 2017 1:45 PM

To: Mosby, Cory E

**Cc:** Stratton, Robert D; Perry, John; Goodwin, Mark **Subject:** RE: NECEC Northern Bog Lemming

Hi again Cory,

After reading a bit more on the northern bog lemming, would protection of riparian areas be sufficient protect this species? Consistent with CMP's vegetation maintenance program, CMP protects areas within 25 feet of top of bank of all streams and rivers crossed by limiting clearing to capable species with removal done by hand. Herbicide application is not permitted within the 25 foot buffer when surface water is present, and no accumulation of slash will be allowed within 25 feet of the resource. Within 100 feet of the top of bank of all streams and river crossed, no equipment refueling or maintenance will occur, and no herbicides will be stored, mixed or transferred, unless these activities take place on a public road.

Let me know if you think this species warrant additional protective measures.

## Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 laiohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101









Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: Johnston, Lauren A

Sent: Tuesday, July 25, 2017 1:27 PM

To: 'Mosby, Cory E' <Cory, E. Mosby@maine.gov>

Cc: 'Stratton, Robert D' <Robert.D.Stratton@maine.gov>; Perry, John <John.Perry@maine.gov>; Goodwin, Mark

(magoodwin@burnsmcd.com) <magoodwin@burnsmcd.com>

Subject: NECEC Northern Bog Lemming

Good Afternoon Cory,

I am taking a look at the northern bog lemming which is listed as state threatened in Maine. The northern section of the NECEC project may have suitable habitat for this species, however we have no occurrence data associated with the project area. Do you have any recommendations for avoidance of this elusive species?

Thanks very much!

## Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101













Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

#### Johnston, Lauren A

From: Swartz, Beth <Beth.Swartz@maine.gov>
Sent: Thursday, July 27, 2017 12:55 PM
To: Perry, John; Johnston, Lauren A

**Cc:** Stratton, Robert D; Kemper, Keel; Goodwin, Mark

**Subject:** RE: NECEC GIS data question

Follow Up Flag: Follow up Flag Status: Flagged

#### Hi Lauren,

Yes, Keel and John are correct – the Rare Animal records are wood turtles (Special Concern). I also wanted to let you know that I am about three quarters of the way through reviewing the project footprint not only for intersections with listed species under the Reptile, Amphibian, and Invertebrate Group's jurisdiction, but also for potential concerns based on other species records in the vicinity of the project. I hope to have all this information summarized and to John Perry sometime next week. I have also started on the vernal pool reviews. It's going slowly because of other time conflicts, but I still hope to have them done by the end of August per your request. However, we should touch base again in a few weeks to confirm status of that review and how realistic the end of August completion date is at that point. I'll do my best.

#### beth

Beth I. Swartz
Wildlife Biologist
Reptile, Amphibian, and Invertebrate Group
Maine Department of Inland Fisheries and Wildlife
650 State Street
Bangor, ME 04401
(207) 941-4476
mefishwildlife.com | facebook | twitter

Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act.

Information that you wish to keep confidential should not be included in email correspondence.

From: Perry, John

Sent: Thursday, July 27, 2017 12:41 PM

To: Johnston, Lauren A (lajohnston@burnsmcd.com)

Cc: Stratton, Robert D; Kemper, Keel; Swartz, Beth; Goodwin, Mark

Subject: RE: NECEC GIS data question

Hi Lauren,

The rare animal polygons are wood turtle observations, which are a Species of Special Concern, although one of the polygons also slightly overlaps brook floater (State Threatened).

John

# **John Perry**

Environmental Review Coordinator
Maine Department of Inland Fisheries and Wildlife
284 State Street, 41 SHS
Augusta, Maine 04333-0041
Tel (207) 287-5254; Cell (207) 446-5145
Fax (207) 287-6395
www.mefishwildlife.com



Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

From: Stratton, Robert D

Sent: Thursday, July 27, 2017 10:44 AM

To: Perry, John

Subject: FW: NECEC GIS data question

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

Sent: Wednesday, July 26, 2017 12:40 PM

To: Kemper, Keel

Cc: Goodwin, Mark; Stratton, Robert D; Swartz, Beth

Subject: RE: NECEC GIS data question

#### Good afternoon Keel,

I should have included you on this email as it is within Region B. Perhaps you could assist in providing the information requested below.

Thank you.

## Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com 27 Pearl Street \ Portland, ME 04101



Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: Johnston, Lauren A

Sent: Wednesday, July 26, 2017 12:34 PM

To: 'Stratton, Robert D' < <a href="maine.gov">Robert.D.Stratton@maine.gov">Robert.D.Stratton@maine.gov</a>>; Swartz, Beth < <a href="maine.gov">Beth.Swartz@maine.gov</a>>

Cc: Goodwin, Mark (magoodwin@burnsmcd.com) <magoodwin@burnsmcd.com>

Subject: NECEC GIS data question

#### Hi Bob and Beth,

We received GIS information of all known ETS occurrences that intersect with the NECEC project route. There are two features which are identified as "RARE ANIMAL"s and have survey sites for the Sheepscot River in Alna. I suspect they may be a mussel species. Do know which species we are looking at here?

679	Rare Animal	RARE ANIMAL	G4	S4	Special Concern	Shee
2697	Rare Animal	RARE ANIMAL	G4	S4	Special Concern	Shee

## Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101





Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

#### Johnston, Lauren A

From: Johnston, Lauren A

**Sent:** Monday, July 31, 2017 10:29 AM

To: 'Perry, John'

**Cc:** Goodwin, Mark (magoodwin@burnsmcd.com); 'gerry.mirabile@cmpco.com'

(gerry.mirabile@cmpco.com); 'Stratton, Robert D'

**Subject:** NECEC Waterbody Crossing Table

**Attachments:** Avangrid\_NECEC\_Project\_Overview Map.pdf

John:

We are developing a waterbody crossing table for the New England Clean Energy Connect Project (formerly known as QMI) Site Law Application. Can you provide some guidance on a couple of issues?

- 1) We have existing data on all stream crossings that were included in the application for the Maine Power Reliability Program. This would include the area between Surowiec Substation in Pownal north through Lewiston and to where the transmission line corridor enters the town of Jay (see attached map). The data was collected in 2007, 2008, and 2009 includes state water quality classifications and fishery types that were in part the result of consultations at that time. Can we make the assumption that these classifications and fishery types are still valid?
- 2) We currently do not have state water quality classifications or fishery types on the waterbodies in the project corridor from Coopers Mills in Windsor to Maine Yankee in Wiscassett and from the Jay town line north to the Canadian border. We need assistance with making these determinations. I found some state water quality classification information on line at the following link:

http://www.arcgis.com/home/webmap/viewer.html?webmap=778125aba0294e60a8e125d9be4140aa&extent =-74.6491,41.8122,-63.8824,48.2027

The ARCGIS data on this website does not include many of the smaller streams. In these instances, are the classifications and fishery types of the larger waterbodies extended to their tributaries? We are trying to develop as much data on the waterbodies crossed by the project corridors before we begin sending requests to the regional fisheries biologists asking for help in identifying missing classifications and fishery types.

Thanks,

#### Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com 27 Pearl Street \ Portland, ME 04101



Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

#### Johnston, Lauren A

From: Leppold, Adrienne J < Adrienne.J.Leppold@maine.gov>

Sent: Friday, August 04, 2017 3:10 PM

To: Johnston, Lauren A

Subject: RE: NECEC Rusty Blackbird Occurrence

**Follow Up Flag:** Follow up Flag Status: Flagged

Hi Lauren,

Let me look into this a little further. I'll get back to you next week.

Best,

Adrienne

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

Sent: Friday, August 04, 2017 1:10 PM

To: Leppold, Adrienne J

Cc: Stratton, Robert D; Perry, John; Goodwin, Mark Subject: RE: NECEC Rusty Blackbird Occurrence

Good morning Adrienne,

Very close to the Rusty blackbird location, we have Bicknell's thrush habitat that appears to coincide with Coburn Mountain. Please find the attached map. Based our research of this species, it appears to be advantageous to avoid clearing within the habitat between June 1 and August 15 (the nesting/fledgling season). Do you concur?

Thank you.

#### Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101













Proud to be one of FORTUNE's 100 Best Companies to Work For Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: Leppold, Adrienne J [mailto:Adrienne.J.Leppold@maine.gov]

Sent: Thursday, August 03, 2017 4:38 PM

To: Johnston, Lauren A < lajohnston@burnsmcd.com>

Cc: Stratton, Robert D <Robert.D.Stratton@maine.gov>; Perry, John <John.Perry@maine.gov>; Goodwin, Mark

<magoodwin@burnsmcd.com>

Subject: RE: NECEC Rusty Blackbird Occurrence

Hi Lauren,

Thanks for the revised image. That helps a lot. I don't have any concerns with the activities occurring since they appear to be completely out of any likely RUBL habitat, however, it would be good if you could avoid cutting this plot from April 30-June 30 (essentially, avoid the months of May and June). They can nest in the same place each year provided habitat is available and it appears to be from google earth (they like dense, early successional coniferous growth). They are just easily disturbed so noise and commotion nearby could push them out of this area. They are the most neophobic species I have ever worked with. Once cut, though, they shouldn't be affected.

Thanks for checking! Adrienne

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

Sent: Thursday, August 03, 2017 1:56 PM

To: Leppold, Adrienne J

Cc: Stratton, Robert D; Perry, John; Goodwin, Mark Subject: RE: NECEC Rusty Blackbird Occurrence

Adrienne,

Thanks for your quick response. I marked up the attachment I included in the last email with some additional information. I also turned on the wetland layer. Please note that the wetlands shown on the map are delineated only within our corridor and 100-feet on either side. Based on aerial photography, the center point of the polygon appears to have a stream and associated wetlands throughout. Clearing will occur within the light pink shaded areas for a width of 150-feet.

Please let me know if you need additional information, thanks again!

## Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483

lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101







Proud to be one of FORTUNE's 100 Best Companies to Work For Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: Leppold, Adrienne J [mailto:Adrienne.J.Leppold@maine.gov]

Sent: Thursday, August 03, 2017 1:25 PM

To: Johnston, Lauren A < lajohnston@burnsmcd.com>

Cc: Stratton, Robert D <Robert.D.Stratton@maine.gov>; Perry, John <John.Perry@maine.gov>;

Goodwin, Mark < magoodwin@burnsmcd.com> Subject: RE: NECEC Rusty Blackbird Occurrence

#### Lauren.

It appears that this is a single documented occurrence of a breeding pair in 2007, however, after reviewing the google earth imagery, the habitat looks like it would still support birds. Just because I am unfamiliar with this specific area, could you clarify for me, where exactly the transmission line is in relation to the RUBL record and swampy habitat adjacent to the roads. That will help me in answering the rest of your questions.

#### Best, Adrienne

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

Sent: Thursday, August 03, 2017 11:27 AM

To: Leppold, Adrienne J

Cc: Stratton, Robert D; Perry, John; Goodwin, Mark

Subject: NECEC Rusty Blackbird Occurrence

Hi Adrienne,

Can you tell me a little bit more about this (attached) documented occurrence of the Rusty blackbird? Is this considered habitat or is it an individual occurrence? It appears to be already bisected by two roads, Hardscrabble and Grace Pond Road. The transmission line corridor will be cleared to a width of 150-feet at this location and after construction the corridor will managed as shrub/scrub early successional habitat. Clearing activities seem to be the potential concern here, could you tell me if this species if fairly adaptable to human activity? Do they nest in the same location each year? Is there a time of year in which activity should be avoided for this species?

Please let me know if you need further information. Thank you for your assistance.

#### Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

27 Pearl Street \ Portland, ME 04101



Proud to be one of *FORTUNE*'s 100 Best Companies to Work For *Please consider the environment before printing this email.* 

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

From: Johnston, Lauren A

To: "Swartz, Beth"

Cc: Czapiga, Jason: Perry, John; deMaynadier, Phillip: "gerry.mirabile@cmpco.com" (gerry.mirabile@cmpco.com);

"Marquis, Adam"; Goodwin, Mark (magoodwin@burnsmcd.com)

Subject: RE: Part 2: NECEC vernal pool questions
Date: Thursday, August 17, 2017 2:59:00 PM
Attachments: NECEC Vernal Pool List 8.17.17.xlsx

image001.png image002.png image003.png image004.png image005.jpg image006.png

#### Beth.

Thank you for the quick turnaround on this review. I have forwarded the missing information request to Boyle to provide to you directly. I have attached a spreadsheet of all vernal pools within the NECEC corridor to assist you with data entry.

Please contact me with any additional questions as they arise. Thank you.

#### Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com 27 Pearl Street \ Portland, ME 04101

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

**From:** Swartz, Beth [mailto:Beth.Swartz@maine.gov]

Sent: Wednesday, August 16, 2017 4:33 PM

**To:** Johnston, Lauren A < lajohnston@burnsmcd.com>

**Cc:** Czapiga, Jason <Jason.Czapiga@maine.gov>; Perry, John <John.Perry@maine.gov>;

deMaynadier, Phillip < Phillip.deMaynadier@maine.gov>

Subject: Part 2: NECEC vernal pool questions

#### Lauren,

See below for a list of specific questions and missing data on the remainder of the vernal pool assessment forms for NECEC. Once this information is received, MDIFW should be able to complete its review of the entire set of forms that were submitted. Please coordinate and provide MDIFW with a response to these questions as soon as possible.

Be aware that there may be additional questions and requests for missing data during MDIFW's data entry and vernal pool mapping process, which will originate from Jason Czapiga of this office. These steps, as well as formal notification of pool status to both DEP

and the applicant, will not likely be completed prior to your application deadline at the end of August. However, MDIFW will provide both parties with a list of our status determinations by project vernal pool ID. This process could be greatly expedited if the applicant has and could provide us with a spreadsheet listing all of the project pools by their ID number.

## **Specific Items Needing Attention:**

- 1. VP-111-01 (Farmington): missing straddle pool information and % pool surveyed
- 2. VP-111-02 (Farmington): please confirm the number of wood frog egg masses observed on the first visit (form illegible)
- 3. VP-111-03 (Farmington): please send photos of pool if available
- 4. VP-111-04 and VP-111-05 (Farmington): please resend photos of both pools if available; currently the same photo is attached to the forms for both pools (photo does not fit description for VP-111-04)
- 5. VP-114-02: missing township, straddle pool information and % pool surveyed
- 6. VP-116-04: missing township; please confirm the number of spotted salamander egg masses observed (form illegible) may imply only spermataphores observed?
- 7. VP-118-02: missing all but first page of MPRP VP Documentation Form; no data form for 2017 visit
- 8. VP-118-03 (unknown township): please confirm if this pool is a straddle pool and if the 50+ WF egg masses observed were in a portion of the pool that applicant had permission to survey (comments suggest either these or an additional raft of 50+ masses may have been "outside the project area")
- 9. VP-118-04 (unknown township): please confirm if this pool is a straddle pool
- 10. VP-119-03: missing all but first page of MPRP VP Documentation Form; no data form for 2017 visit
- 11. VP-127-04: missing township and second survey date
- 12. VP-128-07: missing second and third survey dates
- 13. VP-130-12: missing second survey date; please confirm wood frog egg mass number on second survey (67?)
- 14. VP-135-03: missing all but first page of MPRP VP Documentation Form; first page is barely legible (too light); no data form for 2017 visit
- 15. VP-135-05: missing all but first page of MPRP VP Documentation Form; first page is barely legible (too light); no data form for 2017 visit
- 16. VP-136-01: missing all but first page of MPRP VP Documentation Form; no data form for 2017 visit
- 17. VP-136-04: missing all but first page of MPRP VP Documentation Form; no data form for 2017 visit
- 18. VP-136-08: missing all but first page of MPRP VP Documentation Form; no data form for 2017 visit
- 19. VP-140-01: missing township
- 20. VP-140-02: missing all but first page of MPRP VP Documentation Form; no data form for 2017 visit
- 21. VP-140-11: missing township and survey date for second visit
- 22. SVP-143-03: form gives two survey dates but data for only one visit is recorded;

- please confirm which date the data corresponds to (appears to be 5/2) and provide missing data for first visit if available
- 23. SVP-169-01: missing survey date
- 24. VP-173-02: missing second survey date
- 25. VP-182-02 (Wiscasset): please confirm if this is a straddle pool and if 100% of the applicant's ownership or control was surveyed; missing data for second survey
- 26. VP- Perron-2 (Lewiston): missing page 3

Please contact me if you have any questions, beth

**Beth I. Swartz Wildlife Biologist**Reptile, Amphibian, and Invertebrate Group
Maine Department of Inland Fisheries and Wildlife
650 State Street
Bangor, ME 04401
(207) 941-4476

mefishwildlife.com | facebook | twitter

Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act.

Information that you wish to keep confidential should not be included in email correspondence.

From: Heather Storlazzi Ward

To: "Swartz, Beth"

Cc: jared@boyleassociates.net; "Chad Flinkstrom"; dprice@boyleassociates.net; Scott@DirigoPartnersLtd.com;

Johnston, Lauren A; "Marquis, Adam"; Goodwin, Mark; gerry.mirabile@cmpco.com; jcampisi@cea-inc.com;

jboyle@boyleassociates.net

Subject: NECEC VP Information

Date: Wednesday, August 23, 2017 2:04:14 PM
Attachments: IFW VP Information NECEC Part 1 Final.pdf
IFW VP Information NECEC Part 2 Final..docx.pdf

Hi Beth,

Attached please find the responses to your list of questions that were emailed in 2 parts. You will see that we answered them in conformance with your emailed lists.

As noted in our phone conversation earlier today, you have received the hardcopies of the photos. We will look into the photos for: Items #2 (VP-66-38), #5 (VP-74-3), and #17 (VP-80-6) and get them to you.

The final item you await are the complete data forms for eleven VPs. Please expect these via email very soon!

Please do not hesitate to contact me if I can be of assistance. Thanks.

#### Heather Storlazzi Ward, NHCWS, CPESC

Boyle Associates Senior Wetland Scientist/Project Manager Cell # 207-317-6630 www.boyleassociates.net

## Johnston, Lauren A

From: Jared Boyle <jared@boyleassociates.net>
Sent: Thursday, August 24, 2017 6:31 AM

**To:** beth.swartz@maine.gov

Cc: 'Heather Storlazzi Ward'; Johnston, Lauren A; 'Marquis, Adam'; gerry.mirabile@cmpco.com; 'Joe

Campisi'; ken@dirigopartnersltd.com; 'Scott Emery'; 'Czapiga, Jason'; phillip.demaynadier@maine.gov

**Subject:** FW: forms for 2nd round of IF&W questions PART 1

**Attachments:** SVP-111-04.pdf; SVP-118-02.pdf; SVP-119-03.pdf; SVP-135-03.pdf; SVP-136-01.pdf

Hi Beth,

Here is the final email of data forms.

Please let me know if there is anything else we can provide to you.

Thank you,

#### **Jared Boyle**

Wetland Scientist/Project Manager (207)274-4222 **Boyle Associates** a subsidiary of **CEA Inc.** 11 Main Street, Ste 7 PMB #185 Westbrook, ME 04092-4786 www.boyleassociates.net

# Johnston, Lauren A

From: Jared Boyle <jared@boyleassociates.net>
Sent: Thursday, August 24, 2017 6:30 AM

**To:** beth.swartz@maine.gov

Cc: 'Heather Storlazzi Ward'; Johnston, Lauren A; 'Marquis, Adam'; gerry.mirabile@cmpco.com; 'Joe

Campisi'; ken@dirigopartnersltd.com; 'Scott Emery'; 'Czapiga, Jason'; phillip.demaynadier@maine.gov

**Subject:** FW: forms for 2nd round of IF&W questions PART 2

**Attachments:** SVP-136-04.pdf; SVP-140-02.pdf; SVP-Perron-02.pdf; VP-111-03.pdf; VP-111-05.pdf; VP-135-05.pdf

#### Hi Beth,

Here is the second of three emails with data forms included.

#### Thanks,

#### **Jared Boyle**

Wetland Scientist/Project Manager (207)274-4222 **Boyle Associates a subsidiary of CEA Inc.** 11 Main Street, Ste 7 PMB #185 Westbrook, ME 04092-4786 www.boyleassociates.net From: Jared Boyle

To: beth.swartz@maine.gov

Cc:

Subject: FW: forms for 1st round of IF&W questions Date: Thursday, August 24, 2017 6:30:38 AM

SVP-PERRON-2.pdf Attachments:

VP-66-101 Full form.pdf VP-86-13-HSW-Updated.pdf

Hi Beth,

This is the first batch of three emails I will send along with the requested data forms attached.

Please let me know if there is anything else that you need from us. Thank you,

## **Jared Boyle**

Wetland Scientist/Project Manager (207)274-4222

Boyle Associates a subsidiary of CEA Inc.

11 Main Street, Ste 7 PMB #185 Westbrook, ME 04092-4786 www.boyleassociates.net

# MEMORANDUM OF CONVERSATION New England Clean Energy Connect (NECEC)

Contact: John Perry, Cory Mosby, and Charlie Todd

Title:BiologistsAffiliation:MDIFW

Date: September 1, 2017

Attendees: Gerry Mirabile, CMP

Lauren Johnston, BMCD Mark Goodwin, BMCD John Perry, MDIFW Cory Mosby, MDIFW Charlie Todd, MDIFW

#### Discussion:

In summary, the teleconference was held to discuss email consultation between Burns & McDonnell (BMCD) and Maine Department of Inland Fisheries and Wildlife (MDIFW) and discuss the agency's recommendations regarding the Northern Bog Lemming (NBL) in the areas of the New England Clean Energy Connect (NECEC) Project.

Lauren Johnston started off stating that CMP would like to know more about management strategies for the NBL, and to learn more about habitat requirements and buffers. Previous recommendations from MDIFW, were to consider all wetlands over 1,000 feet in elevation with a high percentage of sphagnum moss, as potential NBL habitat. Lauren stated there are over 1,200 wetlands which meet the 1,000-foot elevation criteria and the wetland data sheets indicate sphagnum may be listed as a vegetation component, however, it does not give a percentage to determine that sphagnum is the dominant cover type. The data sheets are not digitized, so a hand review of the sheets would be required to narrow the potential habitat areas within the NECEC project area.

Cory Mosby discussed habitat requirements of the NBL: the area immediately surrounding sphagnum bogs with floating vegetation and near areas of spruce forest with a high degree of moss and sedge.

Charlie Todd indicated there are only 5 documented sites in Maine. The NBL was listed under the MESA as a threatened species in 1987, and currently under review federally under ESA. Review of this species could take 5 years for a decision under ESA.

Charlie Todd stated that the NBL range is from southern Somerset County to Piscataquis County and that the project is in the middle of the NBL's apparent range in Maine and that they are typically found at higher elevations in sphagnum rich habitat under conifer cover in cool moist sites. Charlie Todd stated there is little likelihood it would be found in existing corridors and that it is really the portion of the project that is in new corridor.

The MDFIW group indicated they had looked at aerial imagery and the terrain along the new corridor and there are areas of potential habitat with strong conifer components is isolated to higher elevations and that much of the lower elevation habitat consisted primarily of hardwoods. Cory Mosby stated that

there is not a single known NBL occurrence associated with hardwood forests in the state of Maine and that transmission line construction through areas that are primarily hardwood forest is not a larger concern for IF&W.

Mark Goodwin asked if there was a certain aerial cover or depth of sphagnum that may be required for the NBL. MDIFW responded that it varies across the known 5 sites, however at high elevations there is 20-30% sphagnum cover with a high percentage of sedge and krummholz and at lower elevations there is an over-story of spruce with a strong component sphagnum.

Lauren Johnston inquired about the reference to buffers in previous email correspondence. Charlie Todd indicated there is "no inflexible standard" and the only precedent project was a wind power development in which they had a ¼ mile setback. Charlie Todd indicated that there is flexibility based on the project, however they would likely require more extensive buffers than CMP's typical riparian setbacks. Charlie Todd then asked for a topo image showing streams and contours or a digital file that they could import into google earth or their own GIS and stated that they could refine their screening and provide better detail and narrow down the locations they suspect would contain potential habitat. Lauren Johnston indicated that a .kmz file would be provided (note: IF&W has been previously provided digital route data). Charlie Todd indicated that the higher elevation areas near Parlin Pond, Johnston Mountain, and Coburn Mountain are areas they would focus on.

Gerry Mirabile stated that given that the route is well established and there is limited flexibility of the corridor itself but that the pole locations can be sited in a manner to minimize and avoid impacts with limits (e.g., topography, etc.) and asked, if we knew of NBL occurrence in a particular area, what would IF&W ask CMP to do to minimize impact? Charlie Todd responded that the approach would be to avoid, minimize, and mitigate in that sequence. Generally, MDFIW did not have specific construction standards, however they did indicate that a discovery would "not be a project stopper."

Mark Goodwin stated that spans between structures are approximately 900-feet for the HVDC line, in which MDIFW indicated that would be a big help in reducing potential impact to the species. If there is an occurrence, Charlie Todd stated that IF&W would want to maintain the habitat to the greatest extent practicable but that they would have to develop mitigative strategies upon identification of an occurrence because there is currently no precedence for mitigation. Off-site mitigation would be possible but not likely due to the limited number of known occurrences. Charlie Todd intimated that a research study of the species may be a form of potential mitigation.

Gerry Mirabile asked if there was a distinction between direct and indirect (ie. permanent fill from structures vs. temporary fill from access) impacts. Charlie Todd stated that he wasn't sure that he could answer that and that it might not make sense to make that assessment until IF&W had looked at the project route more closely and that if habitat was identified fine tuning of access and pole placement could possibly occur at that time. Gerry also stated that indirect impact through the placement of crane mats would be the more likely impact as opposed to structure installation.

Charlie Todd asked if the new corridor was parallel to existing roads. Lauren Johnston responded that the areas in the greenfield portions of the corridor are intensively managed for timber and that there were logging roads throughout the area.

At the close of the conversation, MDIFW stated they will review the .kmz file to target areas in which further analysis should be conducted for potential habitat. BMCD will review the wetland data sheets for those areas to try to determine wetland types and the presence of sphagnum and the possible NBL habitat.

MDFIW stated they will provide quick feedback regarding the aerial review and the group will continue to work with CMP and the project.

From: Johnston, Lauren A

To: "Swartz, Beth"

Cc: Czapiga, Jason: Perry, John; deMaynadier, Phillip: "gerry.mirabile@cmpco.com" (gerry.mirabile@cmpco.com);

Marquis, Adam; Goodwin, Mark

Subject: RE: NECAC vernal pool status determinations

Date: Friday, September 08, 2017 3:24:00 PM

Attachments: <u>image019.ipg</u>

image020.jpg image021.jpg image022.jpg image023.jpg image024.jpg image003.png image0011.png image011.png image014.png image016.jpg image018.png

Thank you Beth. Your efforts to help us meet our application submission deadline are very much appreciated.

We will incorporate the determinations into our GIS data and utilize this initial information to help us accurately assess impacts and mitigation.

As you noted below, the spreadsheet which we previously provided included <u>all</u> pools within the project corridors. For the purposes of MDIFW's review, the forms provided by Boyle Associates included natural pools which met the egg mass criteria and excluded corps jurisdictional pools. When we pulled the spreadsheet from our GIS database, there was not an easy way to differentiate so we included all types. In our review of the project, we will include and evaluate pools that have been previously designated SVP's and PSVP's.

Thanks again for your assistance and we will look forward to the notification letters.

#### Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483 lajohnston@burnsmcd.com \ burnsmcd.com 27 Pearl Street \ Portland, ME 04101

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any other electronic or printed copies. Thank you for your cooperation.

**From:** Swartz, Beth [mailto:Beth.Swartz@maine.gov] **Sent:** Wednesday, September 06, 2017 11:27 AM **To:** Johnston, Lauren A <a href="mailto:lajohnston@burnsmcd.com">lajohnston@burnsmcd.com</a>

**Cc:** Czapiga, Jason <Jason.Czapiga@maine.gov>; Perry, John <John.Perry@maine.gov>; deMaynadier, Phillip.deMaynadier@maine.gov>; 'gerry.mirabile@cmpco.com'

(gerry.mirabile@cmpco.com) <gerry.mirabile@cmpco.com>; Marquis, Adam <adam.marquis@cmpco.com>; Goodwin, Mark <magoodwin@burnsmcd.com>

**Subject:** NECAC vernal pool status determinations

Lauren,

Attached is a spreadsheet listing MDIFW's determinations for the ~160 vernal pool assessment forms submitted on behalf of the NECEC project. While I was careful to avoid transcription errors, please be aware that the official status of these pools is still to be documented by DEP in notifications to the applicant. This likely will not occur for several weeks or more, as all of the data must now be mapped and entered into the vernal pool database, and notification letters prepared.

We are assuming that the significant number of pools listed on the spreadsheet you provided for which assessment forms were NOT submitted are either not part of the project or perhaps are confirmed man-made pools that did not meet egg mass criteria – and thus were not included in the package. If this is not the case and there are pools missing from our review, you will need to provide the missing forms to MDIFW.

Please also be aware that there are a number of vernal pools previously designated as Significant or Potentially Significant by other initiatives that fall within the NECAC project area boundaries – some of which may overlap with NECAC pools. MDIFW will include these existing SVPs/PSVPs in our review of the project, in addition to the pools submitted by NECAC.

Feel free to contact me if you have any questions, beth swartz

Beth I. Swartz Wildlife Biologist

Reptile, Amphibian, and Invertebrate Group Maine Department of Inland Fisheries and Wildlife 650 State Street Bangor, ME 04401 (207) 941-4476

mefishwildlife.com | facebook | twitter

Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act.

Information that you wish to keep confidential should not be included in email correspondence.

From: Johnston, Lauren A [mailto:lajohnston@burnsmcd.com]

Sent: Tuesday, September 05, 2017 11:36 AM

To: Swartz, Beth

Cc: Czapiga, Jason; Perry, John; deMaynadier, Phillip; 'gerry.mirabile@cmpco.com'

(gerry.mirabile@cmpco.com); Marquis, Adam; Goodwin, Mark

**Subject:** RE: Part 2: NECEC vernal pool questions

Good Morning Beth,

Could you please provide a status update on the NECEC vernal pool determinations? Thank you for your help on this effort.

## Lauren Johnston, CPESC \ Burns & McDonnell

Senior Environmental Scientist

Mobile 207-272-7294 Office 207-517-8483

lajohnston@burnsmcd.com \ burnsmcd.com

27 Pearl Street \ Portland, ME 04101

Proud to be one of FORTUNE's 100 Best Companies to Work For

Please consider the environment before printing this email.

other electronic or printed copies. Thank you for your cooperation.

This email and any attachments are solely for the use of the addressed recipients and may contain privileged client communication or privileged work product. If you are not the intended recipient and receive this communication, please contact the sender by phone at 816-333-9400, and delete and purge this email from your email system and destroy any

Free total Docal |
To Article Do

You would use this same app

Don Witheritt
Descure, Drivion of Environmental Assessment
Bureau of Water Quality
Makin Department of Environmental Protection
17 State House Station, Augusta, Mr. 04333
(207) 215-0733
doublit withors Phrasimon pay

From: Johnston, Learen A [mallosiqchesten@bersencecom]
Sent: Twester, September 12, 2017 801 AM
The Withersit, Double 4 - Chould 1 Withersit@marine govo
CC Gooders, Mark - composition@burnercd.com> Sents, Learen-cjmorin@burnercd.com>
Sulpite: TW. Withersity classification for PRCCP Project.

Many of the materbodies which intersect the project do not have State water classification designations and are bibutaries to larger streams. In an effort to fill out the table, can you tell me if it is appropriate to assume that if the main stream has a tate classification, that we can easign that same level of classification to any associated tributaries. An example of one scenario:

Segment	Town	MDIFW Region	FeatureID	Stream Name	Ave. Stream Width (ft)	State Water Class	Atlantic Salmon Gulf of Maine DPS (Y/N)	Atlantic Salmon Critical Mabitat (Y/N)	Brook Trout (Y/N)	Distance to Nearest Structure (ft)	Width of Existing Maintained Corridor (ft)	Width of Additional Corridor Clearing (ft)	Temporary Equipment Crossing
1	Appleton Twp	£	ISTR-15-07	Gold Brook	15.0	A	Υ	N	Likely Brook Trout Habit*	248.2	0.0	150.0	N
1	Appleton Twp	£	ISTR-15-09	Trib. to Gold Brook	2.0		Y	N	Likely Brook Trout Habit*	223.5	0.0	150.0	N
- 1	Appleton Twp	£	ISTR-15-10	Trib. to Gold Brook	3.0		Υ	N	N/A	257.5	0.0	150.0	N
- 1	Appleton Twp	£	ISTR-15-12	Trib. to Gold Brook	2.0		Υ	N	N/A	297.1	0.0	150.0	N
1	Appleton Twp	£	ISTR-15-18	Trib. to Gold Brook	2.0		N	N	N/A	382.3	0.0	150.0	N
1	Appleton Twp	£	PSTR-15-06	Gold Brook	0.0	А	Y	N	Likely Brook Trout Habit*	186.5	0.0	150.0	N
1	Appleton Twp	£	PSTR-16-01	Gold Brook	25.0	А	Υ	N	Likely Brook Trout Habit*	32.1	0.0	150.0	N
1	Appleton Twp	£	PSTR-16-07	Trib. to Gold Brook	10.0	А	Υ	N	Likely Brook Trout Habit*	178.0	0.0	150.0	N
1	Appleton Twp	£	PSTR-16-10	Trib. to Gold Brook	3.0	А	Υ	N	Likely Brook Trout Habit*	313.1	0.0	150.0	N
1	Appleton Twp	£	PSTR-16- 101	Trib. to Gold Brook	3.0	A	Y	N	Likely Brook Trout Habit*	225.5	0.0	150.0	N
1	Appleton Twp	£	PSTR-16-14	Trib. to Gold Brook	4.0	A	Y	N	Likely Brook Trout Habit*	175.6	0.0	150.0	N

Please give me a call if you'd like to discuss further. Thanks!

Lauren Johnston, CPESC 1 Burns & McDovrell
Some Forwarden Sower

Anne State St

From: Parry, John [matte other Parryllmann and Seet: Monday, September 11, 2017 503 PM. To: Inhanto, Lucard Adjustment Burnaria camp Car Monin, James (<u>Innovitation and Camps</u>); Goodwin, Mark (<u>Innavitation Blassment camp</u>) Subject BC: Waterdock (Lassification for MCCC Project

As far as brook trout: yes, assume if brook trout have been mapped in the larger waterbodies that they will also be in the smaller tributaries.

From: Johnston, Lauren A (malife-lajohnston/Blummond.com)
Sent: Friday, September 08, 2017 2:58 PM
To: Perry, John
Co: Morin, James; Coodwin, Mark
Subject: Waterbody classification for MCCEC Project

Many of the waterbodies which intersect the project do not have State water classification designations and are tributaries to larger streams. In an effort to fill out the table, can you tell me if it is appropriate to ass

		MDIFW			Ave. Stream Width	State Water	Atlantic Salmon Gulf of Maine DPS	Atlantic Salmon Critical Habitat		Distance to Nearest Structure	Width of Existing Maintained Corridor	Width of Additional Corridor Clearing	Temporary Equipment
Segment	Town	Region	FeatureID	Stream Name	(ft)	Class	(Y/N)	(Y/N)	Brook Trout (Y/N)	(ft)	(ft)	(ft)	Crossing
1	Appleton Twp	E	ISTR-15-07	Gold Brook	15.0	A	Y	N	Likely Brook Trout Habit*	248.2	0.0	150.0	N
1	Appleton Twp	E	ISTR-15-09	Trib. to Gold Brook	2.0		Y	N	Likely Brook Trout Habit*	223.5	0.0	150.0	N
1	Appleton Twp	£	ISTR-15-10	Trib. to Gold Brook	3.0		Υ	N	N/A	257.5	0.0	150.0	N
1	Appleton Twp	£	ISTR-15-12	Trib. to Gold Broak	2.0		Υ	N	N/A	297.1	0.0	150.0	N
- 1	Appleton Twp	£	ISTR-15-18	Trib. to Gold Brook	2.0		N	N	N/A	382.3	0.0	150.0	N
1	Appleton Twp	E	PSTR-15-06	Gold Brook	0.0	A	Y	N	Likely Brook Trout Habit*	186.5	0.0	150.0	N
1	Appleton Twp	£	PSTR-16-01	Gold Brook	25.0	А	Y	N	Likely Brook Trout Habit*	32.1	0.0	150.0	N
1	Appleton Twp	£	PSTR-16-07	Trib. to Gold Brook	10.0	A	Y	N	Likely Brook Trout Habit*	178.0	0.0	150.0	N
1	Appleton Twp	£	PSTR-16-10	Trib. to Gold Brook	3.0	A	Y	N	Likely Brook Trout Habit*	313.1	0.0	150.0	N
1	Appleton Twp	£	PSTR-16- 101	Trib. to Gold Brook	3.0	A	Y	N	Likely Brook Trout Habit*	225.5	0.0	150.0	N
1	Appleton Twp	£	PSTR-16-14	Trib. to Gold Brook	4.0	A	Y	N	Likely Brook Trout Habit*	175.6	0.0	150.0	N

Lauren Johnston, CPESC \ Burns & McDonnell
Seator Environmental Scantar
Makka 20727-727-92 diese 207-17-4423
laphastand Barramend.com > barramend.com
27 Pearl Deser \ Deserta \ Marcamend.com
27 Pearl Deserta \ Deserta \ Marcamend.com
28 Pearl Deserta \ Marcamend.com
29 Pearl Deserta \ Marcamend.com
20 Pearl Deserta \ Marcamend.co

Please consider the environment before printing this email.

This email and say substitudents have saidly for the use of the addressed projects and
envy contain printinged client communication or privileged with product. Plyou are not the
environded recipies and encoure this communication, please contain the aeroded by plane as at
814-1023-9400, and delies and pruge this email from your email system and destroy any
other electrication or please deposit. These you for your competitions.

# **Exhibit 7-2: Deer Wintering Areas within NECEC Project**

Table 7-2: DWA's Intersected by the NECEC Project Corridor<sup>1</sup>

Segment	CMP Line Section	Town	MDIFW ID	Value/Status	Total DWA Acreage	Acreage in the NECEC Corridor <sup>2</sup>	Acreage of Habitat Conversion in DWA	Associated Wetland(s)	Map ID
2	3006	Moscow	060134	Indeterminate	147.5	12.3	8.3	WET-74-102, WET-74-103	163, 164, 165
3	3006	Embden	060143	Indeterminate	275.8	56.4	3.2	WET-82-04, WET-82-04, WET-82-01, WET-82-02, WET-82-03, WET-82-10, WET-82-10, WET-82-07, WET-82-06, WET-82-08, WET-82-09, WET-83-21, WET-83-22, WET-82-05, WET-82-08	180, 181, 182, 183
3	3006	Starks (E)	060068	Indeterminate	971.5	25.7	6.6	WET-96-05, WET-96-07, WET-96-09, WET-96-10, WET-97-01, WET-97-02, WET-97-03	213, 214, 215
3	3006	Starks (W)	060068	Indeterminate	799.2	23.6	4.7	WET-99-05, WET-99-04, WET-99-02, WET-99-01, WET-100-01	219, 220, 221
3	3006	Farmington	060058	Indeterminate	480.0	26.7	5.5	WET-103-11, WET-104-01, WET-104-02, WET-104-03, WET-104-05, WET-104-01	229, 230, 231
3	3006	Livermore Falls	020521	Indeterminate	325.3	0.1	0		281, 282, 283, 284, 285
3	3006	Leeds	020002	Indeterminate	325.4	8.6	3.1	WET-133-02, WET-133-03, WET-133-04, WET-133-05	294, 295

Segment	CMP Line Section	Town	MDIFW ID	Value/Status	Total DWA Acreage	Acreage in the NECEC Corridor <sup>2</sup>	Acreage of Habitat Conversion in DWA	Associated Wetland(s)	Map ID
3	3006	Leeds	020984	Indeterminate	322.7	30.1	5.6	WET-135-05, WET-135-05, WET-135-07, WET-135-06, WET-135-08, WET-135-09, WET-135-06, WET-135-07, WET-135-07, WET-136-01	299, 300, 301
3	3006	Leeds	020983	Indeterminate	657.2	41.1	7.3	WET-136-07, WET-136-08, WET-136-10, WET-136-09, WET-136-11, WET-136-11, WET-136-11, WET-136-09, WET-136-09, WET-137-03, WET-137-04, WET-137-02, WET-137-07, WET-137-05, WET-137-10, WET-137-10, WET-137-06, WET-137-06, WET-137-02	302, 303, 304
4	62/64	Lewiston	000255	Indeterminate	11.7	5.1	0	WET-150-11	333, 334
4	62/64	Lewiston	000247	Indeterminate	66.9	4.0	0	WET-151-09, WET-152-01, WET-152-01	336, 337
4	62/64	Durham	000101	Indeterminate	50.4	4.8	0	WET-156-09, WET-156-07, WET-156-08	346, 347
4	62/64	Durham	000094	Indeterminate	196.7	1.2	0	WET-158-03	350, 351
5	3027	Windsor	020865	Indeterminate	212.3	16.5	0	WET-165-03, WET-165-03, WET-165-02, WET-165-01	409, 410, 411, 412
5	3027	Whitefield	020080	Indeterminate	345.1	31.2	0	WET-168-05, WET-168-05, WET-169-01, WET-169-01, WET-169-02, WET-169-02	401, 402, 403, 404

Segment	CMP Line Section	Town	MDIFW ID	Value/Status	Total DWA Acreage	Acreage in the NECEC Corridor <sup>2</sup>	Acreage of Habitat Conversion in DWA	Associated Wetland(s)	Map ID
5	3027	Alna (N)	020050	Indeterminate	1,395.3	102.8	0	WET-178-06, WET-178-06, WET-179-03, WET-179-03, WET-179-02, WET-179-01, WET-180-02, WET-180-01, WET-180-03, WET-180-04	375, 376, 377, 378, 379, 380, 381, 382
5	3027	Alna (S)	020050	Indeterminate	523.3	11.1	0	WET-181-01, WET-181-03, WET-181-02	375, 376
5	3027	Wiscasset	020176	Indeterminate	235.2	27.0	0	WET-183-06, WET-183-06, WET-183-05, WET-183-04, WET-183-03	370, 371, 372
5	3027	Wiscasset (N)	020626	Indeterminate	55.0	2.3	0	WET-184-07, WET-184-07	365, 366, 367, 368
5	3027	Wiscasset (S)	020626	Indeterminate	37.4	2.0	0	WET-184-07, WET-184-07	365, 366, 367, 368
5	3027	Wiscasset	020583	Indeterminate	163.8	23.8	0	WET-187-01, WET-187-02, WET-187-02, WET-187-09, WET-187-04, WET-187-04	362, 363

<sup>1.</sup> There are no DWA's in the vicinity of the Merrill Road Converter Station or the Fickett Road Substation.

<sup>2.</sup> Clearing is defined as converting forest to maintained early successional habitat.

# Exhibit 7-3: IWWH within NECEC Project

Exhibit 7-3: IWWH's Intersected by the NECEC Project Corridor <sup>1</sup>

Segment	CMP Line Section	Town	MDIFW ID	Value/ Status	Total IWWH Acreage	Acreage in the NECEC Corridor	Acreage of Habitat Conversion in IWWH <sup>2</sup>	Associated Wetland(s)	Map ID
1	3006	T5 R7 BKP WKR	UMO-6578	Moderate	63.4	0.3	0	WET-20-05, WET-20- 5-RR2, WET-20-05, WET-20-5-RR2	46
1	3006	T5 R7 BKP WKR	UMO-6585	Moderate	25.9	2.4	0.7	WET-21-11, WET-21- 09, WET-21-12, WET- 21-09	47, 48
1	3006	T5 R7 BKP WKR / Bradstreet Twp / Attean Twp	UMO-7060	Moderate	3023.2	7.0	3.6	WET-24-10, WET-24- 10, WET-24-10, WET- 24-10	54, 55, 56
1	3006	Bradstreet Twp	UMO-7358	Moderate	49.5	1.3	0	WET-SR-EXT-30-05	68, 69
1	3006	Bradstreet Twp	UMO-7541	Moderate	111.9	6.7	3.7	WET-26-01, WET-26- 02, WET-26-08, WET- 26-08, WET-26-01, WET-26-02, WET-26- 02	58, 59
1	3006	Bradstreet Twp / Upper Enchanted Twp	UMO-7591	Moderate	55.0	5.9	3.1	WET-25-02, WET-25- 03, WET-25-02, WET- 25-03	58
2	3006	Bald Mountain Twp T2R3	UMO-9415	Moderate	143.4	10.7	2.7	WET-63-07, WET-64- 03, WET-64-05, WET- 64-04	141, 142, 143
2	3006	Bald Mountain Twp T2R3	UMO-11612	High	121.6	2.9	0	WET-79-03	176, 177

Segment	CMP Line Section	Town	MDIFW ID	Value/ Status	Total IWWH Acreage	Acreage in the NECEC Corridor	Acreage of Habitat Conversion in IWWH <sup>2</sup>	Associated Wetland(s)	Map ID
3	3006	Embden	Iwwh070754	Moderate	66.8	10.0	1.4	WET-85-01, WET-85- 03	187, 188
3	3006	Jay	Iwwh070612	High	65.3	6.3	1.8	WET-118-03	261, 262
3	3006	Starks	Iwwh070546	Moderate	72.4	1.8	0.6	WET-97-07	216
3	3006	Starks	Iwwh201128	Moderate	83.1	6.8	1.3	WET-97-01, WET-97- 02	214, 215
3	3006	Starks	Iwwh070536	Moderate	62.3	0.5	0	WET-100-04, WET- 100-05	220, 221, 222
3	3006	Industry	Iwwh070294	Moderate	107.8	10.5	0.7	WET-101-04, WET- 102-03	224, 225, 226
3	3007	Lewiston	Iwwh202389	Moderate	22.6	11.1	2.2	WET-145-06, WET- 145-05, WET-145-05	321, 322
3	3006	Greene	Iwwh202778	Moderate	30.5	6.1	1.1	WET-140-06	310
5	3027	Whitefield	Iwwh204792	Moderate	34.0	12.0	0	WET-167-01, WET- 167-01	406, 407
5	3027	Wiscasset	TWWH ID 0	Not reported	302	0.2	0	WET-188-17, WET- 188-17	359

<sup>1.</sup> There are no IWWH's in the vicinity of the Merrill Road Converter Station or the Fickett Road Substation.

<sup>2.</sup> Clearing is defined as converting forest to maintained early successional habitat.

# **Exhibit 7-4: Sampling Protocol for Vernal Pools**

2017 Resource Delineation Protocol (including previously mapped resources)
Jim Boyle Telephone Conversations with Jay Clement, Mike Mullen and Philip De Maynardier
April 2017

For new project areas not previously mapped, complete paired-plot (one wetland, one upland) data forms when you encounter meaningful changes in vegetative cover types or meaningful changes in soil, e.g., red maple swamp (and associated lower vegetative strata) with mineral soil shifting to black spruce swamp with organic soil, or similar changes. This method should normally result in a data forms for every running mile or so of transmission line, on average. The burden is on the wetland scientist to insure data forms are representative of the types of wetlands delineated across the entire project. In the project narrative describing the field delineation, the wetland scientist should group the wetland types, describe how the work was done, document that data forms were completed for each wetland type. For example, "Of thirty wetlands, ten were red maple swamps, three were black spruce swamps, ten were alder shrub wetlands, etc." Data forms and representative photographs should be submitted with project applications.

For portions of the project where wetlands and vernal pools were previously mapped, we will obtain data sheets and shapefiles of those mapped resources. We will install the shapefiles in GPS units, and verify five wetlands per mile, and verify one full Corps data form per mile. If we find a discrepancy, we will document our new resource delineation with a data forms, and flag the resource boundary as we see it now. We might find areas that we delineate now that were not previously delineated, or we might find the reverse. In either case, we will document our work. We will hang a flag at each verified resource with the resource number written on the flag, GPS-locate the flag and take a photograph. The wetland scientist will note his or her name on the data sheet and the date of the field visit. We will not flag or GPS-locate resource boundaries if we agree with them.

### **Vernal Pools**

- If a VP was uploaded to IF&W GIS data layer, and if natural, no need to check.
- If a VP was uploaded to IF&W GIS data layer, but not natural, need to verify that the VP is not natural, and provide this documentation to IF&W and request removal, including a letter documenting removal, if approved.
- If a VP is observed but was not previously mapped, we will survey the VP following our normal full survey protocol.
- If a VP was previously mapped/surveyed (whether SVP or not) but not uploaded to IF&W data layer, we will field verify (spot check) the VP, including egg mass counts.
  - Maine SVP = meets state definition, has "significant" egg masses, etc.
  - Maine Non-SVP = meets state definition, doesn't have "significant" egg masses, etc.
  - Corps Priority Pool = In a wetland, not natural, has "significant" egg masses, etc.
  - Corps Pool = In a wetland, not natural, doesn't have "significant" egg masses, etc.
  - Spawning Area = Not in a wetland, not natural.

## **Exhibit 7-5: Significant Vernal Pool Habitat**

### Footnotes and Definitions for Vernal Pool Tables (Exhibit 7-5 and Exhibit 7-6)

### **Footnotes**

1. **NVP** Natural Vernal Pool

ABA Amphibian Breeding Area SVP Significant Vernal Pool

**PSVP** Potentially Significant Vernal Pool

2. **NSP** Non-Significant Vernal Pool- Formal determination by MDIFW

**ND** No Determination- No formal determination by MDIFW

- 3. Tree clearing within 250-feet (Y/N) indicates forest conversion will occur within the vernal pool critical terrestrial habitat.
- 4. "Pool Area" is defined as the pool depression and does not include the vernal pool habitat.

### **Definitions**

**ACOE Maine Programmatic General Permit** - Vernal Pools - Temporary to permanent bodies of water occurring in shallow depressions that fill during the spring and fall and may dry during the summer. Vernal pools have no permanent or viable populations of predatory fish. Vernal pools provide the primary breeding habitat for wood frogs, spotted salamanders, blue spotted salamanders, and fairy shrimp, and provide habitat for other wildlife including several endangered and threatened species.

Maine NRPA Chapter 335 - A vernal pool, also referred to as a seasonal forest pool, is a natural, temporary to semi-permanent body of water occurring in a shallow depression that typically fills during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet or outlet and no viable populations of predatory fish. A vernal pool may provide the primary breeding habitat for wood frogs (Rana sylvatica), spotted salamanders (Ambystoma maculatum), blue-spotted salamanders (Ambystoma laterale), and fairy shrimp (Eubranchipus sp.), as well as valuable habitat for other plants and wildlife, including several rare, threatened, and endangered species. A vernal pool intentionally created for the purposes of compensatory mitigation is included in this definition. (Excerpt from Maine NRPA Chapter 335. For the full significant vernal pool habitat definition, please refer to the law.)

### Maine NRPA Chapter 335 Significant vernal pool habitat identification criteria:

1.) Abundance. Any one of or combination of the following species abundance levels, documented in any given year, determine the significance of a vernal pool habitat.

Fairy shrimp - presence in any life stage

Blue-spotted salamanders - presence of 10 or more egg masses

Spotted salamanders - presence of 20 or more egg masses

Wood frogs - presence of 40 or more egg masses

- 2.) Rarity. A pool that has documented use in any given year by a rare species, or state-listed endangered or threatened species that commonly requires a vernal pool to complete a critical portion of its life history is part of a significant vernal pool habitat.
- "Significant vernal pools" or "SVPs" included only pools of natural origin that met any of the above listed Significant Vernal Pool identification criteria.
- "Potentially significant vernal pools" or "PSVPs" included pools of natural origin which may meet the Significant Vernal Pool identification criteria but which were not surveyed during the appropriate time of year or that "straddle" property boundaries and permission was not obtained to survey the entire pool. These pools may be surveyed in the next available survey season and until such time that they are surveyed, will be treated as significant. These pools are included on **Exhibit 7-5**.
- "Natural vernal pools" or "NVPs" included only pools of natural origin that did not meet the criteria required to meet the NRPA definition of a significant vernal pool (i.e., egg mass numbers, fairy shrimp, rare species).
- "Amphibian breeding areas" or "ABAs" are man-made pools. Some of these pools would meet the NRPA definition of "significance" if they were natural in origin.

Exhibit 7-5 Significant Vernal Pools and Potentially Significant Vernal Pools

Segment	Town	Pool_ID	Type <sup>1</sup> (SVP, PSVP, NVP)	MDIFW Determination <sup>2</sup>	Clearing w/in 250 feet <sup>3</sup>	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet
1	Appleton Twp	PSVP-11-1	PSVP	ND	N	24	27
1	Johnson Mountain Twp	PSVP-40-6	PSVP	PSVP	Y	4137	91
1	Appleton Twp	PSVP-15-1	PSVP	ND	Y	676	35
1	T5 R7 BKP WKR	PSVP-20-3	PSVP	ND	N	18363	46, 47
1	Johnson Mountain Twp	PSVP-39-3	PSVP	ND	Y	1090	89
1	Johnson Mountain Twp	PSVP-40-5	PSVP	ND	Y	5552	91
1	Johnson Mountain Twp	PSVP-41-2	PSVP	ND	Y	2587	92
1	West Forks Plt	PSVP-43-2	PSVP	ND	Y	1956	98
1	West Forks Plt	PSVP-46-2	PSVP	ND	N	13880	101
1	West Forks Plt	PSVP-48-4	PSVP	ND	Y	454	105
1	West Forks Plt	PSVP-49-10	PSVP	ND	Y	798	107
1	West Forks Plt	PSVP-49-12	PSVP	ND	Y	5162	107
1	Skinner Twp	PSVP-LT-3	PSVP	ND	Y	2925	11, 12
2	Moscow	PSVP-72-102	PSVP	SVP	Y	141	159
2	Moscow	PSVP-222-09	PSVP	ND	Y	4239	152
3	Jay	PSVP-117-02	PSVP	PSVP	Y	10517	258
3	Leeds	PSVP-136-04	PSVP	PSVP	Y	4345	302
3	Farmington	VP-111-03	NVP	PSVP	Y	2381	245, 246
3	Concord Twp	VP-81-05	NVP	PSVP	Y	1079	180
3	Industry	PSVP-101-02	PSVP	SVP	Y	309	225
3	Industry	PSVP-101-03	PSVP	SVP	Y	22982	225
3	Industry	PSVP-102-02	PSVP	SVP	Y	649	226
3	Industry	PSVP-102-03	PSVP	SVP	Y	4370	226
3	Industry	PSVP-104-02	PSVP	SVP	Y	4173	230
3	Farmington	PSVP-111-04	PSVP	SVP	Y	3388	246
3	Jay	PSVP-116-04	PSVP	SVP	Y	15369	257
3	Jay	PSVP-118-02	PSVP	SVP	Y	1791	261
3	Jay	PSVP-119-03	PSVP	SVP	Y	1803	264
3	Livermore Falls	PSVP-125-01	PSVP	SVP	Y	2038	276
3	Leeds	PSVP-130-08	PSVP	SVP	Y	18626	288

Exhibit 7-5 Significant Vernal Pools and Potentially Significant Vernal Pools

Segment	Town	Pool_ID	Type <sup>1</sup> (SVP, PSVP, NVP)	MDIFW Determination <sup>2</sup>	Clearing w/in 250 feet <sup>3</sup>	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet
3	Leeds	PSVP-136-01	PSVP	SVP	Y	35243	301
3	Leeds	PSVP-136-02	PSVP	SVP	Y	3957	301, 302
3	Leeds	PSVP-137-06	PSVP	SVP	Y	1554	304
3	Greene	PSVP-140-02	PSVP	SVP	Y	1026	309, 310
3	Greene	PSVP-140-04	PSVP	SVP	Y	16947	311
3	Greene	PSVP-143-03	PSVP	SVP	Y	1657	317
3	Concord Twp	PSVP-75-101	PSVP	SVP	Y	188	167
3	Concord Twp	PSVP-75-102	PSVP	SVP	Y	448	167
3	Concord Twp	PSVP-80-03	PSVP	SVP	Y	4547	177
3	Embden	PSVP-83-02	PSVP	SVP	Y	14556	183
3	Embden	PSVP-83-03	PSVP	SVP	Y	561	183
3	Embden	PSVP-83-04	PSVP	SVP	Y	6104	183
3	Embden	PSVP-85-01	PSVP	SVP	Y	2989	189
3	Embden	PSVP-86-04	PSVP	SVP	Y	16971	191
3	Embden	PSVP-86-05	PSVP	SVP	Y	7062	191
3	Embden	PSVP-86-09	PSVP	SVP	Y	6618	190
3	Anson	PSVP-92-01	PSVP	SVP	Y	2341	203
3	Lewiston	PSVP-PERRON-2	PSVP	SVP	N	9460	320
3	Leeds	VP-135-03	NVP	SVP	Y	13353	298, 299
3	Leeds	VP-135-05	NVP	SVP	Y	1519	299
3	Jay	PSVP-118-03	PSVP	ND	Y	2072	262
3	Greene	PSVP-144-02	PSVP	ND	Y	28	320
3	Concord Twp	PSVP-80-01	PSVP	ND	Y	1810	178
4	Lewiston	SVP-147-08	SVP	ND	N	3363	326
4	Lewiston	SVP-148-06	SVP	ND	N	7831	328
4	Pownal	SVP-161-12	SVP	ND	N	28	356, 357
4	Durham	PSVP-158-01	PSVP	ND	N	7414	349, 350

Exhibit 7-5 Significant Vernal Pools and Potentially Significant Vernal Pools

Segment	Town	Pool_ID	Type <sup>1</sup> (SVP, PSVP, NVP)	MDIFW Determination <sup>2</sup>	Clearing w/in 250 feet <sup>3</sup>	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet
5	Windsor	PSVP-162-01	PSVP	SVP	N	6050	-
5	Whitefield	PSVP-169-01	PSVP	SVP	N	1560	401
5	Wiscasset	PSVP-188-03	PSVP	SVP	N	5730	359, 360
5	Whitefield	PSVP-174-06	PSVP	ND	N	6302	390

# Exhibit 7-6: State and/or Federally Jurisdictional Vernal Pool Habitat Table

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
1	Beattie Twp	VP-0-1	NVP	ND	Y	8	1
1	Beattie Twp	VP-0-2	NVP	ND	Y	136	1
1	Beattie Twp	VP-0-3	NVP	ND	Y	8	1
1	Beattie Twp	VP-0-4	NVP	ND	Y	126	1
1	Beattie Twp	VP-1-1	NVP	ND	Y	8	3
1	Skinner Twp	VP-10-1	NVP	ND	Y	118	25
1	Skinner Twp	VP-10-2	NVP	ND	Y	311	25
1	Skinner Twp	VP-10-3	NVP	ND	Y	186	25
1	Skinner Twp	VP-10-4	NVP	ND	Y	2	24
1	Skinner Twp	VP-10-5	NVP	ND	Y	479	23, 24
1	Appleton Twp	VP-11-2	NVP	ND	N	89	27
1	Skinner Twp	VP-11-3	NVP	ND	Y	187	25, 26
1	Appleton Twp	VP-12-1	NVP	ND	Y	434	30
1	Appleton Twp	VP-12-2	NVP	ND	Y	341	29
1	Appleton Twp	VP-12-3	NVP	ND	Y	8	30
1	Appleton Twp	VP-12-4	NVP	ND	Y	8	29, 30
1	Appleton Twp	VP-13-1	NVP	ND	Y	441	30
1	Appleton Twp	VP-13-2	NVP	ND	Y	1,385	30
1	Appleton Twp	VP-16-1	NVP	ND	Y	255	37
1	Appleton Twp	VP-16-2	NVP	ND	Y	8	37
1	Appleton Twp	VP-16-3	NVP	ND	Y	248	37
1	Appleton Twp	VP-17-1	NVP	ND	Y	368	40, 41
1	Appleton Twp	VP-17-2	NVP	ND	Y	8	39
1	Appleton Twp	VP-17-3	NVP	ND	Y	8	39
1	Appleton Twp	VP-17-4	NVP	ND	Y	8	39
1	Appleton Twp	VP-17-5	NVP	ND	Y	1,796	39
1	Appleton Twp	VP-17-6	NVP	ND	Y	559	39
1	Appleton Twp	VP-17-7	NVP	ND	Y	462	39
1	Appleton Twp	VP-17-8	NVP	ND	Y	1,433	39
1	T5 R7 BKP WKR, Hobbstown Twp	VP-18-1	ABA	ND	Y	427	42

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
1	T5 R7 BKP WKR	VP-20-1	NVP	ND	N	8	46
1	T5 R7 BKP WKR	VP-20-2	NVP	ND	N	8	46
1	T5 R7 BKP WKR	VP-20-4	NVP	ND	N	900	47
1	Bradstreet Twp	VP-24-1	NVP	ND	Y	513	55
1	Bradstreet Twp	VP-25-1	NVP	ND	Y	880	57
1	Bradstreet Twp	VP-26-1	NVP	ND	Y	124	59
1	Bradstreet Twp	VP-29-1	NVP	ND	Y	44	64
1	Bradstreet Twp	VP-29-2	NVP	ND	Y	3,383	63
1	Bradstreet Twp	VP-29-4	NVP	ND	Y	3,656	63
1	Parlin Pond Twp, Johnson Mountain Twp	VP-31-1	NVP	ND	N	3,259	70, 71
1	Parlin Pond Twp	VP-31-2	NVP	ND	Y	469	70
1	Johnson Mountain Twp	VP-32-1	NVP	ND	Y	522	73
1	Johnson Mountain Twp	VP-33-1	NVP	ND	Y	346	76
1	Johnson Mountain Twp	VP-33-2	NVP	ND	Y	135	76
1	Johnson Mountain Twp	VP-33-3	NVP	ND	Y	38	76
1	Johnson Mountain Twp	VP-33-4	NVP	ND	Y	56	75
1	Johnson Mountain Twp	VP-33-5	ABA	ND	Y	258	74, 75
1	Johnson Mountain Twp	VP-33-6	NVP	ND	Y	203	74
1	Johnson Mountain Twp	VP-33-7	NVP	ND	Y	142	74
1	Johnson Mountain Twp	VP-35-1	NVP	ND	Y	730	80, 81
1	Johnson Mountain Twp	VP-35-2	ABA	ND	Y	36	80
1	Johnson Mountain Twp	VP-36-1	NVP	ND	N	199	83
1	Johnson Mountain Twp	VP-36-2	NVP	ND	Y	117	81
1	Johnson Mountain Twp	VP-37-1	NVP	ND	Y	142	84
1	Johnson Mountain Twp	VP-39-1	NVP	ND	Y	310	89
1	Johnson Mountain Twp	VP-39-2	NVP	ND	Y	40	89
1	Johnson Mountain Twp	VP-40-1	NVP	ND	Y	30	91, 92
1	Johnson Mountain Twp	VP-40-2	NVP	ND	Y	55	91, 92
1	Johnson Mountain Twp	VP-40-3	NVP	ND	Y	13	91, 92
1	Johnson Mountain Twp	VP-40-4	NVP	ND	Y	51	92

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
1	Johnson Mountain Twp	VP-41-1	NVP	ND	Y	582	93
1	Johnson Mountain Twp	VP-42-1	ABA	ND	Y	90	95, 96
1	Johnson Mountain Twp	VP-42-2	NVP	ND	Y	34	95
1	West Forks Plt	VP-43-1	NVP	ND	Y	845	97
1	West Forks Plt	VP-45-2	NVP	ND	Y	425	100
1	West Forks Plt	VP-46-1	NVP	ND	N	2,582	101
1	West Forks Plt	VP-48-1	NVP	ND	Y	110	106
1	West Forks Plt	VP-48-2	NVP	ND	Y	49	106
1	West Forks Plt	VP-48-3	NVP	ND	Y	22	106
1	West Forks Plt	VP-48-5	NVP	ND	Y	8	106
1	West Forks Plt	VP-49-1	NVP	ND	Y	47	108
1	West Forks Plt	VP-49-2	NVP	ND	Y	66	108
1	West Forks Plt	VP-49-3	NVP	ND	Y	8	108
1	West Forks Plt	VP-49-4	NVP	ND	Y	42	108
1	West Forks Plt	VP-49-6	NVP	ND	Y	190	107
1	West Forks Plt	VP-49-7	NVP	ND	Y	32	107
1	West Forks Plt	VP-49-8	NVP	ND	Y	90	107
1	West Forks Plt	VP-49-9	NVP	ND	Y	288	107
1	Skinner Twp	VP-5-1	NVP	ND	Y	137	13, 14
1	Skinner Twp	VP-5-2	NVP	ND	Y	8	13
1	Moxie Gore	VP-52-2	NVP	ND	Y	294	116
1	Moxie Gore	VP-52-3	NVP	ND	Y	84	116
1	Moxie Gore	VP-52-4	NVP	ND	Y	84	116
1	Moxie Gore	VP-52-5	NVP	ND	Y	1,159	116
1	Skinner Twp	VP-7-1	NVP	ND	Y	198	18
1	Skinner Twp	VP-9-1	NVP	ND	Y	851	21
1	Skinner Twp	VP-LT-1	NVP	ND	Y	847	12
1	Skinner Twp	VP-LT-2	NVP	ND	Y	743	12
1	Skinner Twp	VP-LT-4	NVP	ND	Y	388	11
1	Beattie Twp	VP-LT-5	NVP	ND	Y	8	10, 11
1	Merrill Strip Twp	VP-LT-6	NVP	ND	Y	125	10

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
1	Beattie Twp	VP-LT-7	NVP	ND	Y	8	9
1	Bradstreet Twp	VP-SR-30-1	NVP	ND	Y	143	67
1	Bradstreet Twp	VP-SR-30-2	NVP	ND	Y	887	67
1	Bradstreet Twp	VP-SR-30-3	NVP	ND	Y	391	67
2	Bald Mountain Twp T2 R3	VP-222-01	NVP	ND	Y	1,058	135
2	The Forks Plt	VP-222-02	NVP	ND	Y	69	127
2	The Forks Plt	VP-222-03	NVP	ND	Y	11	127
2	The Forks Plt	VP-222-04	NVP	ND	Y	102	127
2	The Forks Plt	VP-222-05	NVP	ND	Y	322	125, 126
2	The Forks Plt	VP-222-06	NVP	ND	Y	164	125, 126
2	The Forks Plt	VP-222-07	NVP	ND	Y	2	123
2	The Forks Plt	VP-222-08	NVP	ND	Y	25	118
2	Bald Mountain Twp T2 R3	VP-222-10	ABA	ND	Y	127	135
2	Bald Mountain Twp T2 R3	VP-222-11	NVP	ND	Y	390	135
2	The Forks Plt	VP-222-12	NVP	ND	Y	18	127
2	Moscow	VP-68-01	NVP	ND	Y	78	151
2	Moscow	VP-68-02	NVP	ND	Y	78	150, 151
2	Moscow	VP-68-03	NVP	ND	Y	78	150
2	Moscow	VP-72-101	NVP	ND	Y	28	159
3	Embden	NVP-83-05	NVP	ND	Y	228	183, 184
3	Embden	NVP-86-07	NVP	ND	Y	28,378	191
3	Embden	NVP-86-10	NVP	ND	Y	2,007	190
3	Anson	NVP-90-01	NVP	ND	Y	8,319	200
3	Starks	VP-100-01	NVP	ND	Y	28	220
3	Starks	VP-100-02	NVP	ND	Y	28	220
3	Starks	VP-100-03	NVP	ND	Y	78	220
3	Industry	VP-101-01	NVP	ND	Y	2,583	224
3	Industry	VP-102-01	NVP	ND	Y	28	226
3	Industry	VP-102-04	NVP	ND	Y	86	226
3	Industry	VP-102-05	NVP	ND	Y	28	226
3	Industry	VP-102-06	NVP	ND	Y	130	226

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
3	Industry	VP-102-07	NVP	ND	Y	24	226
3	Industry	VP-102-08	NVP	ND	Y	102	226
3	Industry	VP-102-09	NVP	ND	Y	129	226
3	Industry	VP-103-01	NVP	ND	Y	176	227
3	Industry	VP-103-02	NVP	ND	Y	959	227, 228
3	Industry	VP-103-03	NVP	ND	Y	356	228
3	Industry	VP-104-01	NVP	ND	Y	28	229
3	Industry	VP-104-03	NVP	ND	Y	607	231
3	Industry	VP-104-04	NVP	ND	Y	78	231
3	New Sharon	VP-104-05	NVP	ND	Y	532	231
3	New Sharon	VP-104-06	NVP	ND	Y	28	231
3	New Sharon	VP-104-07	NVP	ND	Y	78	231
3	New Sharon	VP-104-08	NVP	ND	Y	352	231
3	New Sharon	VP-105-01	NVP	ND	Y	3,036	232
3	New Sharon	VP-105-02	NVP	ND	Y	265	231
3	New Sharon	VP-105-03	NVP	ND	Y	28	232
3	Farmington	VP-106-01	NVP	ND	Y	28	234
3	Farmington	VP-106-02	NVP	ND	Y	263	235
3	Farmington	VP-107-01	NVP	ND	Y	176	236
3	Farmington	VP-107-02	NVP	ND	Y	187	237
3	Farmington	VP-107-03	ABA	ND	Y	28	238
3	Farmington	VP-107-04	ABA	ND	Y	312	237
3	Farmington	VP-109-01	NVP	ND	Y	1,232	240, 241
3	Farmington	VP-109-02	NVP	ND	Y	176	240, 241
3	Farmington	VP-109-03	ABA	ND	Y	858	241
3	Farmington	VP-111-01	NVP	ND	Y	3,724	245
3	Farmington	VP-111-02	NVP	ND	Y	1,631	245
3	Farmington	VP-111-05	NVP	ND	Y	2,738	246
3	Farmington	VP-111-06	NVP	ND	Y	146	246
3	Farmington	VP-112-02	NVP	ND	Y	28	248
3	Wilton	VP-113-01	NVP	ND	Y	2,955	250, 251

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
3	Chesterville	VP-114-01	NVP	ND	Y	3,803	252
3	Chesterville	VP-114-03	ABA	ND	Y	78	252
3	Jay	VP-116-01	NVP	ND	Y	78	257
3	Jay	VP-116-02	NVP	ND	Y	78	257
3	Jay	VP-116-03	NVP	ND	Y	1,002	257
3	Jay	VP-116-05	NVP	ND	Y	312	258
3	Jay	VP-116-06	NVP	ND	Y	130	258
3	Jay	VP-117-01	NVP	ND	Y	28	258
3	Jay	VP-117-03	NVP	ND	Y	1,704	258, 259
3	Jay	VP-117-04	ABA	ND	Y	317	259
3	Jay	VP-117-05	NVP	ND	Y	2,750	260
3	Jay	VP-117-06	ABA	ND	Y	28	260
3	Jay	VP-118-01	NVP	ND	Y	28	261
3	Chesterville	VP-114-02	NVP	NSP	Y	1,372	252
3	Jay	VP-117-07	NVP	NSP	Y	996	260
3	Jay	VP-118-04	NVP	NSP	Y	2,557	262
3	Livermore Falls	VP-126-01	NVP	NSP	Y	5,074	279
3	Livermore Falls	VP-128-07	NVP	NSP	Y	862	284, 285
3	Leeds	VP-136-08	ABA	NSP	Y	462	302, 303
3	Greene	VP-140-01	NVP	NSP	Y	28	309, 310
3	Greene	VP-140-06	NVP	NSP	Y	2,061	311
3	Greene	VP-140-11	NVP	NSP	Y	3,486	311
3	Lewiston	VP-145-01	NVP	NSP	Y	1,704	320
3	Lewiston	VP-145-03	NVP	NSP	Y	2,805	321
3	Lewiston	VP-145-05	NVP	NSP	Y	614	321
3	Lewiston	VP-145-06	NVP	NSP	Y	3,658	321
3	Concord Twp	VP-75-104	NVP	NSP	Y	7,238	166, 167
3	Concord Twp	VP-77-01	NVP	NSP	Y	16,759	171
3	Concord Twp	VP-77-02	NVP	NSP	Y	44,627	170, 171
3	Concord Twp	VP-80-04	NVP	NSP	Y	316	177
3	Concord Twp	VP-80-06	NVP	NSP	Y	2,690	177

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
3	Concord Twp	VP-81-01	NVP	NSP	Y	7,549	180
3	Concord Twp	VP-81-02	NVP	NSP	Y	3,484	180
3	Concord Twp	VP-81-03	NVP	NSP	Y	4,960	179, 180
3	Concord Twp	VP-81-04	NVP	NSP	Y	1,564	179
3	Embden	VP-82-07	NVP	NSP	Y	1,712	180
3	Embden	VP-83-06	NVP	NSP	Y	459	184
3	Embden	VP-83-07	NVP	NSP	Y	955	184
3	Embden	VP-83-08	NVP	NSP	Y	3,193	184
3	Embden	VP-83-09	NVP	NSP	Y	752	184
3	Embden	VP-83-10	NVP	NSP	Y	76	183
3	Embden	VP-83-11	NVP	NSP	Y	962	184
3	Embden	VP-83-12	NVP	NSP	Y	28	184
3	Embden	VP-86-01	NVP	NSP	Y	1,112	189, 190
3	Embden	VP-86-13	NVP	NSP	Y	415	189, 190
3	Embden	VP-87-07	NVP	NSP	Y	661	193, 194
3	Anson	VP-92-02	NVP	NSP	Y	997	204
3	Anson	VP-94-03	NVP	NSP	Y	1,292	208
3	Anson	VP-95-01	NVP	NSP	Y	391	209, 210
3	Anson	VP-95-02	NVP	NSP	Y	68	210
3	Starks	VP-97-05	NVP	NSP	Y	3,466	215
3	Starks	VP-97-07	NVP	NSP	Y	1,270	215, 216
3	Lewiston	VP-PERRON-1	NVP	NSP	N	3,248	320
3	Jay	VP-119-01	ABA	ND	Y	28	263
3	Jay	VP-119-02	NVP	ND	Y	1,459	264
3	Jay	VP-119-04	NVP	ND	Y	1,124	264
3	Jay	VP-119-05	NVP	ND	Y	37	264
3	Jay	VP-119-06	NVP	ND	Y	28	264, 265
3	Jay	VP-119-07	NVP	ND	Y	874	264, 265
3	Jay	VP-119-08	NVP	ND	Y	312	265
3	Jay	VP-120-01	NVP	ND	Y	28	266
3	Jay	VP-120-02	NVP	ND	Y	28	266

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
3	Jay	VP-120-03	NVP	ND	Y	28	266
3	Jay	VP-121-01	NVP	ND	N	78	267
3	Jay	VP-121-02	NVP	ND	N	368	268
3	Livermore Falls	VP-123-01	NVP	ND	Y	28	271
3	Livermore Falls	VP-123-02	NVP	ND	Y	78	272, 273
3	Livermore Falls	VP-123-03	NVP	ND	Y	1,975	273
3	Livermore Falls	VP-123-04	NVP	ND	Y	312	273
3	Livermore Falls	VP-123-05	NVP	ND	Y	28	273
3	Livermore Falls	VP-124-01	NVP	ND	Y	28	274
3	Livermore Falls	VP-124-02	NVP	ND	Y	28	275
3	Livermore Falls	VP-124-03	NVP	ND	Y	28	275
3	Livermore Falls	VP-124-04	NVP	ND	Y	78	275
3	Livermore Falls	VP-124-05	NVP	ND	Y	891	275
3	Livermore Falls	VP-124-06	NVP	ND	Y	10,286	275, 276
3	Livermore Falls	VP-124-07	NVP	ND	Y	538	276
3	Livermore Falls	VP-125-02	NVP	ND	Y	78	276
3	Livermore Falls	VP-125-03	NVP	ND	Y	176	276
3	Livermore Falls	VP-125-04	NVP	ND	Y	1,177	276, 277
3	Livermore Falls	VP-126-02	NVP	ND	Y	28,222	279, 280
3	Livermore Falls	VP-126-03	NVP	ND	Y	28	279, 280
3	Livermore Falls	VP-126-04	NVP	ND	Y	411	280
3	Livermore Falls	VP-127-01	ABA	ND	Y	2,047	280
3	Livermore Falls	VP-127-02	ABA	ND	Y	78	281
3	Livermore Falls	VP-127-03	NVP	ND	Y	28	282
3	Livermore Falls	VP-127-04	NVP	ND	N	41	282, 283
3	Livermore Falls	VP-128-01	NVP	ND	Y	78	283
3	Livermore Falls	VP-128-02	NVP	ND	Y	312	283
3	Livermore Falls	VP-128-03	NVP	ND	Y	9,484	283
3	Livermore Falls	VP-128-04	NVP	ND	Y	78	284
3	Livermore Falls	VP-128-05	NVP	ND	Y	78	284
3	Livermore Falls	VP-128-06	NVP	ND	Y	382	284

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
3	Livermore Falls	VP-128-08	NVP	ND	Y	312	285
3	Livermore Falls	VP-128-10	NVP	ND	Y	78	285
3	Livermore Falls	VP-129-01	NVP	ND	Y	78	285
3	Livermore Falls	VP-129-02	NVP	ND	Y	3,830	285
3	Livermore Falls	VP-129-03	NVP	ND	Y	312	285
3	Livermore Falls	VP-129-04	NVP	ND	Y	1,064	286
3	Livermore Falls	VP-129-05	NVP	ND	Y	1,459	286
3	Livermore Falls	VP-129-06	NVP	ND	Y	2,767	286
3	Leeds	VP-129-07	NVP	ND	Y	112	287
3	Leeds	VP-129-08	NVP	ND	Y	78	287
3	Leeds	VP-129-09	NVP	ND	Y	28	287
3	Leeds	VP-130-01	NVP	ND	Y	732	287
3	Leeds	VP-130-02	NVP	ND	Y	312	287, 288
3	Leeds	VP-130-03	NVP	ND	Y	78	287, 288
3	Leeds	VP-130-04	NVP	ND	Y	78	288
3	Leeds	VP-130-05	NVP	ND	Y	107	288
3	Leeds	VP-130-06	NVP	ND	Y	78	288
3	Leeds	VP-130-07	NVP	ND	Y	28	288
3	Leeds	VP-130-09	NVP	ND	Y	78	288
3	Leeds	VP-130-10	NVP	ND	Y	28	288
3	Leeds	VP-130-11	NVP	ND	Y	455	288
3	Leeds	VP-130-12	NVP	ND	Y	1,032	288
3	Leeds	VP-130-13	NVP	ND	Y	2,793	289
3	Leeds	VP-131-01	ABA	ND	Y	50	290
3	Leeds	VP-131-02	ABA	ND	Y	4,332	290
3	Leeds	VP-131-03	NVP	ND	Y	1,399	290
3	Leeds	VP-131-04	NVP	ND	Y	3,670	290
3	Leeds	VP-131-05	NVP	ND	Y	312	291
3	Leeds	VP-132-01	NVP	ND	Y	28	292
3	Leeds	VP-132-02	NVP	ND	Y	282	293
3	Leeds	VP-132-03	NVP	ND	Y	28	293

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
3	Leeds	VP-133-01	NVP	ND	Y	185	294
3	Leeds	VP-133-02	NVP	ND	Y	1,751	294
3	Leeds	VP-133-03	NVP	ND	Y	1,603	295
3	Leeds	VP-133-04	NVP	ND	Y	4,993	295
3	Leeds	VP-134-01	NVP	ND	Y	2,883	297
3	Leeds	VP-134-02	NVP	ND	Y	245	297
3	Leeds	VP-134-03	NVP	ND	Y	176	297
3	Leeds	VP-134-04	NVP	ND	Y	330	297
3	Leeds	VP-135-01	NVP	ND	Y	5,371	298
3	Leeds	VP-135-02	NVP	ND	Y	1,908	298
3	Leeds	VP-135-04	NVP	ND	Y	762	299
3	Leeds	VP-136-03	ABA	ND	Y	1,203	302
3	Leeds	VP-136-05	NVP	ND	Y	802	302
3	Leeds	VP-136-06	ABA	ND	Y	1,578	302
3	Leeds	VP-136-07	NVP	ND	Y	482	302
3	Leeds	VP-137-01	NVP	ND	Y	421	302, 303
3	Leeds	VP-137-02	NVP	ND	Y	28	303
3	Leeds	VP-137-03	NVP	ND	Y	43	303
3	Leeds	VP-137-04	NVP	ND	Y	67	303
3	Leeds	VP-137-05	NVP	ND	Y	284	304
3	Leeds	VP-137-07	NVP	ND	Y	1,036	303
3	Leeds	VP-138-01	NVP	ND	Y	603	305
3	Greene	VP-138-02	NVP	ND	Y	393	306, 307
3	Greene	VP-139-01	NVP	ND	Y	205	307
3	Greene	VP-139-02	NVP	ND	Y	78	307
3	Greene	VP-139-03	NVP	ND	Y	195	307
3	Greene	VP-139-04	NVP	ND	Y	312	307
3	Greene	VP-139-05	ABA	ND	Y	447	307, 308
3	Greene	VP-139-06	NVP	ND	Y	1,243	307, 308
3	Greene	VP-139-07	NVP	ND	Y	2,977	308
3	Greene	VP-139-08	NVP	ND	Y	886	308

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
3	Greene	VP-139-09	NVP	ND	Y	13,623	308
3	Greene	VP-140-03	NVP	ND	Y	312	310
3	Greene	VP-140-05	NVP	ND	Y	4,932	311
3	Greene	VP-140-07	NVP	ND	Y	78	311
3	Greene	VP-140-08	NVP	ND	Y	78	311
3	Greene	VP-140-09	NVP	ND	Y	78	311
3	Greene	VP-140-10	NVP	ND	Y	28	311
3	Greene	VP-140-12	NVP	ND	Y	1,554	311
3	Greene	VP-140-13	NVP	ND	Y	28	311
3	Greene	VP-141-01	NVP	ND	Y	20	311
3	Greene	VP-141-02	NVP	ND	Y	176	311, 312
3	Greene	VP-141-03	NVP	ND	Y	703	311, 312
3	Greene	VP-141-04	NVP	ND	Y	20	312
3	Greene	VP-141-05	NVP	ND	Y	28	312
3	Greene	VP-141-06	NVP	ND	Y	28	312
3	Greene	VP-141-07	NVP	ND	Y	20	312
3	Greene	VP-142-01	NVP	ND	Y	28	315
3	Greene	VP-142-02	NVP	ND	Y	28	315
3	Greene	VP-142-03	NVP	ND	Y	28	315
3	Greene	VP-142-04	NVP	ND	Y	28	315, 316
3	Greene	VP-142-05	NVP	ND	Y	28	315, 316
3	Greene	VP-143-01	NVP	ND	Y	28	316
3	Greene	VP-143-02	NVP	ND	Y	28	316, 317
3	Greene	VP-143-04	NVP	ND	Y	28	317
3	Greene	VP-143-05	NVP	ND	Y	28	317
3	Greene	VP-143-06	NVP	ND	Y	28	317
3	Lewiston	VP-145-02	NVP	ND	N	28	321
3	Lewiston	VP-145-04	NVP	ND	N	4,345	321
3	Lewiston	VP-145-07	NVP	ND	Y	28	321
3	Lewiston	VP-146-03	ABA	ND	N	1,140	323
3	Lewiston	VP-146-05	ABA	ND	N	655	323

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
3	Lewiston	VP-146-06	ABA	ND	N	78	323
3	Concord Twp	VP-75-103	NVP	ND	Y	1,987	167
3	Concord Twp	VP-77-03	NVP	ND	Y	7,450	170
3	Concord Twp	VP-79-01	NVP	ND	Y	741	175
3	Concord Twp	VP-79-02	NVP	ND	Y	28	174
3	Concord Twp	VP-79-03	NVP	ND	Y	1,334	174
3	Concord Twp	VP-79-04	NVP	ND	Y	38	174
3	Concord Twp	VP-79-05	NVP	ND	Y	78	174
3	Concord Twp	VP-79-06	NVP	ND	Y	28	174
3	Concord Twp	VP-80-02	NVP	ND	Y	28	177, 178
3	Concord Twp	VP-80-05	NVP	ND	Y	78	176
3	Embden	VP-82-01	NVP	ND	Y	28	181
3	Embden	VP-82-02	NVP	ND	Y	28	181
3	Embden	VP-82-03	NVP	ND	Y	312	181
3	Embden	VP-82-04	NVP	ND	Y	1,927	181
3	Embden	VP-82-05	NVP	ND	Y	28	182, 183
3	Embden	VP-82-06	NVP	ND	Y	914	182, 183
3	Embden	VP-83-01	NVP	ND	Y	662	183
3	Embden	VP-86-02	NVP	ND	Y	234	191
3	Embden	VP-86-03	NVP	ND	Y	210	191
3	Embden	VP-86-06	NVP	ND	Y	28	191
3	Embden	VP-86-08	NVP	ND	Y	28	190
3	Embden	VP-86-11	NVP	ND	Y	78	191
3	Embden	VP-86-12	NVP	ND	Y	264	191
3	Embden	VP-87-01	NVP	ND	Y	145	191, 192
3	Embden	VP-87-02	NVP	ND	Y	255	191, 192
3	Embden	VP-87-03	NVP	ND	Y	28	192
3	Embden	VP-87-04	NVP	ND	Y	2,692	192
3	Embden	VP-87-05	ABA	ND	Y	262	193
3	Embden	VP-87-06	NVP	ND	Y	28	193
3	Embden	VP-87-08	NVP	ND	Y	28	193

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
3	Embden	VP-87-09	NVP	ND	Y	185	193, 194
3	Embden	VP-87-10	NVP	ND	Y	1,094	194
3	Embden	VP-88-01	NVP	ND	Y	28	194
3	Embden	VP-88-02	NVP	ND	Y	2,808	194
3	Embden	VP-88-03	ABA	ND	Y	28	194
3	Embden	VP-88-04	ABA	ND	Y	28	194
3	Embden	VP-88-06	NVP	ND	Y	190	194
3	Embden	VP-88-07	NVP	ND	Y	28	194, 195
3	Anson, Embden	VP-88-08	NVP	ND	Y	102	194, 195
3	Anson	VP-88-09	ABA	ND	Y	78	195
3	Anson	VP-88-10	NVP	ND	Y	28	195
3	Anson	VP-89-01	NVP	ND	Y	239	196
3	Anson	VP-91-01	ABA	ND	Y	165	202
3	Anson	VP-91-02	NVP	ND	Y	2,031	202
3	Anson	VP-91-03	NVP	ND	Y	261	202, 203
3	Anson	VP-92-03	NVP	ND	Y	367	204
3	Anson	VP-93-01	NVP	ND	Y	298	205
3	Anson	VP-93-02	ABA	ND	Y	1,401	206
3	Anson	VP-94-01	ABA	ND	Y	94	208
3	Anson	VP-94-02	NVP	ND	Y	28	208
3	Anson	VP-94-04	ABA	ND	Y	28	208
3	Starks	VP-95-03	NVP	ND	N	1,357	211
3	Starks	VP-95-04	NVP	ND	Y	78	211
3	Starks	VP-96-01	NVP	ND	Y	506	212
3	Starks	VP-96-02	NVP	ND	Y	149	212
3	Starks	VP-96-03	NVP	ND	Y	78	213
3	Starks	VP-96-04	NVP	ND	Y	28	213
3	Starks	VP-96-05	NVP	ND	Y	176	213
3	Starks	VP-97-01	NVP	ND	Y	536	215
3	Starks	VP-97-02	NVP	ND	Y	223	215
3	Starks	VP-97-03	NVP	ND	Y	28	215

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
3	Starks	VP-97-04	NVP	ND	Y	225	215
3	Starks	VP-97-08	NVP	ND	Y	50	215, 216
3	Starks	VP-97-09	NVP	ND	Y	78	216
3	Starks	VP-97-10	ABA	ND	Y	112	215
3	Starks	VP-98-01	ABA	ND	Y	28	216
3	Starks	VP-98-02	NVP	ND	Y	176	216
3	Starks	VP-98-03	NVP	ND	Y	28	216
3	Starks	VP-98-04	NVP	ND	Y	28	216
3	Starks	VP-98-05	ABA	ND	Y	136	217
3	Starks	VP-98-06	NVP	ND	Y	1,126	217, 218
3	Starks	VP-98-07	NVP	ND	Y	28	216
3	Starks	VP-98-08	ABA	ND	Y	28	217
3	Starks	VP-99-01	NVP	ND	Y	28	218
3	Starks	VP-99-02	ABA	ND	Y	307	218
3	Starks	VP-99-03	NVP	ND	Y	785	219
3	Starks	VP-99-04	NVP	ND	Y	186	219
3	Starks	VP-99-05	NVP	ND	Y	28	219
3	Starks	VP-99-06	NVP	ND	Y	28	219
3	Starks	VP-99-07	NVP	ND	Y	28	219
3	Starks	VP-99-08	NVP	ND	Y	1,470	219, 220
3	Livermore Falls	VP-BOWMAN-1	NVP	ND	N	337	280
4	Lewiston	VP-146-01	ABA	ND	N	934	324
4	Lewiston	VP-146-02	ABA	ND	N	90	324
4	Lewiston	VP-146-04	ABA	ND	N	8,971	323, 324
4	Lewiston	VP-147-01	ABA	ND	N	1,043	325
4	Lewiston	VP-147-02	ABA	ND	N	4,778	325
4	Lewiston	VP-147-03	ABA	ND	N	6,522	325
4	Lewiston	VP-147-04	ABA	ND	N	151	327
4	Lewiston	VP-147-05	ABA	ND	N	754	327
4	Lewiston	VP-147-06	ABA	ND	N	74	327
4	Lewiston	VP-147-07	ABA	ND	N	894	325

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
4	Lewiston	VP-147-09	ABA	ND	N	11,829	327
4	Lewiston	VP-148-01	ABA	ND	N	1,112	328
4	Lewiston	VP-148-02	ABA	ND	N	1,519	328, 329
4	Lewiston	VP-148-03	ABA	ND	N	1,519	328, 329
4	Lewiston	VP-148-04	ABA	ND	N	595	328, 329
4	Lewiston	VP-148-05	ABA	ND	N	2,052	328, 329
4	Lewiston	VP-148-07	NVP	ND	N	1,254	329
4	Lewiston	VP-149-01	ABA	ND	N	4,186	331
4	Lewiston	VP-149-02	ABA	ND	N	87	330
4	Lewiston	VP-149-03	ABA	ND	N	532	330
4	Lewiston	VP-149-04	NVP	ND	N	9,899	330
4	Lewiston	VP-150-01	ABA	ND	N	1,220	332
4	Lewiston	VP-150-02	ABA	ND	N	133	332
4	Lewiston	VP-150-03	ABA	ND	N	1,312	332
4	Lewiston	VP-150-04	ABA	ND	N	297	332
4	Lewiston	VP-150-05	ABA	ND	N	362	332
4	Lewiston	VP-151-01	NVP	ND	N	863	335
4	Lewiston	VP-151-02	NVP	ND	N	132	335
4	Lewiston	VP-151-03	ABA	ND	N	859	335
4	Lewiston	VP-151-04	NVP	ND	N	1,036	334
4	Lewiston	VP-152-01	ABA	ND	N	4,812	338
4	Lewiston	VP-153-01	ABA	ND	N	242	339
4	Lewiston	VP-155-01	ABA	ND	N	903	343
4	Auburn	VP-155-02	ABA	ND	N	337	344, 345
4	Auburn	VP-155-03	ABA	ND	N	2,458	344, 345
4	Auburn	VP-155-04	ABA	ND	N	856	344
4	Auburn	VP-155-05	ABA	ND	N	4,614	344
4	Lewiston	VP-155-06	ABA	ND	N	9,855	343
4	Durham	VP-156-01	ABA	ND	N	172	346
4	Durham	VP-156-02	ABA	ND	N	223	346
4	Durham	VP-156-03	ABA	ND	N	1,590	346

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
4	Durham	VP-156-04	ABA	ND	N	2,073	347
4	Durham	VP-157-01	ABA	ND	N	324	348
4	Durham	VP-157-02	ABA	ND	N	851	348, 349
4	Durham	VP-157-03	ABA	ND	N	1,730	348, 349
4	Durham	VP-157-04	ABA	ND	N	5,376	348
4	Durham	VP-157-05	ABA	ND	N	12,978	348, 349
4	Durham	VP-158-02	NVP	ND	N	568	349
4	Durham	VP-159-01	ABA	ND	N	8,609	353, 354
4	Durham	VP-159-02	ABA	ND	N	2,978	353, 354
4	Durham	VP-159-03	ABA	ND	N	3,494	354
4	Durham	VP-159-04	ABA	ND	N	251	352
4	Durham	VP-159-05	ABA	ND	N	812	353
4	Durham	VP-160-01	ABA	ND	N	2,579	354
4	Durham	VP-160-02	ABA	ND	N	28	354
4	Durham	VP-160-03	ABA	ND	N	28	354
4	Pownal	VP-161-01	ABA	ND	N	28	358
4	Pownal	VP-161-02	ABA	ND	N	28	358
4	Pownal	VP-161-03	ABA	ND	N	28	358
4	Pownal	VP-161-04	ABA	ND	N	28	356
4	Pownal	VP-161-05	ABA	ND	N	28	356
4	Pownal	VP-161-06	NVP	ND	N	360	357
4	Pownal	VP-161-07	ABA	ND	N	28	357
4	Pownal	VP-161-08	ABA	ND	N	28	357, 358
4	Pownal	VP-161-09	ABA	ND	N	28	358
4	Pownal	VP-161-11	ABA	ND	N	403	356
4	Pownal	VP-161-13	ABA	ND	N	28	357
4	Pownal	VP-161-14	NVP	ND	N	95	357
4	Pownal	VP-161-15	ABA	ND	N	28	357
4	Pownal	VP-161-16	ABA	ND	N	28	358
4	Pownal	VP-161-17	ABA	ND	N	28	358
5	Whitefield	VP-173-02	NVP	NSP	N	3,558	393

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
5	Wiscasset	VP-182-02	NVP	NSP	N	969	372
5	Wiscasset	VP-183-05	NVP	NSP	N	6,236	370, 371
5	Windsor	VP-162-02	NVP	ND	N	91	417
5	Windsor	VP-163-01	NVP	ND	N	163	416
5	Windsor	VP-163-02	ABA	ND	N	684	414, 415
5	Windsor	VP-163-03	NVP	ND	N	109	414
5	Windsor	VP-164-01	NVP	ND	N	121	414
5	Windsor	VP-164-02	NVP	ND	N	3,980	412
5	Windsor	VP-164-03	NVP	ND	N	649	412
5	Whitefield	VP-164-04	NVP	ND	N	1,999	411, 412
5	Whitefield	VP-164-05	NVP	ND	N	218	411, 412
5	Whitefield	VP-165-01	NVP	ND	N	5,358	410, 411
5	Whitefield	VP-165-02	NVP	ND	N	258	409
5	Whitefield	VP-166-01	NVP	ND	N	1,020	408
5	Whitefield	VP-166-02	ABA	ND	N	28	408
5	Whitefield	VP-166-03	NVP	ND	N	959	407
5	Whitefield	VP-166-04	NVP	ND	N	766	407
5	Whitefield	VP-167-01	NVP	ND	N	28	407
5	Whitefield	VP-167-02	NVP	ND	N	219	407
5	Whitefield	VP-167-03	NVP	ND	N	28	405
5	Whitefield	VP-168-01	NVP	ND	N	1,521	404
5	Whitefield	VP-168-02	NVP	ND	N	28	404
5	Whitefield	VP-169-02	ABA	ND	N	270	400, 401
5	Whitefield	VP-169-03	NVP	ND	N	312	400
5	Whitefield	VP-170-01	ABA	ND	N	78	400
5	Whitefield	VP-170-02	NVP	ND	N	28	399
5	Whitefield	VP-170-03	NVP	ND	N	1,196	399
5	Whitefield	VP-170-04	NVP	ND	N	505	399
5	Whitefield	VP-170-05	NVP	ND	N	698	398, 399
5	Whitefield	VP-171-01	NVP	ND	N	28	398
5	Whitefield	VP-171-02	NVP	ND	N	312	398

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
5	Whitefield	VP-171-03	NVP	ND	N	28	398
5	Whitefield	VP-171-04	ABA	ND	N	176	397
5	Whitefield	VP-171-05	ABA	ND	N	28	398
5	Whitefield	VP-173-01	ABA	ND	N	427	393
5	Whitefield	VP-173-03	ABA	ND	N	78	393
5	Whitefield	VP-173-04	ABA	ND	N	3,574	392
5	Whitefield	VP-173-05	NVP	ND	N	50	392
5	Whitefield	VP-173-06	NVP	ND	N	703	392
5	Whitefield	VP-174-02	ABA	ND	N	28	391
5	Whitefield	VP-174-03	NVP	ND	N	591	390, 391
5	Whitefield	VP-174-04	NVP	ND	N	2,645	390
5	Whitefield	VP-174-05	NVP	ND	N	28	390
5	Whitefield	VP-174-07	ABA	ND	N	28	390
5	Whitefield	VP-174-08	NVP	ND	N	649	390
5	Whitefield	VP-174-09	NVP	ND	N	2,327	390
5	Whitefield	VP-174-10	NVP	ND	N	761	390
5	Whitefield	VP-174-11	ABA	ND	N	28	391
5	Whitefield	VP-175-01	ABA	ND	N	28	389
5	Whitefield	VP-175-02	ABA	ND	N	28	388
5	Alna	VP-176-01	ABA	ND	N	804	385
5	Alna	VP-177-01	NVP	ND	N	735	385
5	Alna	VP-177-02	NVP	ND	N	28	385
5	Alna	VP-177-03	NVP	ND	N	2,974	384, 385
5	Alna	VP-177-04	NVP	ND	N	3,984	385
5	Alna	VP-177-05	NVP	ND	N	28	384, 385
5	Alna	VP-177-06	ABA	ND	N	28	383
5	Alna	VP-177-07	NVP	ND	N	3,479	383
5	Alna	VP-177-08	NVP	ND	N	1,387	383
5	Alna	VP-177-09	NVP	ND	N	28	383
5	Alna	VP-177-10	NVP	ND	N	28	383
5	Alna	VP-177-11	NVP	ND	N	28	383

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
5	Alna	VP-177-12	NVP	ND	N	414	383
5	Alna	VP-177-13	NVP	ND	N	28	383
5	Alna	VP-177-14	ABA	ND	N	28	383
5	Alna	VP-177-15	NVP	ND	N	1,578	383
5	Alna	VP-178-01	ABA	ND	N	28	382
5	Alna	VP-178-02	ABA	ND	N	28	382
5	Alna	VP-178-03	ABA	ND	N	28	382
5	Alna	VP-178-04	ABA	ND	N	28	382
5	Alna	VP-178-05	ABA	ND	N	28	381
5	Alna	VP-179-01	ABA	ND	N	28	380
5	Alna	VP-179-02	ABA	ND	N	899	380
5	Alna	VP-180-01	ABA	ND	N	28	378
5	Alna	VP-180-02	ABA	ND	N	28	378
5	Alna	VP-180-03	ABA	ND	N	28	377, 378
5	Alna	VP-180-04	ABA	ND	N	808	377
5	Alna	VP-180-05	ABA	ND	N	28	377
5	Alna	VP-180-06	NVP	ND	N	7,839	377
5	Alna	VP-180-07	NVP	ND	N	28	376, 377
5	Alna	VP-180-08	NVP	ND	N	1,199	376, 377
5	Alna	VP-180-09	NVP	ND	N	3,675	376
5	Alna	VP-180-10	NVP	ND	N	5,987	376
5	Alna	VP-180-11	NVP	ND	N	28	376
5	Wiscasset	VP-181-01	ABA	ND	N	28	375
5	Wiscasset	VP-181-02	ABA	ND	N	28	375
5	Wiscasset	VP-182-01	NVP	ND	N	28	373
5	Wiscasset	VP-182-03	ABA	ND	N	28	372
5	Wiscasset	VP-182-04	NVP	ND	N	1,949	372
5	Wiscasset	VP-182-05	NVP	ND	N	28	372
5	Wiscasset	VP-182-06	NVP	ND	N	1,445	372
5	Wiscasset	VP-182-07	NVP	ND	N	1,498	372
5	Wiscasset	VP-182-08	NVP	ND	N	28	371, 372

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type (NVP, ABA, SVP) <sup>1</sup>	MDIFW Determination <sup>2</sup>	Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)
5	Wiscasset	VP-183-01	NVP	ND	N	28	371
5	Wiscasset	VP-183-02	NVP	ND	N	1,076	371
5	Wiscasset	VP-183-03	ABA	ND	N	28	371
5	Wiscasset	VP-183-04	NVP	ND	N	6,505	371
5	Wiscasset	VP-183-06	NVP	ND	N	28	370
5	Wiscasset	VP-183-07	ABA	ND	N	28	370
5	Wiscasset	VP-183-08	ABA	ND	N	791	370
5	Wiscasset	VP-183-09	NVP	ND	N	28	370
5	Wiscasset	VP-183-10	NVP	ND	N	28	370
5	Wiscasset	VP-183-11	NVP	ND	N	28	370
5	Wiscasset	VP-183-12	ABA	ND	N	477	370
5	Wiscasset	VP-183-13	ABA	ND	N	28	370
5	Wiscasset	VP-183-14	NVP	ND	N	1,578	369
5	Wiscasset	VP-183-15	ABA	ND	N	135	369
5	Wiscasset	VP-183-16	NVP	ND	N	28	369
5	Wiscasset	VP-183-17	ABA	ND	N	28	370
5	Wiscasset	VP-184-01	NVP	ND	N	1,189	369
5	Woolwich	VP-184-02	NVP	ND	N	8	367
5	Woolwich	VP-185-01	ABA	ND	N	28	366
5	Woolwich	VP-185-02	NVP	ND	N	28	366
5	Woolwich	VP-185-03	NVP	ND	N	2,224	366
5	Woolwich	VP-185-04	NVP	ND	N	28	366
5	Woolwich	VP-185-05	NVP	ND	N	28	366
5	Woolwich	VP-185-06	NVP	ND	N	28	366
5	Woolwich	VP-185-07	NVP	ND	N	28	366
5	Woolwich	VP-185-08	ABA	ND	N	28	366
5	Wiscasset	VP-186-01	NVP	ND	N	1,672	365
5	Wiscasset	VP-186-02	NVP	ND	N	496	365
5	Wiscasset	VP-186-03	NVP	ND	N	1,201	365
5	Wiscasset	VP-186-04	NVP	ND	N	28	364, 365
5	Wiscasset	VP-186-05	NVP	ND	N	3,313	364

**Exhibit 7-6: Non-Significant Federal and State Jurisdictional Vernal Pools** 

Segment	Town	Pool ID	Vernal Pool Type MDIFW (NVP, ABA, Determination SVP) <sup>1</sup>		Clearing within 250 feet <sup>3</sup> (Y/N)	Pool Area (sq. ft.) <sup>4</sup>	NRM Sheet(s)	
5	Wiscasset	VP-186-06	ABA	ND	N	28	364	
5	Wiscasset	VP-186-07	ABA	ND	N	28	364	
5	Wiscasset	VP-186-08	NVP	ND	N	8	364	
5	Wiscasset	VP-186-09	NVP	ND	N	1,807	364	
5	Wiscasset	VP-186-10	NVP	ND	N	28	364	
5	Wiscasset	VP-186-11	NVP	ND	N	28	364	
5	Wiscasset	VP-186-12	NVP	ND	N	28	364	
5	Wiscasset	VP-186-13	ABA	ND	N	28	363, 364	
5	Wiscasset	VP-186-14	NVP	ND	N	1,046	363, 364	
5	Wiscasset	VP-186-15	NVP	ND	N	3,724	363, 364	
5	Wiscasset	VP-186-16	NVP	ND	N	28	363	
5	Wiscasset	VP-186-17	NVP	ND	N	2,060	363	
5	Wiscasset	VP-186-18	NVP	ND	N	256	363	
5	Wiscasset	VP-186-19	NVP	ND	N	969	364	
5	Wiscasset	VP-187-01	NVP	ND	N	1,234	362	
5	Wiscasset	VP-187-02	NVP	ND	N	614	362	
5	Wiscasset	VP-188-01	ABA	ND	N	28	360	
5	Wiscasset	VP-188-02	NVP	ND	N	28	359, 360	
5	Wiscasset	VP-NP-1	ABA	ND	N	7	361	
Fickett	Pownal	VP-161-10	ABA	ND	N	28	358	
Merrill	Lewiston	VP-144-01	NVP	ND	N	28	320	

# **Exhibit 7-7: NECEC Water Body Crossing Table**

### Footnotes for the NECEC Waterbody Crossing Table (Exhibit 7-7)

**General Notes:** The waterbody crossing table is based on data collected in the field, input from agency representatives during consultation, USGS National Hydrography dataset and ESRI ArcGIS mapping services.

- 1. Stream names are based on the USGS National Hydrography dataset. Tributary names were assigned based on review of watershed areas and drainage patterns.
- 2. Waterbody crossings widths were based on field data collected in 2015, 2016 and 2017.
- 3. Stream types: Perennial (PER) or Intermittent (INT). Open Water (Open Water). Stream types were based on field data collected in 2015, 2016 and 2017.
- 4. State of Maine Water Quality Classifications

Source: The Bureaus of Land Resources and Water Quality- Waterbody Statutory Classification dataset <a href="http://www.maine.gov/dep/gis/datamaps/">http://www.maine.gov/dep/gis/datamaps/</a>

#### Class

AA Class AA shall be the highest classification and shall be applied to waters which are outstanding natural resources and which should be preserved because of their ecological, social, scenic, or recreational importance. Class AA waters shall be of such quality that they are suitable for the designated uses of drinking water after disinfection, fishing, recreation in and on the water and navigation and as habitat for fish and other aquatic life. The habitat shall be characterized as free flowing and natural.

A Class A waters shall be of such quality that they are suitable for the designated uses of drinking water after disinfection; fishing; recreation in or on the water; industrial power generation, except as prohibited under Title 12, section 403; and navigation; and as habitat for fish and other aquatic life. The habitat shall be characterized as natural.

**B** Class B waters shall be of such quality that they are suitable for the designated uses of drinking water supply after treatment; fishing; recreation in and on the water; industrial processes and cooling water supply; 403; and navigation; and as habitat for fish and other aquatic life. The habitat shall be characterized as unimpaired.

C Class C waters shall be of such quality that they are suitable for the designated uses of drinking water supply after treatment; fishing; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; and navigation; and as a habitat for fish and other aquatic life.

**GPA** Class GPA shall be the sole classification of great ponds and natural ponds and lakes less than 10 acres in size. Class GPA waters shall be of such quality that they are suitable for the designated uses of drinking water after disinfection, recreation in and on the water, fishing, industrial process and cooling water supply, hydroelectric power generation and navigation, and as habitat for fish and other aquatic life. The habitat shall be characterized as natural.

N/A or "Not Available" indicates that a classification for this waterbody was not available from the referenced source.

- 5. Source: Cushing, E. Atlantic Salmon: Critical Habitat dataset. 1994. National Oceanic Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS). http://www.nmfs.noaa.gov/gis/data/critical.htm#ne. Accessed May 16, 2017.
  - a. This dataset represents critical habitat for the Gulf of Maine distinct population segment of Atlantic salmon as designated by *Federal Register* Vol. 74, page 29300, June 19, 2009.
- 6. Source: Bruchs, C. Atlantic salmon habitat. GISVIEW.MEGIS.Ashab3\_new. 2016. Maine Office of GIS Data Catalog. Edition 2016-03-31. http://www.maine.gov/megis/catalog/. Accessed May 16, 2017.
  - a. This dataset is meant to be used in tracking general Atlantic salmon habitat survey work on selected Maine streams by staff of the Maine Dept. of Marine Resources Division of Sea Run Fisheries and Habitat as well as others involved in Atlantic Salmon research, management and conservation. This dataset is designed to be used in a variety of management and planning activities including habitat protection efforts.
- 7. The Brook Trout classifications were provided as a GIS shapefile by MDIFW. "Y" or "YES" = "Likely Brook Trout Habitat" which identifies waterbodies which have been surveyed and mapped by the MDIFW. "N/A" or "Not Available" identifies waterbodies that have not been surveyed or mapped by the resource agency.
- 8. The width of the additional corridor clearing required is the average width of tree clearing required for that associated Segment.
- 9. Where temporary equipment crossings are proposed, no in-stream work will take place. The bridges will be designed to span the entire width to avoid in-stream work.

## **Exhibit 7-7: NECEC Waterbody Crossing Table**

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Beattie Twp	E	ISTR-01-02	Trib. to West Branch Mill Brook	2	INT	N/A	N	N	N/A	439	150	Y	3
1	Skinner Twp	E	ISTR-08-01	Trib. to West Branch Moose River	4	INT	A	N	N	N/A	382	150	Y	20, 21
1	Appleton Twp	Е	WB-16-101	Water body assoc. with trib. to Gold Brook	30	Open Water	N/A	N	N	N/A	131	150	N	37
1	Bradstreet Twp	Е	ISTR-24-01	Trib. to Bitter Brook	2	INT	A	N	N	N/A	435	150	Y	56
1	Johnson Mountain Twp	E	ISTR-39-01	Trib. to Cold Stream	4	INT	N/A	Y	N	N/A	220	150	N	89
1	Johnson Mountain Twp	E	ISTR-39-03	Trib. to East Branch Salmon Stream	4	INT	N/A	Y	N	N/A	274	150	N	88
1	Johnson Mountain Twp	Е	ISTR-42-09	Trib. to Tomhegan Stream	5	INT	N/A	Y	N	N/A	133	150	N	94
1	West Forks Plt	D	ISTR-45-02- 02	Trib. to Tomhegan Stream	3	INT	N/A	Y	N	N/A	317	150	N	100
1	West Forks Plt	D	ISTR-46-05	Trib. to Cold Stream	4	INT	N/A	Y	N	N/A	43	150	N	103
1	West Forks Plt	D	ISTR-48-02	Trib. To Kennebec River	3	INT	N/A	Y	N	N/A	89	150	N	108, 109
1	Moxie Gore	D	ISTR-49-01	Trib. to Moxie Stream	5	INT	N/A	Y	N	N/A	375	150	N	111
1	Moxie Gore	D	ISTR-51-07	Trib. to Moxie Stream	2	INT	N/A	Y	N	N/A	269	150	N	114
1	Moxie Gore	D	ISTR-51-15	Trib. to Moxie Stream	1.5	INT	N/A	Y	N	N/A	353	150	N	115

## **Exhibit 7-7: NECEC Waterbody Crossing Table**

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Moxie Gore	D	ISTR-51-16	Trib. to Moxie Stream	3	INT	N/A	Y	N	N/A	320	150	N	115
1	The Forks Plt	D	ISTR-52-07	Trib. to Moxie Stream	3	INT	N/A	Y	N	N/A	394	150	N	116
1	Moxie Gore/The Forks Plt	D	ISTR-52-08	Trib. to Moxie Stream	1	INT	N/A	Y	N	N/A	227	150	N	116
1	The Forks Plt	D	ISTR-52-12	Trib. to Moxie Stream	2	INT	N/A	Y	N	N/A	258	150	N	116, 117
1	Appleton Twp	Е	ISTR-RR-11- 01	Trib. to Bog Brook	5	INT	A	N	N	N/A	517	150	N	27
1	Appleton Twp/Skinner Twp	E	ISTR-RR-11- 3-RR1	Trib. to Bog Brook	3	INT	N/A	N	N	N/A	328	150	N	27
1	Appleton Twp/Skinner Twp	E	ISTR-RR1-1	Trib. to Bog Brook	5	INT	N/A	N	N	N/A	348	150	N	27
1	Appleton Twp	Е	ISTR-RR1-2	Trib. to Bog Brook	2	INT	N/A	N	N	N/A	230	150	N	27
1	Beattie Twp	E	PSTR-00-10	Trib. to West Branch Mill Brook	3	PER	A	N	N	N/A	21	150	N	3
1	Skinner Twp	Е	PSTR-09-11	South Branch Moose River	46	PER	A	N	N	N/A	524	150	N	21
1	Appleton Twp	Е	PSTR-11-07- RR1	Trib. to Bog Brook	6	PER	A	N	N	N/A	378	150	N	27
1	Appleton Twp	Е	PSTR-11-08- RR1		4	PER	A	N	N	N/A	353	150	N	27
1	Appleton Twp	Е	PSTR-15-06		25	PER	A	Y	N	Y	187	150	N	36
1	Appleton Twp	Е	PSTR-17R- 03	Baker Stream	12	PER	A	Y	N	Y	159	150	N	39
1	T5 R7 BKP WKR	Е	PSTR-23-02	Whipple Brook	60	PER	A	Y	N	Y	128	150	N	52
1	Bradstreet Twp	Е	PSTR-24-03	Bitter Brook	45	PER	A	N	N	N/A	462	150	N	55

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)		Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Johnson Mountain Twp	E	PSTR-39-02	Trib. to Cold Stream	2	PER	N/A	Y	N	Y	128	150	N	88, 89
1	Appleton Twp	E	PSTR-RR1-3	Trib. to Bog Brook	4	PER	A	N	N	N/A	389	150	Y	27
1	West Forks Plt/Moxie Gore	D	PSTR-48-03	Kennebec River	300	PER	AA	Y	N	Y	399	150	N	109
1	Moxie Gore	D	STRM-50-01	Moxie Stream	80	PER	AA	Y	N	Y	401	150	N	113
1	Moxie Gore	D	ISTR-50-02	Trib. to Moxie Stream	1.5	INT	N/A	Y	N	Y	37	150	N	113
1	Moxie Gore	D	ISTR-51-01	Trib. to Moxie Stream	80	INT	N/A	Y	N	Y	331	150	N	113
1	Moxie Gore	D	ISTR-51-02	Trib. to Moxie Stream	5	INT	N/A	Y	N	Y	279	150	N	113
1	Moxie Gore	D	ISTR-51-03	Trib. to Moxie Stream	4	INT	N/A	Y	N	Y	292	150	N	113
1	Moxie Gore	D	ISTR-51-04	Trib. to Moxie Stream	2	INT	N/A	Y	N	Y	325	150	N	113
1	Moxie Gore	D	ISTR-51-05	Trib. to Moxie Stream	8	INT	N/A	Y	N	Y	361	150	N	113
1	Moxie Gore	D	ISTR-51-06	Trib. to Moxie Stream	3	INT	N/A	Y	N	Y	383	150	N	113, 114
1	Moxie Gore	D	ISTR-51-08	Trib. to Moxie Stream	1.5	INT	N/A	Y	N	Y	244	150	N	114, 115
1	Moxie Gore	D	ISTR-51-09	Trib. to Moxie Stream	3	INT	N/A	Y	N	Y	267	150	N	114, 115
1	Moxie Gore	D	ISTR-51-10	Trib. to Moxie Stream	6	INT	N/A	Y	N	Y	312	150	N	114, 115

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Moxie Gore	D	ISTR-51-11	Trib. to Moxie Stream	4	INT	N/A	Y	N	Y	307	150	N	114, 115
1	Moxie Gore	D	ISTR-51-12	Trib. to Moxie Stream	3	INT	N/A	Y	N	Y	522	150	N	114, 115
1	Moxie Gore	D	ISTR-51-13	Trib. to Moxie Stream	6	INT	N/A	Y	N	Y	333	150	N	115
1	Moxie Gore	D	ISTR-51-14	Trib. to Moxie Stream	5	INT	N/A	Y	N	Y	3	150	N	115
1	Moxie Gore	D	ISTR-51-17	Trib. to Moxie Stream	2	INT	N/A	Y	N	Y	235	150	N	115
1	Moxie Gore	D	ISTR-51-18	Trib. to Moxie Stream	2	INT	N/A	Y	N	Y	226	150	N	115
1	Moxie Gore	D	ISTR-51-19	Trib. to Moxie Stream	2	INT	N/A	Y	N	Y	251	150	N	115
1	Moxie Gore	D	ISTR-51-20	Trib. to Moxie Stream	1.5	INT	N/A	Y	N	Y	215	150	N	115
1	Moxie Gore	D	ISTR-51-21	Trib. to Moxie Stream	3	INT	N/A	Y	N	Y	416	150	N	115
1	Moxie Gore	D	ISTR-52-01	Trib. to Moxie Stream	5	INT	N/A	Y	N	Y	337	150	N	115, 116
1	Moxie Gore	D	ISTR-52-02	Trib. to Moxie Stream	3	INT	N/A	Y	N	Y	317	150	N	115, 116
1	Moxie Gore	D	ISTR-52-03	Trib. to Moxie Stream	3	INT	N/A	Y	N	Y	295	150	N	115, 116
1	Moxie Gore	D	ISTR-52-04	Trib. to Moxie Stream	5	INT	N/A	Y	N	Y	304	150	N	116
1	Moxie Gore	D	ISTR-52-05	Trib. to Moxie Stream	5	INT	N/A	Y	N	Y	299	150	N	116

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Moxie Gore	D	ISTR-52-06	Trib. to Moxie Stream	2	INT	N/A	Y	N	Y	379	150	N	116
1	The Forks Plt	D	ISTR-52-09	Trib. to Moxie Stream	2	INT	N/A	Y	N	Y	192	150	N	116
1	The Forks Plt	D	ISTR-52-10	Trib. to Moxie Stream	3	INT	N/A	Y	N	Y	62	150	N	116, 117
1	The Forks Plt	D	ISTR-52-11	Trib. to Moxie Stream	4	INT	N/A	Y	N	Y	195	150	N	116, 117
1	The Forks Plt	D	ISTR-52-13	Trib. to Moxie Stream	8	INT	N/A	Y	N	Y	518	150	N	117
1	The Forks Plt	D	ISTR-52-14	Trib. to Moxie Stream	6	INT	N/A	Y	N	Y	419	150	N	117
1	The Forks Plt	D	ISTR-52-15	Trib. to Moxie Stream	5	INT	N/A	Y	N	Y	486	150	N	117
1	The Forks Plt	D	ISTR-52-16	Trib. to Moxie Stream	2	INT	N/A	Y	N	Y	288	150	N	117
1	The Forks Plt	D	ISTR-52-17	Trib. to Moxie Stream	2	INT	N/A	Y	N	Y	399	150	N	117
1	Beattie Twp	E	ISTR-00-07	Trib. to West Branch Mill Brook	1	INT	N/A	N	N	N/A	408	150	N	1
1	Beattie Twp	Е	ISTR-01-11	Trib. to Mill Brook	1	INT	N/A	N	N	N/A	644	150	N	5
1	Skinner Twp	Е	ISTR-05-05	Trib. to Smart Brook	1	INT	N/A	N	N	N/A	103	150	N	13
1	Skinner Twp	Е	ISTR-10-04	Trib. to Bog Brook	1	INT	N/A	N	N	N/A	108	150	N	25
1	Appleton Twp	Е	ISTR-12-02	Trib. to Bog Brook	1	INT	N/A	N	N	N/A	510	150	N	29
1	Appleton Twp	Е	ISTR-12-12	Trib. to Bog Brook	1	INT	N/A	N	N	N/A	348	150	N	30

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)		Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Appleton Twp	Е	ISTR-14-11	Trib. to Gold Brook	1	INT	N/A	N	N	N/A	293	150	N	34
1	Johnson Mountain Twp	Е	ISTR-41-02	Trib. to Tomhegan Stream	1	INT	N/A	Y	N	N/A	484	150	Y	94
1	Johnson Mountain Twp	E	ISTR-41-04	Trib. to Cold Stream	2	PER	N/A	Y	N	Y	342	150	N	92, 93
1	Beattie Twp	Е	ISTR-01-12	Trib. to Mill Brook	1.5	INT	N/A	N	N	N/A	668	150	N	5
1	Beattie Twp	E	ISTR-02-09	Trib. to Number One Brook	1.5	INT	N/A	N	N	N/A	464	150	N	7
1	Skinner Twp	Е	ISTR-05-09	Trib. to Smart Brook	1.5	INT	N/A	N	N	N/A	99	150	N	12
1	Skinner Twp	Е	ISTR-06-04	Trib. to Smart Brook	1.5	INT	N/A	N	N	N/A	52	150	N	16
1	Appleton Twp	Е	ISTR-12-09	Trib. to Bog Brook	1.5	INT	N/A	N	N	N/A	368	150	N	28
1	Appleton Twp	Е	ISTR-12-11	Trib. to Bog Brook	1.5	INT	N/A	N	N	N/A	321	150	N	30
1	Appleton Twp	Е	ISTR-14-37	Trib. to Barrett Brook	1.5	INT	N/A	N	N	N/A	416	150	N	33
1	Johnson Mountain Twp	E	ISTR-33-02	Trib. to MountainBr ook	1.5	INT	N/A	Y	N	N/A	214	150	N	76
1	Johnson Mountain Twp	E	ISTR-36-05	Trib. to Salmon Stream	1.5	INT	N/A	Y	N	N/A	393	150	N	83
1	Johnson Mountain Twp	E	ISTR-38-11	Trib. to East Branch Salmon Stream	1.5	INT	A	Y	N	N/A	144	150	N	85, 86
1	Johnson Mountain Twp	E	ISTR-38-13	Trib. to East Branch Salmon Stream	1.5	INT	N/A	Y	N	N/A	206	150	N	85, 86
1	Johnson Mountain Twp	Е	ISTR-38-14	Trib. to East Branch Salmon Stream	1.5	INT	A	Y	N	N/A	82	150	N	85, 86

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Beattie Twp	E	ISTR-02-13	Trib. to Number One Brook	2	INT	N/A	N	N	N/A	115	150	N	7
1	Skinner Twp	Е	ISTR-05-03	Trib. to Smart Brook	2	INT	N/A	N	N	N/A	40	150	Y	13
1	Skinner Twp	Е	ISTR-05-04	Trib. to Smart Brook	2	INT	N/A	N	N	N/A	58	150	N	13
1	Skinner Twp	Е	ISTR-05-10	Trib. to Smart Brook	2	INT	N/A	N	N	N/A	336	150	N	12
1	Skinner Twp	Е	ISTR-06-01	Trib. to Smart Brook	2	INT	A	N	N	N/A	331	150	N	16
1	Skinner Twp	Е	ISTR-06-02	Trib. to Smart Brook	2	INT	N/A	N	N	N/A	361	150	N	16
1	Skinner Twp	Е	ISTR-06-03	Trib. to Smart Brook	2	INT	A	N	N	N/A	249	150	N	16
1	Skinner Twp	Е	ISTR-06-07	Trib. to Smart Brook	2	INT	N/A	N	N	N/A	277	150	Y	15, 16
1	Skinner Twp	E	ISTR-07-03	Trib. to West Branch Moose River		INT	A	N	N	N/A	133	150	N	18
1	Skinner Twp	Е	ISTR-07-04	Trib. to West Branch Moose River	2	INT	N/A	N	N	N/A	365	150	N	18
1	Skinner Twp	Е	ISTR-07-08	Trib. to Hay Bog Brook	2	INT	N/A	N	N	N/A	169	150	N	17
1	Skinner Twp	E	ISTR-09-03	Trib. to South Branch Moose River	2	INT	N/A	N	N	N/A	549	150	N	22
1	Skinner Twp	Е	ISTR-09-04	Trib. to South Branch Moose River	2	INT	A	N	N	N/A	267	150	N	22

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Skinner Twp	E	ISTR-09-07	Trib. to South Branch Moose River	2	INT	N/A	N	N	N/A	271	150	N	22, 23
1	Skinner Twp	E	ISTR-09-08	Trib. to South Branch Moose River	2	INT	N/A	N	N	N/A	235	150	N	23
1	Skinner Twp	Е	ISTR-09-09	Trib. to South Branch Moose River	2	INT	N/A	N	N	N/A	183	150	N	22
1	Skinner Twp	Е	ISTR-10-09	Trib. to Bog Brook	2	INT	N/A	N	N	N/A	60	150	N	25
1	Appleton Twp	Е	ISTR-12-01	Trib. to Bog Brook	2	INT	N/A	N	N	N/A	451	150	N	29
1	Appleton Twp	Е	ISTR-12-05	Trib. to Bog Brook	2	INT	N/A	N	N	N/A	380	150	N	29, 30
1	Appleton Twp	Е	ISTR-13-01	Trib. to Barrett Brook	2	INT	N/A	N	N	N/A	166	150	N	32
1	Appleton Twp	E	ISTR-13-02	Trib. to Barrett Brook	2	INT	N/A	N	N	N/A	149	150	N	32
1	Appleton Twp	E	ISTR-13-08	Trib. to Barrett Brook	2	INT	N/A	N	N	N/A	485	150	N	31
1	Appleton Twp	Е	ISTR-13-10	Trib. to Barrett Brook	2	INT	N/A	N	N	N/A	90	150	N	31
1	Appleton Twp	Е	ISTR-13-15	Trib. to Bog Brook	2	INT	N/A	N	N	N/A	242	150	Y	30, 31
1	Appleton Twp	Е	ISTR-13-16	Trib. to Bog Brook	2	INT	N/A	N	N	N/A	257	150	N	30, 31
1	Appleton Twp	Е	ISTR-14-03	Trib. to Gold Brook	2	INT	N/A	N	N	N/A	205	150	N	34
1	Appleton Twp	Е	ISTR-14-04	Trib. to Gold Brook	2	INT	N/A	N	N	N/A	170	150	N	34

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Appleton Twp	Е	ISTR-14-05	Trib. to Gold Brook	2	INT	N/A	N	N	N/A	284	150	N	34
1	Appleton Twp	Е	ISTR-14-08	Trib. to Gold Brook	2	INT	N/A	N	N	N/A	194	150	N	34
1	Appleton Twp	E	ISTR-14-09	Trib. to Gold Brook	2	INT	N/A	N	N	N/A	173	150	N	34
1	Appleton Twp	Е	ISTR-14-10	Trib. to Gold Brook	2	INT	N/A	N	N	N/A	120	150	N	34
1	Appleton Twp	Е	ISTR-14-23	Trib. to Barrett Brook	2	INT	N/A	N	N	N/A	443	150	N	33
1	Appleton Twp	Е	ISTR-14-27	Trib. to Barrett Brook	2	INT	N/A	N	N	N/A	339	150	N	33
1	Appleton Twp	E	ISTR-14-45	Trib. to Barrett Brook	2	INT	N/A	N	N	N/A	512	150	N	33
1	Appleton Twp	E	ISTR-14-46	Trib. to Barrett Brook	2	INT	N/A	N	N	N/A	639	150	N	33
1	Appleton Twp	E	ISTR-14-51	Trib. to Barrett Brook	2	INT	N/A	N	N	N/A	114	150	N	33
1	Appleton Twp	E	ISTR-14-62	Trib. to Barrett Brook	2	INT	N/A	N	N	N/A	206	150	Y	32
1	Appleton Twp	E	ISTR-14-66	Trib. to Barrett Brook	2	INT	N/A	N	N	N/A	512	150	N	32
1	Appleton Twp	Е	ISTR-15-02	Trib. to Gold Brook	2	INT	N/A	Y	N	N/A	178	150	Y	35
1	Appleton Twp	Е	ISTR-15-05	Trib. to Gold Brook	2	INT	N/A	Y	N	N/A	12	150	N	35
1	Appleton Twp	Е	ISTR-15-09	Trib. to Gold Brook	2	INT	A	Y	N	Y	223	150	N	36
1	Appleton Twp	Е	ISTR-15-12	Trib. to Gold Brook	2	INT	N/A	Y	N	N/A	297	150	N	36
1	Appleton Twp	Е	ISTR-15-18	Trib. to Gold Brook	2	INT	N/A	N	N	N/A	382	150	N	34
1	Appleton Twp	Е	ISTR-16-16	Trib. to Gold Brook	2	INT	A	Y	N	Y	52	150	N	37

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Appleton Twp	Е	ISTR-17-04	Trib. To Rock Pond	2	INT	N/A	Y	N	N/A	424	150	N	40
1	Appleton Twp	Е	ISTR-17R-05	Trib. To Rock Pond	2	INT	N/A	Y	N	N/A	554	150	N	40
1	Parlin Pond Twp	E	ISTR-30-02	Trib. to Piel Brook	2	INT	N/A	N	N	N/A	227	150	N	69
1	Johnson Mountain Twp	E	ISTR-35-02	Trib. to Salmon Stream	2	INT	A	Y	N	N/A	423	150	N	80
1	Johnson Mountain Twp	Е	ISTR-36-01	Trib. to Salmon Stream	2	INT	N/A	Y	N	N/A	379	150	N	83
1	Johnson Mountain Twp	E	ISTR-36-04	Trib. to Salmon Stream	2	INT	N/A	Y	N	N/A	440	150	N	83
1	Johnson Mountain Twp	E	ISTR-38-01	Trib. to East Branch Salmon Stream	2	INT	N/A	Y	N	N/A	213	150	N	87
1	Johnson Mountain Twp	E	ISTR-38-08	Trib. to East Branch Salmon Stream	2	INT	N/A	Y	N	N/A	131	150	N	86
1	Johnson Mountain Twp	Е	ISTR-38-12	Trib. to East Branch Salmon Stream	2	INT	A	Y	N	N/A	99	150	N	85, 86
1	Johnson Mountain Twp	Е	ISTR-41-04	Trib. to Cold Stream	2	INT	N/A	Y	N	N/A	140	150	N	92, 93
1	Johnson Mountain Twp	Е	ISTR-42-10	Trib. to Tomhegan Stream	2	INT	N/A	Y	N	N/A	124	150	N	94
1	Appleton Twp	Е	ISTR-RR-11- 03	Trib. to Bog Brook	2	INT	N/A	N	N	N/A	343	150	N	27
1	Appleton Twp	Е	ISTR-RR-12- 01	Trib. to Bog Brook	2	INT	A	N	N	N/A	174	150	N	27, 28
1	Bradstreet Twp	Е	ISTR-SR-29- 03	Trib. To Fourmile Brook	2	INT	N/A	N	N	N/A	174	150	N	66

Segment	Town	MDIFW Region	Feature ID		Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Appleton Twp	Е	PSTR-14-28	Trib. to Barrett Brook	2	PER	N/A	N	N	N/A	142	150	Y	33
1	Appleton Twp	E	PSTR-14-34	Trib. to Barrett Brook	2	PER	N/A	N	N	N/A	257	150	N	33
1	Johnson Mountain Twp	Е	PSTR-40-08	Trib. to Cold Stream	2	PER	N/A	Y	N	Y	353	150	N	91
1	Johnson Mountain Twp	E	PSTR-40-09	Trib. to Cold Stream	2	PER	N/A	Y	N	Y	300	150	N	91
1	Beattie Twp	Е	ISTR-01-10	Trib. to Mill Brook	2.5	INT	A	N	N	N/A	663	150	N	5
1	Skinner Twp	Е	ISTR-05-08	Trib. to Smart Brook	2.5	INT	N/A	N	N	N/A	163	150	N	12
1	Johnson Mountain Twp	Е	ISTR-36-02	Trib. to Salmon Stream	2.5	INT	A	Y	N	N/A	254	150	Y	82, 83
1	Johnson Mountain Twp	E	ISTR-37-01	Trib. to East Branch Salmon Stream	2.5	INT	N/A	Y	N	N/A	223	150	N	84
1	Beattie Twp	Е	ISTR-MS-02- 10	Trib. to Number One Brook	2.5	INT	N/A	N	N	N/A	272	150	N	7
1	Beattie Twp	E	PSTR-01-09	Trib. To Mill Brook	2.5	PER	A	N	N	N/A	726	150	N	5
1	Beattie Twp	E	ISTR-00-01	Trib. to West Branch Mill Brook	3	INT	N/A	N	N	N/A	402	150	N	1
1	Beattie Twp	E	ISTR-00-08	Trib. to West Branch Mill Brook	3	INT	N/A	N	N	N/A	176	150	N	1
1	Beattie Twp	E	ISTR-02-04	Trib. to Number One Brook	3	INT	N/A	N	N	N/A	310	150	N	7
1	Beattie Twp	Е	ISTR-02-08	Trib. to Number One Brook	3	INT	N/A	N	N	N/A	429	150	N	7

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Skinner Twp	Е	ISTR-05-06	Trib. to Smart Brook	3	INT	N/A	N	N	N/A	328	150	N	12, 13
1	Skinner Twp	Е	ISTR-05-07	Trib. to Smart Brook	3	INT	N/A	N	N	N/A	454	150	N	12, 13
1	Skinner Twp	Е	ISTR-06-05	Trib. to Smart Brook	3	INT	N/A	N	N	N/A	152	150	Y	16
1	Skinner Twp	Е	ISTR-06-08	Trib. to Smart Brook	3	INT	N/A	N	N	N/A	65	150	N	15
1	Skinner Twp	Е	ISTR-07-01	Trib. to West Branch Moose River	3	INT	N/A	N	N	N/A	73	150	N	18, 19
1	Skinner Twp	Е	ISTR-07-07	Trib. to Hay Bog Brook	3	INT	N/A	N	N	N/A	417	150	N	17
1	Skinner Twp	E	ISTR-09-10	Trib. to South Branch Moose River	3	INT	N/A	N	N	N/A	376	150	N	21, 22
1	Skinner Twp	Е	ISTR-10-10	Trib. to Bog Brook	3	INT	N/A	N	N	N/A	190	150	N	25
1	Appleton Twp	Е	ISTR-12-04	Trib. to Bog Brook	3	INT	N/A	N	N	N/A	408	150	N	29, 30
1	Appleton Twp	Е	ISTR-14-06	Trib. to Gold Brook	3	INT	N/A	N	N	N/A	287	150	N	34
1	Appleton Twp	Е	ISTR-14-67	Trib. to Barrett Brook	3	INT	N/A	N	N	N/A	361	150	Y	32
1	Appleton Twp	Е	ISTR-15-10	Trib. to Gold Brook	3	INT	N/A	Y	N	N/A	257	150	N	36
1	Appleton Twp	E	PSTR-16-01	Trib. to Baker Stream	25	INT	N/A	Y	N	N/A	285	150	N	37
1	Appleton Twp	E	ISTR-17-02	Trib. to Baker Stream	3	INT	N/A	Y	N	N/A	20	150	Y	39
1	T5 R7 BKP WKR	Е	ISTR-18-08	Trib. to Fish Pond	3	INT	N/A	Y	N	N/A	429	150	N	41, 42
1	T5 R7 BKP WKR/Hobbsto wn Twp	Е	ISTR-18-11	Trib. to Fish Pond	3	INT	N/A	Y	N	N/A	405	150	N	42

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Bradstreet Twp	Е	ISTR-26-03	Trib. to Horse Brook	3	INT	N/A	N	N	N/A	60	150	N	60
1	Bradstreet Twp	E	ISTR-26-04	Trib. to Horse Brook	3	INT	N/A	N	N	N/A	45	150	N	60
1	Johnson Mountain Twp	Е	ISTR-38-03	Trib. to East Branch Salmon Stream	3	INT	N/A	Y	N	N/A	528	150	N	87
1	Johnson Mountain Twp	E	ISTR-38-07	East Branch Salmon Stream	3	INT	A	Y	N	N/A	115	150	N	86, 87
1	Johnson Mountain Twp	Е	ISTR-42-08	Trib. to Tomhegan Stream	3	INT	N/A	Y	N	N/A	221	150	N	94
1	West Forks Plt	D	ISTR-44-08	Tomhegan Stream	3	INT	A	Y	N	N/A	231	150	N	100
1	West Forks Plt	D	ISTR-45-04	Trib. to Tomhegan Stream	3	INT	N/A	Y	N	N/A	311	150	N	100, 101
1	Beattie Twp	Е	ISTR-MS-02- 08	Trib. to Number One Brook	3	INT	N/A	N	N	N/A	359	150	N	7
1	Beattie Twp	Е	ISTR-MS-02- 09	Trib. to Number One Brook	3	INT	N/A	N	N	N/A	359	150	N	7
1	Skinner Twp	Е	ISTR-RR-11- 04		3	INT	A	N	N	N/A	8	150	N	26
1	Beattie Twp	Е	PSTR-00-06	Trib. to West Branch Mill Brook	3	PER	A	N	N	N/A	398	150	N	1
1	Appleton Twp	Е	PSTR-16-10	Trib. to Gold Brook	3	PER	A	Y	N	Y	313	150	N	37
1	Appleton Twp	Е	PSTR-16- 101	Trib. to Gold Brook	3	PER	A	Y	N	Y	226	150	N	37
1	T5 R7 BKP WKR	Е	PSTR-18-15	Trib. to Fish Pond	3	PER	A	Y	N	Y	198	150	N	41

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Hobbstown Twp	E	PSTR-20-01	Trib. to Little Spencer Stream	3	PER	A	Y	N	Y	443	150	N	46
1	T5 R7 BKP WKR	Е	PSTR-23-01	Trib. to Whipple Brook	3	PER	N/A	Y	N	Y	258	150	N	52
1	Bradstreet Twp	E	PSTR-26-05	Trib. to Horse Brook	3	PER		N	N	N/A	298	150	N	60
1	West Forks Plt	D	PSTR-44-07	Tomhegan Stream	3	PER	N/A	Y	N	N/A	37	150	N	100
1	Beattie Twp	E	ISTR-MS-02- 11	Trib. to Number One Brook	3.5	INT	N/A	N	N	N/A	512	150	N	7
1	Beattie Twp	Е	ISTR-02-01	Trib. to Number One Brook	4	INT	N/A	N	N	N/A	505	150	N	7
1	Skinner Twp	E	ISTR-08-02	Trib. to West Branch Moose River		INT	A	N	N	N/A	421	150	N	20, 21
1	Skinner Twp	Е	ISTR-09-05	Trib. to South Branch Moose River		INT	A	N	N	N/A	199	150	N	22, 23
1	Appleton Twp	Е	ISTR-12-06	Trib. to Bog Brook	4	INT	N/A	N	N	N/A	409	150	N	29, 30
1	Appleton Twp	E	ISTR-14-01	Trib. to Gold Brook	4	INT	N/A	N	N	N/A	328	150	N	34
1	Appleton Twp	E	ISTR-16-04	Trib. to Gold Brook	4	INT	A	Y	N	Y	465	150	N	37
1	Appleton Twp	E	ISTR-16-05	Trib. to Gold Brook	4	INT	A	Y	N	Y	182	150	N	37
1	T5 R7 BKP WKR	E	ISTR-18-16	Trib. to Fish Pond	4	INT	A	Y	N	Y	48	150	N	41
1	Johnson Mountain Twp	Е	PSTR-31-02	Trib. to Piel Brook	3	INT	N/A	N	N	N/A	214	150	N	68, 69

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Johnson Mountain Twp	Е	ISTR-38-05	Trib. to East Branch Salmon Stream	4	INT	A	Y	N	N/A	72	150	Y	86, 87
1	Johnson Mountain Twp	Е	ISTR-41-05	Trib. to Cold Stream	4	INT	N/A	Y	N	N/A	466	150	N	93
1	Johnson Mountain Twp	E	ISTR-42-02	Trib. to Tomhegan Stream	4	INT	N/A	Y	N	N/A	279	150	N	96
1	Johnson Mountain Twp	E	ISTR-42-13	Trib. To Little Wilson Hill Pond	4	INT	N/A	Y	N	N/A	329	150	Y	94
1	West Forks Plt	D	ISTR-45-02	Trib. to Tomhegan Stream	4	INT	N/A	Y	N	N/A	281	150	N	100
1	Bradstreet Twp	Е	ISTR-SRD1- 28-03	Fourmile Brook	4	INT	A	N	N	N/A	5	150	Y	63
1	Skinner Twp	Е	PSTR-05-02	Smart Brook	4	PER	A	N	N	N/A	8	150	N	13
1	Skinner Twp	Е	PSTR-09-06	Trib. to South Branch Moose River	4	PER	Α	N	N	N/A	100	150	N	22, 23
1	Appleton Twp	E	PSTR-14-30	Trib. to Barrett Brook	4	PER	N/A	N	N	N/A	185	150	N	33
1	Appleton Twp	Е	PSTR-14-36	Trib. to Barrett Brook	4	PER	N/A	N	N	N/A	329	150	N	33
1	Appleton Twp	E	PSTR-14-68	Trib. to Barrett Brook	4	PER	N/A	N	N	N/A	109	150	Y	32
1	Appleton Twp	E	PSTR-15-04	Trib. to Gold Brook	4	PER	N/A	Y	N	Y	93	150	N	35, 36
1	Appleton Twp	E	PSTR-16-14	Trib. to Gold Brook	4	PER	A	Y	N	Y	176	150	N	37
1	T5 R7 BKP WKR/Hobbsto wn Twp	Е	PSTR-18-06	Trib. to Fish Pond	4	PER	A	Y	N	Y	527	150	N	42

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)		Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
				Trib. to East										
1	Johnson Mountain Twp	Е	PSTR-38-02	Branch Salmon Stream	4	PER	A	Y	N	N/A	441	150	N	87
1	Johnson Mountain Twp	Е	PSTR-38-15	Trib. to East Branch Salmon Stream	4	PER	A	Y	N	N/A	146	150	N	85
1	West Forks Plt	D	PSTR-44-09	Tomhegan Stream	4	PER	A	Y	N	N/A	440	150	N	100
1	Bradstreet Twp	E	PSTR-SR-29- 05	Trib. to Piel Brook	4	PER	N/A	N	N	N/A	213	150	N	66, 67
1	Johnson Mountain Twp	E	ISTR-31-01	Trib. to Piel Brook	5	INT	N/A	N	N	N/A	388	150	N	68
1	Johnson Mountain Twp	Е	ISTR-32-01	Trib. to Piel Brook	5	INT	A	N	N	N/A	198	150	N	74
1	Johnson Mountain Twp	Е	ISTR-32-02	Trib. to Piel Brook	5	INT	A	N	N	N/A	163	150	N	74
1	Johnson Mountain Twp	E	ISTR-42-07	Trib. to Tomhegan Stream	5	INT	N/A	Y	N	N/A	177	150	N	94
1	Johnson Mountain Twp	E	ISTR-EM-33- 01	Trib. To Twomile Brook	5	INT	N/A	Y	N	N/A	170	150	N	75
1	Johnson Mountain Twp	E	ISTR-EM-34- 03	Trib. To Mountain	5	INT	N/A	Y	N	N/A	58	150	N	77
1	Johnson Mountain Twp	E	ISTR-EM-34- 05	Trib. To Mountain	5	INT	N/A	Y	N	N/A	142	150	N	77
1	Appleton Twp	E	PSTR-14-24	Trib. to Barrett Brook	5	PER	N/A	N	N	N/A	255	150	Y	33
1	Appleton Twp	E	PSTR-14-47	Trib. to Barrett Brook	5	PER	N/A	N	N	N/A	509	150	N	33
1	T5 R7 BKP WKR/Hobbsto wn Twp	Е	PSTR-18-05	Trib. to Fish Pond	5	PER	A	Y	N	Y	421	150	Y	42

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	T5 R7 BKP WKR	E	PSTR-21-02	Trib. to Little Spencer Stream	5	PER	A	Y	N	Y	454	150	N	48, 49
1	T5 R7 BKP WKR	E	PSTR-21-2A	Trib. to Little Spencer Stream	5	PER	A	Y	N	Y	544	150	N	48, 49
1	Johnson Mountain Twp	E	PSTR-40-07	Trib. to Cold Stream	5	PER	N/A	Y	N	Y	268	150	N	91, 92
1	West Forks Plt	D	PSTR-44-05	Tomhegan Stream	5	PER	A	Y	N	N/A	278	150	N	100
1	West Forks Plt	D	PSTR-44-06	Tomhegan Stream	5	PER	A	Y	N	N/A	167	150	N	100
1	West Forks Plt	D	PSTR-45-03	Trib. to Tomhegan Stream	5	PER	N/A	Y	N	N/A	7	150	Y	100
1	Bradstreet Twp	Е	PSTR-SRD1- 02	Trib. to Piel Brook	5	PER	N/A	N	N	N/A	274	150	N	66
1	West Forks Plt	D	PSTR-45-3	Tomhegan Stream	6	PER	A	Y	N	N/A	249	150	N	100
1	Skinner Twp	Е	PSTR-05-01	Smart Brook	6	PER	A	N	N	N/A	80	150	N	13
1	Skinner Twp	E	PSTR-07-02	Trib. to West Branch Moose River	6	PER	A	N	N	N/A	54	150	N	18
1	Skinner Twp	E	PSTR-08-04	Trib. to West Branch Moose River		PER	A	N	N	N/A	27	150	Y	20
1	Appleton Twp	Е	PSTR-11-07	Trib. to Bog Brook	6	PER	A	N	N	N/A	583	150	N	27
1	Appleton Twp	E	PSTR-14-49	Trib. to Barrett Brook	6	PER	N/A	N	N	N/A	458	150	N	33
1	Johnson Mountain Twp	Е	PSTR-38-06	Trib. to East Branch Salmon Stream	6	PER	A	Y	N	N/A	8	150	Y	86, 87

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Johnson Mountain Twp	E	PSTR-38-10	Trib. to East Branch Salmon Stream	6	PER	A	Y	N	N/A	41	150	N	86
1	Merrill Strip Twp/Beattie Twp	Е	PSTR-LT-1	Trib. to Number One Brook	6	PER	Α	N	N	N/A	190	150	Y	10
1	Appleton Twp	Е	PSTR-14-33	Trib. to Barrett Brook	7	PER	N/A	N	N	N/A	298	150	N	33
1	Bradstreet Twp	Е	ISTR-27-02	Trib. To Fourmile Brook	8	INT	N/A	N	N	N/A	233	150	N	61, 62
1	T5 R7 BKP WKR	Е	PSTR-18-14	Trib. to Fish Pond	8	PER	A	Y	N	Y	123	150	N	41
1	Johnson Mountain Twp	E	PSTR-31-06	Trib. to Piel Brook	8	PER	A	N	N	N/A	100	150	Y	71
1	Bradstreet Twp	E	PSTR-SRD1- 28-04	Fourmile Brook	8	PER	A	N	N	N/A	17	150	N	63
1	Johnson Mountain Twp	E	PSTR-EM- 34-01	Mountain Brook	9	PER	A	Y	N	N/A	31	150	N	76
1	Appleton Twp	Е	PSTR-12-07	Trib. to Bog Brook	10	PER	A	N	N	N/A	264	150	N	28
1	Appleton Twp	Е	PSTR-16-07	Trib. to Gold Brook	10	PER	A	Y	N	Y	178	150	N	37
1	Bradstreet Twp	Е	PSTR-26-01	Trib. to Moose River	10	PER	Α	N	N	N/A	326	150	N	59
1	Johnson Mountain Twp	E	PSTR-31- SRD2-01	Piel Brook	0	PER	A	N	N	N/A	239	150	N	70
1	West Forks Plt	D	PSTR-45-01	Trib. to Cold stream	10	PER	N/A	Y	N	Y	150	150	N	102
1	West Forks Plt	D	PSTR-46-04	Trib. To Kennebec River	10	PER	N/A	Y	N	Y	201	150	N	104
1	Appleton Twp	Е	PSTR-11-07- RR1	Trib. to Bog Brook	6	PER	A	N	N	N/A	583	150	N	27

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Johnson Mountain Twp	E	PSTR-SR-31- 01	Piel Brook	10	PER	A	N	N	N/A	219	150	N	70
1	Bradstreet Twp	Е	PSTR-SRD1- 28-01	Fourmile Brook	10	PER	A	N	N	N/A	6	150	N	63
1	T5 R7 BKP WKR/Hobbsto wn Twp	E	PSTR-21-03	Trib. to Little Spencer Stream	12	PER	AA	Y	N	Y	221	150	N	48
1	Bradstreet Twp	Е	ISTR-30-01	Piel Brook	1	PER	A	N	N	N/A	261	150	N	
1	Johnson Mountain Twp	Е	ISTR-35-02	Trib. to Salmon Stream	2	PER	A	Y	N	N/A	524	150	N	80
1	Appleton Twp	Е	ISTR-15-07	Gold Brook	15	INT	A	Y	N	Y	248	150	N	36
1	Beattie Twp	Е	PSTR-01-05	Mill Brook	15	PER	A	N	N	N/A	612	150	N	4
1	Skinner Twp	Е	PSTR-11-01	Trib. to Bog Brook	15	PER	A	N	N	N/A	125	150	N	26
1	Appleton Twp	Е	PSTR-17R- 04	Baker Stream	15	PER	A	Y	N	Y	390	150	N	39
1	West Forks Plt	D	PSTR-44-01 (TOB)	Tomhegan Stream	15	PER	A	Y	N	N/A	414	150	N	100
1	West Forks Plt	D	PSTR-44-01 EAST	Tomhegan Stream	15	PER	A	Y	N	N/A	290	150	N	100
1	West Forks Plt	D	PSTR-44-01 WEST	Tomhegan Stream	15	PER	A	Y	N	N/A	301	150	N	99, 100
1	West Forks Plt	D	PSTR-44-02	Tomhegan Stream	15	PER	N/A	Y	N	N/A	355	150	N	100
1	West Forks Plt	D	PSTR-44-04	Tomhegan Stream	15	PER	A	Y	N	N/A	228	150	N	100
1	Johnson Mountain Twp	E	PSTR-33-01	Mountain Brook	18	PER	A	Y	N	N/A	33	150	N	76
1	Appleton Twp	E	PSTR-17-07	Baker Stream	20	PER	A	Y	N	Y	354	150	N	39
1	Appleton Twp	Е	PSTR-16-01	Gold Brook	25	PER	A	Y	N	Y	32	150	N	37
1	T5 R7 BKP WKR/Hobbsto wn Twp	Е	PSTR-21-04	Little Spencer Stream	25	PER	AA	Y	N	Y	358	150	N	48

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
1	Johnson Mountain Twp	E	PSTR-40-06	Cold Stream	25	PER	AA	Y	N	Y	391	150	N	91
1	Bradstreet Twp	Е	PSTR-25-01	Horse Brook	30	PER	A	N	N	N/A	119	150	Y	58
1	Johnson Mountain Twp	E	PSTR-42-03 (TOB)	Trib. to Tomhegan Stream	40	PER	A	Y	N	N/A	121	150	N	95
2	Bald Mountain Twp T2 R3	D	ISTR-60-08	Trib. to Joes Hole	2	INT	N/A	Y	N	N/A	212	75	N	133
2	Moscow	D	ISTR-71-101	Trib. to Austin Stream	1	INT	N/A	Y	N	N/A	120	75	N	158
2	Moscow	D	ISTR-72-101	Trib. to Chase Stream	3	INT	N/A	Y	N	N/A	228	75	N	159, 160
2	Moscow	D	ISTR-72-102	Trib. to Chase Stream	3	INT	N/A	Y	N	N/A	405	75	N	159
2	Moscow	D	ISTR-72-106	Trib. to	2	INT	N/A	Y	N	N/A	209	75	N	160
2	Moscow	D	ISTR-73-02	Mink Brook	1.5	INT	A	Y	N	Y	416	75	N	161
2	Moscow	D	ISTR-73-03	Mink Brook	2	INT	A	Y	N	Y	574	75	N	
2	Moscow	D	ISTR-73-05	Trib. to Mink Brook	2	INT	A	Y	N	Y	15	75	Y	161, 162
2	Moscow	D	ISTR-73-06	Trib. to Mink Brook	3	INT	N/A	Y	N	N/A	20	75	Y	162
2	Moscow	D	ISTR-73-07	Mink Brook	3	INT	A	Y	N	Y	341	75	N	
2	Moscow	D	ISTR-73-08	Trib. to Austin Stream	2	INT	N/A	Y	N	N/A	461	75	N	163
2	Bald Mountain Twp T2 R3	D	POND-59-05	Joes Hole	100	Open Water	N/A	Y	N	N/A	118	75	N	131, 132
2	Bald Mountain Twp T2 R3	D	POND-60-01	Joes Hole	180	Open Water	A	Y	N	Y	109	75	N	133, 134
2	The Forks Plt	D	ISTR-54-01	Trib. to Moxie Pond	9	PER	A	Y	N	Y	397	75	N	120

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
2	Moscow	D	PSTR-71- 102	Trib. to Austin Stream	4	PER	N/A	Y	N	N/A	378	75	N	157
2	Moscow	D	PSTR-72- 103	Chase Stream	30	PER	A	Y	N	Y	1	75	Y	159, 160
2	Moscow	D	PSTR-72- 104	Trib. to Chase Stream	3.5	PER	Α	Y	N	Y	40	75	N	159, 160
2	Moscow	D	PSTR-72- 105	Trib. to Chase Stream	2	PER	Α	Y	N	Y	124	75	N	159, 160
2	Moscow	D	ISTR-73-01	Mink Brook	2	PER	A	Y	N	Y	139	75	N	
2	Moscow	D	ISTR-73-04	Trib. to Mink Brook	2	PER	A	Y	N	Y	21	75	N	
2	Moscow	D	PSTR-74-01	Trib. to Kennebec River	2	PER	В	Y	N	Y	172	75	N	164, 165
2	Bald Mountain Twp T2 R3	D	ISTR-61-05	Trib. to Wild Brook	1	INT	N/A	Y	N	N/A	295	75	N	136
2	The Forks Plt	D	ISTR-55-03	Trib. to Moxie Pond	1.5	INT	N/A	Y	N	N/A	297	75	N	123
2	Moscow	D	ESTR-66-12	Trib. to Heald Stream	2	INT	N/A	Y	N	N/A	520	75	N	148, 149
2	The Forks Plt	D	ISTR-53-01	Trib. to Moxie Pond	2	INT	N/A	Y	N	N/A	59	75	N	119
2	The Forks Plt	D	ISTR-55-02	Trib. to Moxie Pond	2	INT	N/A	Y	N	N/A	274	75	N	123
2	The Forks Plt	D	ISTR-56-03	Trib. to Moxie Pond	2	INT	N/A	Y	N	N/A	442	75	N	125
2	Bald Mountain Twp T2 R3	D	ISTR-63-07	Trib. to Wild Brook	2	INT	N/A	Y	N	N/A	467	75	N	141
2	Bald Mountain Twp T2 R3	D	PSTR-60-02	Trib. to Baker Stream	2	PER	N/A	Y	N	N/A	124	75	Y	135
2	Bald Mountain Twp T2 R3	D	ISTR-60-05	Trib. to Joes Hole	2.5	INT	N/A	Y	N	N/A	119	75	N	134

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
2	Bald Mountain Twp T2 R3	D	ISTR-63-05	Trib. to Wild Brook	2.5	INT	N/A	Y	N	N/A	446	75	N	140
2	Bald Mountain Twp T2 R3	D	ISTR-64-03	Trib. to Wild Brook	2.5	INT	N/A	Y	N	N/A	368	75	N	142, 143
2	Moscow	D	ISTR-65-04	Trib. to Little Heald Brook	2.5	INT	A	Y	N	Y	217	75	N	146
2	Bald Mountain Twp T2 R3	D	PSTR-60-07	Trib. to Joes Hole	2.5	PER	Α	Y	N	Y	314	75	N	133
2	Moscow	D	PSTR-65-03	Little Heald Stream	2.5	PER	A	Y	N	Y	136	75	N	146
2	The Forks Plt	D	ISTR-54-02	Trib. to Moxie Pond	3	INT	A	Y	N	Y	322	75	N	120
2	Bald Mountain Twp T2 R3	D	ISTR-62-01	Trib. to Wild Brook	3	INT	N/A	Y	N	N/A	267	75	N	139
2	Bald Mountain Twp T2 R3	D	ISTR-62-02	Trib. to Wild Brook	3	INT	N/A	Y	N	N/A	342	75	N	139
2	Bald Mountain Twp T2 R3	D	ISTR-62-03	Trib. to Wild Brook	3	INT	N/A	Y	N	N/A	330	75	N	140
2	Bald Mountain Twp T2 R3	D	ISTR-63-08	Trib. to Wild Brook	3	INT	N/A	Y	N	N/A	438	75	N	141
2	Bald Mountain Twp T2 R3	D	ISTR-63-09	Trib. to Wild Brook	3	INT	N/A	Y	N	N/A	322	75	N	141
2	Bald Mountain Twp T2 R3	D	ISTR-64-05	Trib. to Wild Brook	3	INT	N/A	Y	N	N/A	288	75	N	142
2	Moscow	D	ISTR-66-05	Heald Stream	3	INT	A	Y	N	Y	454	75	N	147
2	Moscow	D	PSTR-65-01	Trib. to Little Heald Brook	3	PER	N/A	Y	N	Y	119	75	Y	145
2	Bald Mountain Twp T2 R3	D	PSTR-61-08	Trib. to Baker Stream	3.5	PER	N/A	Y	N	N/A	191	75	N	136

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
2	Moscow	D	ISTR-66-07	Trib. to Heald Stream	4	INT	N/A	Y	N	N/A	238	75	Y	147
2	Bald Mountain Twp T2 R3	D	PSTR-60-01	Trib. to Baker Stream	4	PER	N/A	Y	N	N/A	161	75	N	135
2	Bald Mountain Twp T2 R3	D	PSTR-63-06	Trib. to Wild Brook	4	PER	N/A	Y	N	Y	333	75	N	141
2	Bald Mountain Twp T2 R3	D	PSTR-63-11	Trib. to Wild Brook	4	PER	N/A	Y	N	Y	283	75	N	142
2	Bald Mountain Twp T2 R3	D	PSTR-64-06	Trib. to Wild Brook	4	PER	N/A	Y	N	Y	118	75	Y	143
2	The Forks Plt	D	ISTR-57-02	Trib. to Mosquito Stream	5	INT	A	Y	N	Y	532	75	N	127
2	Moscow	D	ISTR-66-08	Trib. to Heald Stream	5	INT	N/A	Y	N	N/A	416	75	N	148
2	Moscow	D	ISTR-66-09	Trib. to Heald Stream	5	INT	N/A	Y	N	N/A	3	75	Y	148
2	Moscow	D	ISTR-66-10	Trib. to Heald Stream	5	INT	N/A	Y	N	N/A	5	75	Y	148, 149
2	Bald Mountain Twp T2 R3	D	PSTR-60-06	Trib. to Joes Hole	5	PER	Α	Y	N	Y	316	75	N	133
2	Bald Mountain Twp T2 R3	D	PSTR-61-01	Wild Brook	5	PER	A	Y	N	Y	511	75	Y	137
2	Bald Mountain Twp T2 R3	D	PSTR-64-02	Trib. to Wild Brook	5	PER	N/A	Y	N	Y	413	75	N	142, 143
2	The Forks Plt	D	ISTR-55-01	Trib. to Moxie Pond	6	INT	N/A	Y	N	N/A	212	75	N	123
2	Bald Mountain Twp T2 R3	D	ISTR-59-02	Trib. to Little Sandy Stream	6	INT	A	Y	N	Y	16	75	Y	131

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)		Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
2	Moscow	D	ISTR-66-06	Trib. to Heald Stream	6	INT	N/A	Y	N	N/A	258	75	Y	147
2	Moscow	D	ISTR-67-01	Trib. to Austin Stream	6	INT	N/A	Y	N	N/A	120	75	Y	149
2	Bald Mountain Twp T2 R3	D	PSTR-63-10	Trib. to Wild Brook	6	PER	N/A	Y	N	Y	215	75	N	142
2	Moscow	D	ISTR-69-01	Trib. to Austin Stream	7	INT	N/A	Y	N	N/A	155	75	N	156, 157
2	Bald Mountain Twp T2 R3	D	PSTR-63-03	Wild Brook	7	PER	A	Y	N	Y	380	75	N	140
2	Bald Mountain Twp T2 R3	D	PSTR-63-04	Wild Brook	7	PER	Α	Y	N	Y	284	75	N	140
2	Moscow	D	ISTR-72-107	Trib. to Chase Stream	8	INT	A	Y	N	Y	66	75	Y	160
2	The Forks Plt	D	PSTR-57-01	Mosquito Stream	10	PER	A	Y	N	Y	470	75	N	127
2	Bald Mountain Twp T2 R3	D	PSTR-59-01	Little Sandy Stream	15	PER	A	Y	N	Y	107	75	Y	131
2	Moscow	D	PSTR-66-02	Heald Stream	15	PER	A	Y	N	Y	459	75	N	146, 147
2	Moscow	D	PSTR-65-02	Little Heald Brook	25	PER	A	Y	N	Y	82	75	N	146
3	Industry	D	ISTR-101-01	Trib. to Josiah Brook	5	INT	N/A	Y	Y	N/A	272	75	N	223
3	Industry	D	ISTR-101-02	Trib. to Josiah Brook	2	INT	N/A	Y	Y	N/A	219	75	N	223
3	Industry	D	ISTR-102-01	Trib. to Josiah Brook	8	INT	В	Y	Y	N/A	294	75	N	225
3	Industry	D	ISTR-103-01	Trib. to Goodrich Brook	5	INT	N/A	Y	Y	N/A	349	75	N	229

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)		Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Industry	D	ISTR-103-02	Trib. to Goodrich Brook	1.5	INT	N/A	Y	Y	N/A	302	75	N	229
3	Industry	D	ISTR-103-03	Trib. to Goodrich Brook	3	INT	N/A	Y	Y	N/A	72	75	N	228, 229
3	Industry	D	ISTR-103-04	Trib. to Goodrich Brook	3	INT	N/A	Y	Y	N/A	102	75	N	228, 229
3	Industry	D	ISTR-103-05	Trib. to Goodrich Brook	3	INT	N/A	Y	Y	N/A	195	75	N	228
3	Industry	D	ISTR-103-06	Trib. to Goodrich Brook	1.5	INT	N/A	Y	Y	N/A	375	75	N	228
3	Industry	D	ISTR-103-07	Trib. to Goodrich Brook	5	INT	В	Y	Y	N/A	330	75	N	228
3	Industry	D	ISTR-103-08	Trib. to Goodrich Brook	4	INT	N/A	Y	Y	N/A	209	75	N	227, 228
3	Industry	D	ISTR-103-09	Trib. to Goodrich Brook	5	INT	N/A	Y	Y	N/A	274	75	N	227, 228
3	Farmington	D	ISTR-107-01	Trib. to Beales Brook	1.5	INT	В	Y	Y	N/A	299	75	N	238
3	Farmington	D	ISTR-108-01	Trib. to Cascade Brook	3	INT	N/A	Y	Y	N/A	200	75	N	240
3	Farmington	D	ISTR-108-02	Trib. to Cascade Brook	2.5	INT	В	Y	Y	N/A	246	75	N	240
3	Farmington	D	ISTR-108-03	Trib. to Cascade Brook	1.5	INT	В	Y	Y	N/A	275	75	N	240
3	Farmington	D	ISTR-108-04	Trib. to Cascade Brook	1	INT	В	Y	Y	N/A	196	75	N	239
3	Farmington	D	ISTR-111-01	Trib. to Wilson Stream	2	INT	N/A	Y	Y	N/A	162	75	N	246

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Jay	D	ISTR-114-02	Trib. to Wilson Stream	3	INT	N/A	Y	Y	N/A	107	75	N	253
3	Chesterville	D	ISTR-114-03	Trib. to Wilson Stream	6	INT	N/A	Y	Y	N/A	349	75	Y	253
3	Jay	D	ISTR-116-02	Trib. To Sugar Brook	8	INT	N/A	Y	Y	N/A	140	75	Y	256
3	Jay	D	ISTR-117-01	Trib. to Fuller Brook	2	INT	N/A	Y	Y	N/A	86	75	Y	259
3	Livermore Falls	В	ISTR-127-01	Trib. to Androscoggi n River	10	INT	N/A	Y	N	N/A	411	75	Y	280, 281
3	Leeds	В	ISTR-132-02	Trib. To Dead River	3	INT	В	Y	N	N/A	277	75	N	292
3	Leeds	В	ISTR-135-04	Trib. to Allen Stream	4	INT	В	Y	N	N/A	201	75	N	299
3	Concord Twp	D	ISTR-75-03	Trib. to Kennebec River	4	INT	N/A	Y	N	N/A	287	75	Y	167
3	Concord Twp	D	ISTR-76-02	Trib. to Kennebec River	1	INT	N/A	Y	N	N/A	251	75	N	
3	Concord Twp	D	ISTR-76-03	Trib. to Kennebec River	20	INT	В	Y	N	N/A	536	75	N	
3	Concord Twp	D	ISTR-76-04	Trib. to Kennebec River	2	INT	В	Y	N	N/A	366	75	N	
3	Concord Twp	D	ISTR-76-05	Trib. to Kennebec River	15	INT	N/A	Y	N	N/A	247	75	N	
3	Concord Twp	D	ISTR-76-06	Trib. to Kennebec River	20	INT	N/A	Y	N	N/A	238	75	N	
3	Concord Twp	D	ISTR-77-03	Trib. to Kennebec River	2.5	INT	N/A	Y	N	N/A	228	75	N	171
3	Concord Twp	D	ISTR-78-01	Trib. To Mill Stream	3	INT	N/A	Y	N	N/A	204	75	Y	173

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Concord Twp	D	ISTR-78-02	Trib. To Mill Stream	3	INT	N/A	Y	N	N/A	254	75	N	173
3	Concord Twp	D	ISTR-80-01	Trib. to Kennebec River	2	INT	N/A	Y	N	N/A	480	75	N	177
3	Concord Twp	D	ISTR-80-02	Trib. to Kennebec River	3	INT	N/A	Y	N	N/A	267	75	N	176
3	Concord Twp	D	ISTR-80-03	Trib. to Kennebec River	2	INT	N/A	Y	N	N/A	93	75	N	176
3	Concord Twp	D	ISTR-80-04	Trib. to Kennebec River	1.5	INT	N/A	Y	N	N/A	468	75	N	177
3	Concord Twp	D	ISTR-80-05	Trib. to Kennebec River	3	INT	N/A	Y	N	N/A	247	75	N	177
3	Concord Twp	D	ISTR-81-01	Trib. to Kennebec River	4	INT	N/A	Y	N	N/A	256	75	N	178, 179
3	Concord Twp	D	ISTR-81-02	Trib. to Kennebec River	4	INT	N/A	Y	N	N/A	243	75	N	178, 179
3	Embden	D	ISTR-82-01	Trib. to Alder Brook	5	INT	N/A	Y	N	N/A	330	75	N	182, 183
3	Embden	D	ISTR-83-02	Trib. to Alder Brook	4	INT	N/A	Y	N	N/A	429	75	N	184
3	Embden	D	ISTR-83-05	Trib. to Alder Brook	3	INT	В	Y	N	Y	327	75	N	184
3	Embden	D	ISTR-83-06	Trib. to Alder Brook	2	INT	В	Y	N	Y	281	75	Y	183, 184
3	Embden	D	ISTR-84-01	Trib. to Alder Brook	4	INT	N/A	Y	N	N/A	312	75	N	185
3	Embden	D	ISTR-85-01	Jackin Brook	2	INT	В	Y	N	Y	232	75	N	187
3	Starks	D	ISTR-96-07	Trib. to Pelton Brook	3	INT	N/A	Y	Y	N/A	374	75	N	213
3	Starks	D	ISTR-96-08	Trib. to Pelton Brook	4	INT	N/A	Y	Y	N/A	245	75	N	213

Segment	Town	MDIFW Region	Feature ID		Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Starks	D	ISTR-96-09	Trib. to Pelton Brook	2	INT	N/A	Y	Y	N/A	251	75	N	213
3	Starks	D	ISTR-96-10	Trib. to Pelton Brook	5	INT	N/A	Y	Y	N/A	319	75	N	213
3	Starks	D	ISTR-96-11	Trib. to Pelton Brook	2	INT	N/A	Y	Y	N/A	335	75	N	213
3	Starks	D	ISTR-96-12	Trib. to Pelton Brook	2	INT	N/A	Y	Y	N/A	260	75	N	213
3	Starks	D	ISTR-97-02	Trib. to Pelton Brook	100	INT	N/A	Y	Y	N/A	460	75	N	214, 215
3	Starks	D	ISTR-97-03	Trib. to Pelton Brook	2.5	INT	N/A	Y	Y	N/A	494	75	N	214, 215
3	Starks	D	ISTR-97-04	Trib. to Pelton Brook	3	INT	N/A	Y	Y	N/A	341	75	N	214, 215
3	Starks	D	ISTR-97-06	Trib. to Cold Pond/Hilton Brook	4	INT	N/A	Y	Y	N/A	533	75	N	216
3	Starks	D	ISTR-97-07	Trib. to Cold Pond/Hilton Brook	2	INT	N/A	Y	Y	N/A	562	75	N	216
3	Starks	D	ISTR-98-01	Trib. to Lemon Stream	2	INT	N/A	Y	Y	N/A	110	75	N	217, 218
3	Starks	D	ISTR-99-01	Trib. to Lemon Stream	2	INT	В	Y	Y	Y	193	75	N	219
3	Lewiston	A	ISTR- PERRON-1	Trib. to Stetson Brook	0	INT	N/A	Y	N	N/A	353	75	N	320
3	Farmington	D	PSTR-112- 01	Trib. to Wilson Stream	2	PER	В	Y	Y	Y	290	75	N	249

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Chesterville	D	PSTR-114- 01	Trib. to Wilson Stream	8	PER	N/A	Y	Y	Y	352	75	N	253
3	Chesterville	D	PSTR-114- 04	Trib. to Wilson Stream	1	PER	N/A	Y	Y	Y	354	75	N	252
3	Greene	A	PSTR-141- 01	Trib. to Daggett Bog	3	PER	В	Y	N	N/A	92	75	N	312
3	Moscow/ Concord Twp	D	ISTR-75-01	Kennebec River	3	PER	A	Y	N	Y	218	75	N	
3	Concord Twp	D	ISTR-75-02	Trib. to Kennebec River	2	PER	В	Y	N	Y	206	75	N	
3	Concord Twp	D	ISTR-76-01	Trib. to Kennebec River	0	PER	В	Y	N	Y	192	75	N	
3	Concord Twp	D	PSTR-77-01	Trib. to Kennebec River	30	PER	N/A	Y	N	Y	209	75	N	171
3	Concord Twp	D	PSTR-77-02	Trib. to Kennebec River	2	PER	В	Y	N	Y	293	75	N	171
3	Embden	D	PSTR-83-01	Trib. to Alder Brook	6	PER	N/A	Y	N	Y	364	75	Y	184
3	Embden	D	PSTR-83-03	Alder Brook	35	PER	В	Y	N	Y	81	75	Y	183
3	Embden	D	PSTR-83-04		8	PER	В	Y	N	Y	615	75	N	184
3	Embden	D	PSTR-83-07	Trib. to Alder Brook	2.5	PER	В	Y	N	Y	93	75	N	183
3	Embden	D	PSTR-83-08	Trib. to Alder Brook	6	PER	N/A	Y	N	Y	107	75	N	182, 183
3	Anson	D	PSTR-89-01	Jackin Brook	4.5	PER	N/A	Y	N	Y	348	75	N	196
3	Anson	D	PSTR-90-02	Carrabassett River	400	PER	В	Y	N	Y	193	75	N	199, 200
3	Anson	D	PSTR-91-01	Gilbert Brook	190	PER	В	Y	Y	N/A	242	75	N	201
3	Starks	D	PSTR-96-01	Trib. to Pelton Brook	20	PER	В	Y	Y	Y	340	75	Y	212
3	Starks	D	PSTR-96-05	Pelton Brook	30	PER	В	Y	Y	Y	300	75	N	213

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)		Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Starks	D	PSTR-97-01	Trib. to Pelton Brook	85	PER	В	Y	Y	Y	125	75	Y	214
3	Starks	D	PSTR-97-05	Trib. to Cold Pond/Hilton Brook	20	PER	N/A	Y	Y	N/A	424	75	N	216
3	Starks	D	ISTR-100-01	Trib. To Meadow Brook	2	PER	В	Y	Y	N/A	499	75	N	220
3	Starks	D	ISTR-100-02	Brook	2	INT	N/A	Y	Y	N/A	454	75	N	221
3	Starks	D	ISTR-100-03	Trib. To Meadow Brook	1	INT	В	Y	Y	N/A	310	75	N	221
3	Industry	D	PSTR-101- 03	Trib. to Josiah Brook	6	PER	N/A	Y	Y	N/A	312	75	N	223
3	Industry	D	ISTR-101-04	Trib. to Josiah Brook	4	PER	N/A	Y	Y	N/A	334	75	N	223
3	Industry	D	PSTR-101- 05	Josiah Brook	3	PER	В	Y	Y	N/A	208	75	Y	224
3	Industry	D	ISTR-101-06	Trib. to Josiah Brook	3	INT	N/A	Y	Y	N/A	469	75	Y	224
3	Industry	D	ISTR-102-01	Trib. to Josiah Brook	8	PER	В	Y	Y	N/A	216	75	N	225
3	Industry	D	ISTR-102-02	Trib. to Josiah Brook	5	INT	В	Y	Y	N/A	270	75	Y	225
3	Industry	D	ISTR-102-03	Brook	3	UNK	N/A	Y	Y	N/A	367	75	N	227
3	Industry	D	ISTR-103-10	Trib. to Goodrich Brook	4	UNK	N/A	Y	Y	N/A	321	75	N	227
3	Industry	D	PSTR-103- 11	Trib. to Goodrich Brook	7	UNK	В	Y	Y	N/A	349	75	N	228

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)		Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Industry	D	PSTR-103- 12	Goodrich Brook	15	PER	В	Y	Y	N/A	245	75	N	229
3	Industry	D	PSTR-103- 13	Trib. to Goodrich Brook	7	UNK	В	Y	Y	N/A	104	75	N	229
3	Industry	D	PSTR-103- 14	Trib. to Goodrich Brook	8	UNK	В	Y	Y	N/A	131	75	N	229
3	Industry	D	ISTR-103-15	Trib. to Goodrich Brook	3	UNK	N/A	Y	Y	N/A	38	75	N	227
3	Industry	D	ISTR-103-16	Trib. to Goodrich Brook	5	UNK	N/A	Y	Y	N/A	362	75	N	227
3	Industry	D	ISTR-104-02	Trib. to Goodrich Brook	4	UNK	В	Y	Y	N/A	146	75	N	230
3	Industry	D	PSTR-104- 04	Trib. to Goodrich Brook	6	UNK	В	Y	Y	N/A	135	75	Y	230
3	New Sharon	D	PSTR-105- 01	Muddy Brook	40	PER	В	Y	Y	N/A	521	75	N	232
3	Farmington	D	ISTR-107-01	Trib. to Beales Brook	1.5	UNK	N/A	Y	Y	N/A	280	75	N	238
3	Farmington	D	PSTR-107- 02	Trib. to Beales Brook	3.5	UNK	В	Y	Y	N/A	116	75	Y	237
3	Farmington	D	ISTR-107-03	Trib. to Beales Brook	1	UNK	N/A	Y	Y	N/A	275	75	N	236, 237
3	Farmington	D	PSTR-107- 04	Beales Brook	5	PER	В	Y	Y	N/A	335	75	N	236
3	Farmington	D	ISTR-108-05	Trib. to Cascade Brook	1.5	UNK	N/A	Y	Y	N/A	29	75	N	239
3	Farmington	D	ISTR-108-06	Trib. to Cascade Brook	1.5	UNK	В	Y	Y	N/A	317	75	N	239
3	Farmington	D	ISTR-108-07	Trib. to Cascade Brook	4	UNK	В	Y	Y	N/A	91	75	N	239, 240

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Farmington	D	ISTR-108-08	Trib. to Cascade Brook	1.5	UNK	В	Y	Y	N/A	62	75	N	239
3	Farmington	D	ISTR-108-09	Trib. to Cascade Brook	1	UNK	В	Y	Y	N/A	404	75	N	239
3	Farmington	D	ISTR-109-01	Trib. to Cascade Brook	3	UNK	В	Y	Y	N/A	162	75	N	241
3	Farmington	D	PSTR-109- 02	Cascade Brook	8	PER	В	Y	Y	N/A	113	75	N	242
3	Farmington	D	ISTR-109-03	Trib. to Cascade Brook	3	UNK	N/A	Y	Y	N/A	386	75	Y	241
3	Farmington	D	PSTR-110-	Sandy River	70	PER	В	Y	Y	N/A	136	75	N	242, 243
3	Farmington	D	ISTR-111-02	Trib. to Wilson Stream	3.5	UNK	N/A	Y	Y	Y	240	75	N	246, 247
3	Farmington	D	ISTR-111-03	Trib. to Wilson Stream	4	UNK	N/A	Y	Y	Y	51	75	N	246
3	Farmington	D	PSTR-112- 02	Trib. to Wilson Stream	6	UNK	N/A	Y	Y	Y	77	75	N	247, 248
3	Farmington	D	PSTR-112- 03	Wilson Stream	40	UNK	С	Y	Y	Y	61	75	N	247
3	Jay	D	PSTR-114- 01	Trib. to Wilson Stream	8	UNK	В	Y	Y	Y	169	75	Y	253
3	Chesterville	D	PSTR-114- 05	Trib. to Wilson Stream	25	UNK	В	Y	Y	Y	243	75	Y	252
3	Chesterville	D	ISTR-114-06	Trib. to Wilson Stream	5	UNK	В	Y	Y	Y	391	75	N	252
3	Chesterville	D	PSTR-114- 07	Trib. to Wilson Stream	5	PER	В	Y	Y	Y	85	75	Y	252, 253
3	Jay	D	ISTR-116-03	Trib. to Sugar Brook	2	UNK	N/A	Y	Y	N/A	35	75	Y	256

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Jay	D	PSTR-116- 04	Sugar Brook	3.5	PER	В	Y	Y	N/A	302	75	Y	257
3	Jay	D	PSTR-117- 02	Trib. To Fuller Brook	5	UNK	N/A	Y	Y	N/A	98	75	N	258, 259
3	Jay	D	ISTR-117-03	Trib. To Fuller Brook	4	UNK	N/A	Y	Y	N/A	53	75	N	259
3	Jay	D	PSTR-117-	Fuller Brook	3	PER	В	Y	Y	N/A	37	75	N	260
3	Jay	D	PSTR-118-	Fuller Brook	15	PER	В	Y	Y	N/A	492	75	N	262
3	Jay	D	PSTR-119- 01	James Brook	15	PER	В	Y	Y	N/A	130	75	Y	263
3	Embden	D	ISTR-85-01	Trib. to Jackin Brook	2	UNK	В	Y	N	Y	175	75	N	187
3	Anson	D	ISTR-89-03	Trib. to Fahi Brook	3.5	INT	В	Y	N	N/A	328	75	N	196
3	Anson	D	PSTR-90-01	Trib. to Carrabassett River	5.5	UNK	В	Y	N	N/A	373	75	N	198
3	Anson	D	ISTR-90-04	Trib. to Carrabassett River	1.5	UNK	N/A	Y	Y	N/A	165	75	N	200
3	Anson	D	ISTR-92-01	Trib. to Carrabassett River	2	INT	N/A	Y	Y	N/A	332	75	N	204
3	Anson	D	ISTR-92-02	Trib. to Carrabassett River	1.5	INT	N/A	Y	Y	N/A	307	75	N	204
3	Anson	D	PSTR-92-03	Gilman Brook	20	UNK	В	Y	Y	N/A	305	75	N	205
3	Anson	D	ISTR-92-05	Trib. to Gilman Brook	4.5	UNK	N/A	Y	Y	N/A	365	75	N	205
3	Anson	D	PSTR-93-01	Getchell Brook	15	INT	В	Y	Y	N/A	59	75	N	207, 208
3	Anson	D	ISTR-93-02	Trib. to Getchell Brook	4	INT	В	Y	Y	N/A	162	75	N	208
3	Anson	D	PSTR-93-03	Trib. to Getchell Brook	2	UNK	В	Y	Y	N/A	413	75	N	208

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)		Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Anson	D	ISTR-95-01	Trib. to Kennebec River	2.5	INT	В	Y	Y	N/A	123	75	N	209, 210
3	Anson	D	ISTR-95-02	Trib. to Kennebec River	6	INT	N/A	Y	Y	N/A	416	75	N	209, 210
3	Anson	D	ISTR-95-03	Trib. to Kennebec River	1	UNK	N/A	Y	Y	N/A	504	75	N	210
3	Anson	D	ISTR-95-04	Trib. to Kennebec River	1	UNK	В	Y	Y	N/A	412	75	N	210
3	Starks	D	PSTR-95-05	Trib. to Kennebec River	2	UNK	В	Y	Y	N/A	119	75	N	210
3	Starks	D	PSTR-99-02	Trib. to Lemon Stream	6	UNK	В	Y	Y	Y	43	75	Y	219
3	Starks	D	ISTR-99-03	Trib. to Lemon Stream	1	UNK	В	Y	Y	Y	128	75	Y	219
3	Starks	D	ISTR-99-04	Trib. to Lemon Stream	3	UNK	В	Y	Y	Y	125	75	N	219
3	Starks	D	PSTR-99-05	Lemon Stream	55	PER	В	Y	Y	Y	116	75	N	219, 220
3	Starks	D	PSTR-99-06	Trib. to Lemon Stream	6	UNK	В	Y	Y	Y	406	75	N	219
3	Starks	D	ISTR-99-07	Lemon Stream	1	UNK	N/A	Y	Y	Y	206	75	N	220
3	Anson	D	WB-94-01	Trib. to Getchell Brook	85	Open Water	В	Y	Y	N/A	299	75	N	208
3	Anson	D	ISTR-88-01	Trib. to Fahi Brook	1	INT	В	Y	N	N/A	444	75	N	196
3	Industry	D	ISTR-104-01	Trib. to Goodrich Brook	2	INT	N/A	Y	Y	N/A	426	75	N	229
3	Livermore Falls	В	ISTR-123-03	Trib. to Clay Brook	4	INT	В	Y	N	N/A	150	75	N	272

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Livermore Falls	В	ISTR-128-02	n River	2	INT	С	Y	N	N/A	196	75	N	283
3	Livermore Falls	В	ISTR-128-03	Trib. to Androscoggi n River	2	INT	C	Y	N	N/A	157	75	N	283
3	Leeds	В	ISTR-135-02	Trib. to Allen Stream	2	INT	В	Y	N	N/A	54	75	N	299
3	Leeds	В	ISTR-135-03	Trib. to Allen Stream	2	INT	В	Y	N	N/A	153	75	N	299, 300
3	Greene	A	ISTR-139-03	Trib. to Allen Pond	2	INT	В	Y	N	N/A	366	75	N	309
3	Greene	A	ISTR-140-02	Trib. to Allen Pond	1.5	INT	В	Y	N	N/A	228	75	N	309
3	Greene	A	ISTR-140-07	Trib. to Allen Pond	2	INT	В	Y	N	N/A	153	75	N	310, 311
3	Lewiston	A	ISTR-145-02	Brook	2	INT	С	Y	N	Y	157	75	N	322
3	Lewiston	A	ISTR-145-03	Trib. to Stetson Brook	8	INT	С	Y	N	N/A	170	75	N	321
3	Lewiston	A	ISTR-146-04	Trib. to Stetson Brook	2	INT	С	Y	N	Y	482	75	N	323
3	Starks	D	ISTR-96-03	Trib. to Pelton Brook	2	INT	N/A	Y	Y	N/A	186	75	N	212
3	Livermore Falls	В	PSTR-121- 03	Trib. to Clay Brook	2	PER	В	Y	N	N/A	318	0	N	269
3	Livermore Falls	В	PSTR-122- 04	Trib. to Clay Brook	2	PER	В	Y	N	N/A	271	75	N	269, 270
3	Livermore Falls	В	PSTR-122- 05	Trib. to Clay Brook	6	PER	В	Y	N	N/A	295	0	N	269
3	Livermore Falls	В	PSTR-122- 06	Trib. to Clay Brook	2	PER	В	Y	N	N/A	250	0	N	269
3	Livermore Falls	В	PSTR-125- 01	Trib. to Androscoggi n River	2	PER	С	Y	N	N/A	303	75	N	276

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Leeds	В	PSTR-135- 01	Trib. to Allen Stream	2	PER	В	Y	N	N/A	333	75	N	299
3	Greene	A	PSTR-144- 02	Trib. to Daggett Bog	2	PER	В	Y	N	N/A	76	75	N	319
3	Livermore Falls	В	ISTR-125-06	Trib. to Androscoggi n River	2	UNK	С	Y	N	N/A	244	75	N	277
3	Livermore Falls	В	ISTR-126-06	Trib. to Androscoggi n River	2	UNK	С	Y	N	N/A	422	75	N	279
3	Leeds	В	ISTR-134-01	Trib. to Allen Stream	2	UNK	В	Y	N	N/A	131	75	N	298
3	Leeds	В	ISTR-134-02	Trib. to Allen Stream	2.5	INT	В	Y	N	N/A	116	75	N	297
3	Leeds	В	ISTR-134-03	Trib. to Allen Stream	2.5	INT	В	Y	N	N/A	51	75	N	297
3	Jay	D	ISTR-121-01	Trib. to Clay Brook	3	INT	В	Y	N	N/A	227	0	N	268
3	Livermore Falls	В	ISTR-123-02	Trib. to Clay Brook	3	INT	В	Y	N	N/A	146	75	N	272
3	Livermore Falls	В	ISTR-124-01	Trib. to	3	INT	С	Y	N	N/A	279	75	N	274
3	Livermore Falls	В	ISTR-124-02	Trib. to Androscoggi n River	3	INT	С	Y	N	N/A	459	75	N	274
3	Livermore Falls	В	ISTR-126-01	Trib. to Androscoggi n River	3	INT	С	Y	N	N/A	297	75	N	279
3	Livermore Falls	В	ISTR-127-03	Trib. to Hunton Brook	30	INT	В	Y	N	N/A	539	75	N	282
3	Leeds	В	ISTR-130-02	Trib. to Androscoggi n River	3	INT	С	Y	N	N/A	58	75	N	287

Segment	Town	MDIFW Region	Feature ID		Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Leeds	В	ISTR-130-03	Trib. to Androscoggi n River	3	INT	С	Y	N	N/A	330	75	Y	287, 288
3	Leeds	В	ISTR-131-02	Trib. To Dead River	3	INT	В	Y	N	N/A	142	75	N	291
3	Leeds	В	ISTR-132-01	Trib. To Dead River	3	INT	В	Y	N	N/A	190	75	N	292
3	Greene	A	ISTR-138-03	Trib. to Allen Stream	3	INT	В	Y	N	N/A	295	75	N	306
3	Greene	A	ISTR-140-04	Trib. to Allen Pond	3	INT	В	Y	N	N/A	215	75	N	309
3	Greene	A	ISTR-140-05	Trib. to Allen Pond	3	INT	В	Y	N	N/A	199	75	N	309
3	Starks	D	ISTR-96-04	Trib. to Pelton Brook	3	INT	N/A	Y	Y	N/A	524	75	N	212
3	Jay/Livermore Falls	D	PSTR-121- 02	Trib. to Clay Brook	3	PER	В	Y	N	N/A	138	0	N	268, 269
3	Jay	D	PSTR-121- 04	Trib. to Clay Brook	3	PER	В	Y	N	N/A	92	0	N	267, 268, 269
3	Livermore Falls	В	PSTR-128- 01	Trib. to Androscoggi n River	3	PER	С	Y	N	N/A	108	75	Y	282, 283
3	Leeds	В	PSTR-133- 01	Trib. to Allen Stream	3	PER	В	Y	N	N/A	113	75	Y	295
3	Starks	D	PSTR-96-02	Trib. to Pelton Brook	3	PER	В	Y	Y	Y	334	75	N	212
3	Livermore Falls	В	ISTR-123-01	Trib. to Clay Brook	4	INT	В	Y	N	N/A	110	75	N	272
3	Livermore Falls	В	PSTR-125- 02	Trib. to Androscoggi n River	2	INT	С	Y	N	N/A	295	75	Y	277
3	Livermore Falls	В	ISTR-125-05	n River	4	INT	С	Y	N	N/A	319	75	N	277
3	Leeds	В	ISTR-131-01	Trib. to Dead River	4	INT	В	Y	N	N/A	15	75	Y	289
3	Greene	A	ISTR-138-01	Trib. to Allen Pond	4	INT	В	Y	N	N/A	24	75	N	307

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Greene	A	ISTR-138-02	Trib. to Allen Pond	4	INT	В	Y	N	N/A	194	75	N	307
3	Greene	A	ISTR-140-03	Trib. to Allen Pond	6	INT	В	Y	N	N/A	174	75	Y	310
3	Greene	A	ISTR-141-02	Trib. to Daggett Bog	4	INT	В	Y	N	N/A	200	75	N	312
3	Livermore Falls	В	PSTR-126- 02	Trib. to Androscoggi n River	4	PER	С	Y	N	N/A	333	75	N	279
3	Livermore Falls	В	PSTR-126- 05	Trib. to Androscoggi n River	4	PER	С	Y	N	N/A	346	75	N	279
3	Livermore Falls	В	PSTR-127- 02	Trib. to Hunton Brook	30	PER	В	Y	N	N/A	426	75	N	281
3	Greene	A	PSTR-139- 01	Trib. to Allen Stream	4	PER	В	Y	N	N/A	351	75	Y	307
3	Greene	A	PSTR-139- 02	Trib. to Allen Stream	4	PER	В	Y	N	N/A	373	75	N	307
3	Greene	A	PSTR-140- 06	Trib to Allen Pond	4	PER	В	Y	N	N/A	354	75	N	310
3	Greene	A	PSTR-140- 08	Trib. to Allen Pond	4	PER	В	Y	N	N/A	139	75	Y	309
3	Greene	A	PSTR-140- 09	Trib. to Allen Pond	4	PER	В	Y	N	N/A	142	75	N	309
3	Lewiston	A	PSTR-145- 01	Trib. to Stetson Brook	4	PER	С	Y	N	Y	8	75	Y	321, 322
3	Anson	D	PSTR-89-02	Trib. to Fahi Brook	5	PER	В	Y	N	N/A	503	75	N	196
3	Livermore Falls	В	PSTR-122- 02	Trib. to Clay Brook	5	PER	В	Y	N	N/A	208	75	N	270
3	Livermore Falls	В	PSTR-122- 03	Clay Brook/Redw ater Brook	5	PER	В	Y	N	N/A	60	75	N	270, 271
3	Livermore Falls	В	PSTR-126- 03	Trib. to Androscoggi n River	5	PER	С	Y	N	N/A	141	75	N	280

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
3	Lewiston	A	PSTR-146- 03	Trib. to Androscoggi n River	2	PER	С	Y	N	N/A	419	75	N	323
3	Lewiston	A	PSTR-146- 05	Trib. to Androscoggi n River	1	PER	С	Y	N	N/A	35	75	N	323
3	Starks	D	PSTR-96-06	Pelton Brook	5	PER	В	Y	Y	Y	336	75	N	213
3	Leeds	В	PSTR-136- 01	Trib. to Androscoggi n River	6	PER	В	Y	N	N/A	194	75	Y	302
3	Greene	A	PSTR-140- 01	Allen Stream	6	PER	В	Y	N	N/A	323	75	N	310
3	Greene	A	PSTR-143- 01	Stetson Brook	6	PER	В	Y	N	N/A	26	75	Y	318
3	Greene	A	PSTR-144- 01	Trib. to Stetson Brook	6	PER	В	Y	N	Y	32	75	Y	318
3	Livermore Falls	В	ISTR-126-04	n River	3	INT	С	Y	N	N/A	132	75	Y	280
3	Leeds	В	ISTR-130-01	Trib. to Dead River	8	INT	В	Y	N	N/A	296	75	N	289
3	Leeds	В	PSTR-130-	Dead River	60	INT	В	Y	N	N/A	91	75	N	289
3	Livermore Falls	В	PSTR-122- 01	Trib. to Clay Brook	5	PER	В	Y	N	N/A	466	0	N	269, 270
3	Livermore Falls	В	PSTR-122- 07	Trib. to Clay Brook	5	PER	В	Y	N	N/A	311	0	N	270
3	Greene	A	PSTR-143- 02	Stetson Brook	10	PER	В	Y	N	N/A	210	75	N	318
3	Livermore Falls	В	PSTR-125- 03	Trib. to Androscoggi n River	2	PER	С	Y	N	N/A	42	75	N	277, 278
3	Livermore Falls	В	PSTR-125- 04	Trib. to Androscoggi n River	4	PER	С	Y	N	N/A	191	75	N	277, 278
3	Livermore Falls	В	PSTR-129- 01	Scott Brook	20	PER	В	Y	N	N/A	166	75	N	285, 286
3	Livermore Falls	В	PSTR-127- 04	Hunton Brook	4	PER	В	Y	N	N/A	106	75	N	281

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
4	Lewiston	A	ISTR-153-01	n River	3	UNK	С	Y	Y	N/A	120	0	N	340
4	Durham	A	ISTR-156-02	Trib. to Androscoggi n River	1	INT	С	Y	Y	N/A	103	0	N	346
4	Durham	A	ISTR-158-01	Trib. to Libby Brook	15	INT	В	N	N	N/A	143	0	N	351
4	Durham	A	ISTR-158-02	Trib. to Libby Brook	2	INT	В	N	N	N/A	134	0	N	351
4	Lewiston	A	ISTR-155-01	n River	2	INT	С	Y	Y	N/A	127	0	N	343
4	Durham	A	ISTR-157-01	Trib. to House Brook	1.5	INT	В	Y	Y	N/A	116	0	Y	348
4	Pownal	A	ISTR-161-04	Brook	6	INT	В	N	N	N/A	66	0	N	
4	Auburn	A	PSTR-156- 01	Trib. to Androscoggi n River	2	PER	С	Y	Y	N/A	211	0	N	345
4	Auburn	A	PSTR-156- 03	Trib. to Androscoggi n River	1	PER	С	Y	Y	N/A	91	0	N	346
4	Auburn	A	PSTR-156- 04	Trib. to Androscoggi n River	2	PER	С	Y	Y	N/A	165	0	Y	345
4	Auburn	A	PSTR-156- 05	Trib. to Androscoggi n River	2	PER	С	Y	Y	N/A	90	0	N	346
4	Auburn	A	PSTR-156- 06	Trib. to Androscoggi n River	2	PER	С	Y	Y	N/A	178	0	N	345
4	Auburn	A	PSTR-156- 07	Trib. to Androscoggi n River	2	PER	С	Y	Y	N/A	85	0	N	346
4	Durham	A	PSTR-157- 02	House Brook	2	PER	В	Y	Y	N/A	105	0	Y	348

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
4	Lewiston	A	ISTR-150-02	Trib. to No Name Brook	3	INT	В	Y	Y	N/A	197	0	Y	333
4	Pownal	A	ISTR-161-02	Brook	3	INT	В	N	N	N/A	117	0	Y	356
4	Lewiston	A	PSTR-146- 01	Trib. to Stetson Brook	4	PER	В	Y	N	Y	87	0	N	324
4	Lewiston	A	PSTR-146- 02	Trib. to Stetson Brook	4	PER	В	Y	N	Y	144	0	N	324
4	Lewiston	A	PSTR-152- 01	Trib. to No Name Brook	3	PER	В	Y	Y	N/A	58	0	N	337
4	Lewiston	A	PSTR-147- 01	Trib. to No Name Brook	3.5	PER	С	Y	Y	N/A	80	0	Y	326, 327
4	Lewiston	A	PSTR-148- 01	Trib. to No Name Pond	3.5	PER	В	Y	Y	N/A	87	0	Y	329
4	Lewiston	A	ISTR-150-01	Trib. to No Name Brook	4	INT	В	Y	Y	N/A	106	0	Y	332
4	Lewiston	A	PSTR-148- 02	Trib. to No Name Pond	4.5	PER	В	Y	Y	N/A	81	0	Y	329
4	Pownal	A	PSTR-161- 01	Runaround Brook	5	PER	В	N	N	N/A	15	0	N	358
4	Pownal	A	PSTR-161- 03	Runaround Brook	5	PER	В	N	N	N/A	472	0	N	358
4	Auburn	A	PSTR-155- 02	House Brook	8	PER	В	Y	Y	N/A	160	0	N	345
4	Durham	A	PSTR-160- 01	Runaround Brook	9	PER	В	N	N	N/A	108	0	Y	355
4	Durham	A	PSTR-160- 03	Trib. to Runaround Brook	12	PER	В	N	N	N/A	105	0	N	355
4	Durham	A	PSTR-158- 03	Libby Brook	15	PER	В	N	N	N/A	47	0	Y	351, 352
4	Lewiston	A	PSTR-151- 01	No Name Brook	25	PER	В	Y	Y	N/A	83	0	N	334, 335
4	Lewiston	A	PSTR-147- 02	Stetson Brook	50	PER	В	Y	N	Y	86	0	N	325
4	Lewiston	A	PSTR-149- 01	No Name Brook	50	PER	В	Y	Y	N/A	90	0	N	330
4	Auburn/ Lewiston	A	PSTR-155- 03	Androscoggi n River	645	PER	С	Y	Y	N/A	104	0	N	344

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
5	Wiscasset	В	ISTR-183-01	Trib. to Montsweag Brook	2	INT	В	Y	Y	N/A	140	0	N	370
5	Wiscasset	В	ISTR-188-09	Trib. to Back River/Monst weag Bay	3	INT	В	Y	Y	N/A	15,281	0	N	359
5	Whitefield	В	PSTR-171- 01	Trib. to Sheespcot River	40	PER	В	Y	Y	Y	355	0	Y	397
5	Whitefield	В	PSTR-172- 02	Trib. to Sheespcot River	20	PER	В	Y	Y	Y	101	0	N	395
5	Whitefield	В	ISTR-166-01	Trib. To Finn Brook	2	UNK	N/A	Y	Y	N/A	140	0	N	408
5	Whitefield	В	PSTR-166-	Finn Brook	5	PER	A	Y	Y	Y	395	0	Y	408
5	Whitefield	В	PSTR-168- 01	East Branch Eastern River	11	PER	В	Y	Y	N/A	206	0	N	403
5	Whitefield	В	PSTR-168- 02	East Branch Eastern River	3	PER	В	Y	Y	N/A	58	0	Y	403
5	Whitefield	В	PSTR-169- 01	East Branch Eastern River	5	PER	В	Y	Y	N/A	149	0	Y	402
5	Whitefield	В	ISTR-169-02	Trib. to East Branch Eastern River	2	UNK	В	Y	Y	N/A	296	0	N	402
5	Whitefield	В	ISTR-169-03	Trib. to East Branch Eastern River	2	UNK	N/A	Y	Y	N/A	178	0	Y	402
5	Whitefield	В	ISTR-169-04	Trib. to East Branch Eastern River	1	UNK	N/A	Y	Y	N/A	136	0	N	402
5	Whitefield	В	PSTR-170- 01	East Branch Eastern River	9	PER	В	Y	Y	N/A	189	0	Y	399, 400

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
5	Whitefield	В	ISTR-170-02	Trib. to East Branch Eastern River	2	INT	N/A	Y	Y	N/A	129	0	N	400
5	Whitefield	В	PSTR-172- 01	Trib. to Sheepscot River	6	PER	В	Y	Y	Y	226	0	N	394
5	Whitefield	В	PSTR-172- 03	Trib. to Sheepscot River	2	UNK	N/A	Y	Y	N/A	320	0	N	396
5	Whitefield	В	ISTR-173-01	Trib. to Sheepscot River	3	UNK	N/A	Y	Y	N/A	285	0	Y	392
5	Whitefield	В	PSTR-174- 01	Trib. to Sheepscot River	6	PER	В	Y	Y	Y	333	0	Y	391
5	Whitefield	В	ISTR-174-02	Trib. to Sheepscot River	3	UNK	В	Y	Y	Y	385	0	Y	391
5	Whitefield	В	PSTR-174- 03	Trib. to Sheepscot River	7	PER	В	Y	Y	Y	366	0	Y	389
5	Whitefield	В	ISTR-174-04	Trib. to Sheepscot River	1	UNK	В	Y	Y	Y	366	0	N	389
5	Whitefield	В	ISTR-175-01	Trib. to Sheepscot River	1	UNK	N/A	Y	Y	N/A	218	0	Y	388
5	Whitefield	В	PSTR-175- 02	Trib. to Sheepscot River	3	UNK	В	Y	Y	Y	201	0	Y	388
5	Alna	В	PSTR-176- 01	Trib. to Sheepscot River	5	INT	В	Y	Y	Y	209	0	Y	387
5	Alna	В	PSTR-177- 01	Trib. to Trout Brook	25	PER	В	Y	Y	Y	107	0	N	383
5	Alna	В	PSTR-178-	Trout Brook	8	PER	A	Y	Y	Y	264	0	N	381, 382
5	Alna	В	PSTR-178-	Trout Brook	15	PER	A	Y	Y	Y	133	0	N	381, 382
5	Alna	В	PSTR-179- 02	Trib. to Trout Brook	6	INT	В	Y	Y	N/A	119	0	Y	379, 380
5	Alna	В	PSTR-179- 03	Trib. to Trout Brook	6	PER	В	Y	Y	Y	198	0	N	379

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
5	Alna	В	ISTR-180-01	Trib. to Trout Brook	1	INT	В	Y	Y	N/A	112	0	N	377
5	Wiscasset	В	ISTR-181-01	Trib. to Ward Brook	3	UNK	N/A	Y	Y	N/A	82	0	Y	374
5	Wiscasset	В	ISTR-181-02	Ward Brook	2	UNK	В	Y	Y	N/A	114	0	Y	374, 375
5	Wiscasset	В	ISTR-182-01	Trib. Ward Brook	4	UNK	N/A	Y	Y	N/A	247	0	N	373
5	Wiscasset	В	PSTR-183- 02	Trib. to Montsweag Brook	0.5	UNK	В	Y	Y	N/A	39	0	Y	370
5	Wiscasset	В	ISTR-183-03	Trib. to Montsweag Brook	2	UNK	В	Y	Y	N/A	94	0	N	370
5	Wiscasset	В	ISTR-184-01	Trib. to Montsweag Brook	1.5	INT	В	Y	Y	N/A	140	0	N	369
5	Woolwich	В	ISTR-184-02	Trib. to Montsweag Brook	2.5	UNK	N/A	Y	Y	N/A	318	0	Y	367
5	Woolwich	В	ISTR-184-03	Trib. To Montsweag Brook	150	UNK	В	Y	Y	N/A	113	0	N	367, 368
5	Woolwich	В	ISTR-184-04	Trib. to Montsweag Brook	2.5	UNK	В	Y	Y	N/A	209	0	Y	367, 368
5	Wiscasset	В	ISTR-184-05	Trib. to Montsweag Brook	3	UNK	В	Y	Y	N/A	253	0	N	369
5	Wiscasset	В	ISTR-184-06	Trib. to Montsweag Brook	2	UNK	В	Y	Y	N/A	195	0	N	369
5	Wiscasset	В	ISTR-184-08	Montsweag Brook	25	UNK	В	Y	Y	N/A	55	0	Y	369
5	Wiscasset	В	ISTR-184-09	Montsweag Brook	30	PER	В	Y	Y	N/A	45	0	N	368, 369
5	Wiscasset	В	ISTR-184-10	Montsweag Brook	2.5	PER	В	Y	Y	N/A	66	0	N	368
5	Woolwich	В	ISTR-185-02	Trib. to Montsweag Brook	2.5	UNK	В	Y	Y	N/A	28	0	N	366

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)		Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
5	Woolwich	В	ISTR-185-03	Brook	1	UNK	В	Y	Y	N/A	23	0	N	366
5	Woolwich	В	ISTR-185-04	Brook	1	UNK	В	Y	Y	N/A	37	0	N	366
5	Woolwich	В	ISTR-185-05	Brook	1	UNK	В	Y	Y	N/A	62	0	Y	366
5	Woolwich	В	ISTR-185-06	Brook	3	UNK	В	Y	Y	N/A	312	0	N	
5	Wiscasset	В	ISTR-186-02	Trib. to Chewonki Creek	1	INT	В	Y	Y	N/A	4,335	0	N	364
5	Wiscasset	В	ISTR-187-01	Trib. to Chewonki Creek	2.5	INT	В	Y	Y	N/A	6,250	0	N	363
5	Wiscasset	В	ISTR-187-02	Trib. to Chewonki Creek	1.5	INT	В	Y	Y	N/A	6,262	0	N	363
5	Wiscasset	В	ISTR-187-03	Trib. to Chewonki Creek	1.5	INT	В	Y	Y	N/A	6,300	0	N	363
5	Wiscasset	В	ISTR-187-05	Trib. to Chewonki Creek	1	INT	В	Y	Y	N/A	6,728	0	N	362, 363
5	Wiscasset	В	ISTR-187-07	Trib. to Chewonki Creek	1	INT	В	Y	Y	N/A	7,099	0	N	362
5	Wiscasset	В	ISTR-187-15	Trib. to Back River/ Monstsweag Bay	1	INT	В	Y	Y	N/A	10,413	0	N	361
5	Wiscasset	В	ISTR-187-16	Trib. to Back River/ Monstsweag Bay	1	INT	В	Y	Y	N/A	10,248	0	N	361
5	Wiscasset	В	ISTR-187-17	Trib. to Back River/ Monstsweag Bay	1	INT	В	Y	Y	N/A	10,265	0	N	361

Segment	Town	MDIFW Region	Feature ID		Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
5	Wiscasset	В	ISTR-187-18	Trib. to Back River/ Monstsweag Bay	1	INT	В	Y	Y	N/A	10,246	0	N	361
5	Wiscasset	В	ISTR-187-22	Trib. to Chewonki Creek	1	INT	В	Y	Y	N/A	7,549	0	N	362
5	Wiscasset	В	ISTR-187-23	Trib. to Back River/ Monstsweag Bay	2.5	INT	В	Y	Y	N/A	10,710	0	N	361
5	Wiscasset	В	ISTR-188-05	Trib. to Back River/ Monstsweag Bay	1	INT	В	Y	Y	N/A	11,591	0	N	360
5	Wiscasset	В	ISTR-188-06	Trib. to Back River/ Monstsweag Bay	1	INT	В	Y	Y	N/A	11,601	0	N	360
5	Wiscasset	В	ISTR-186-03	Trib. to Chewonki Creek	1.5	INT	В	Y	Y	N/A	3,628	0	Y	364
5	Wiscasset	В	ISTR-186-04	Trib. to Chewonki Creek	1.5	INT	В	Y	Y	N/A	3,810	0	Y	364
5	Wiscasset/Wo olwich	В	ISTR-186-06	Trib. to Montsweag Brook	1.5	INT	В	Y	Y	N/A	1,334	0	N	365
5	Wiscasset	В	ISTR-187-13	Creek	2	INT	В	Y	Y	N/A	7,645	0	N	362
5	Wiscasset	В	ISTR-187-20	Creek	1.5	INT	В	Y	Y	N/A	9,419	0	N	361
5	Wiscasset	В	ISTR-187-21	Trib. to Chewonki Creek	1.5	INT	В	Y	Y	N/A	9,380	0	N	361
5	Wiscasset	В	PSTR-187- 19	Trib. to Chewonki Creek	1.5	PER	В	Y	Y	N/A	9,386	0	N	361

Segment	Town	MDIFW Region	Feature ID		Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)	Nearest New Structure Location (ft)	Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
5	Wiscasset	В	PSTR-187- 24	Trib. to Chewonki Creek	1.5	PER	В	Y	Y	N/A	8,911	0	N	361, 362
5	Windsor	В	ISTR-162-03	Trib. to West Branch Sheepscot River	2	INT	В	Y	Y	N/A	339	0	N	417
5	Windsor	В	ISTR-162-04	Trib. to West Branch Sheepscot River	2	INT	В	Y	Y	N/A	566	0	N	417
5	Windsor	В	ISTR-162-05	Trib. to West Branch Sheepscot River	2	INT	В	Y	Y	N/A	628	0	N	417
5	Windsor	В	ISTR-162-08	Sheepscot River	2	INT	В	Y	Y	N/A	1,664	0	N	
5	Wiscasset	В	ISTR-187-06	Trib. to Chewonki Creek	2	INT	В	Y	Y	N/A	8,231	0	N	362
5	Wiscasset	В	ISTR-187-08	Creek	2	INT	В	Y	Y	N/A	7,599	0	N	362
5	Wiscasset	В	ISTR-187-09	Trib. to Chewonki Creek	2	INT	В	Y	Y	N/A	7,709	0	N	362
5	Wiscasset	В	ISTR-187-10	Trib. to Chewonki Creek	2	INT	В	Y	Y	N/A	7,607	0	N	362
5	Wiscasset	В	ISTR-187-11	Trib. to Chewonki Creek	2	INT	В	Y	Y	N/A	7,490	0	N	362
5	Wiscasset	В	ISTR-187-12	Trib. to Chewonki Creek	2	INT	В	Y	Y	N/A	7,409	0	N	362

Segment	Town	MDIFW Region	Feature ID		Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)		Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
5	Wiscasset	В	ISTR-187-14	Trib. to Chewonki Creek	2	INT	В	Y	Y	N/A	7,906	0	N	362
5	Wiscasset	В	ISTR-188-02	Trib. to Back River/ Monstsweag Bay	2	INT	В	Y	Y	N/A	14,492	0	N	359
5	Wiscasset	В	ISTR-188-03	Trib. to Back River/ Monstsweag Bay	2	INT	В	Y	Y	N/A	13,444	0	N	359, 360
5	Wiscasset	В	ISTR-188-07	Trib. to Back River/ Monstsweag Bay	2	INT	В	Y	Y	N/A	14,547	0	N	359
5	Windsor	В	PSTR-162- 02	Trib. to West Branch Sheepscot River	2	PER	В	Y	Y	Y	291	0	N	417
5	Windsor	В	PSTR-162- 06	Trib. to West Branch of Sheepscot River	1.5	PER	В	Y	Y	Y	1,595	0	N	
5	Wiscasset	В	ISTR-186-05	Trib. to Montsweag Brook	1.5	INT	В	Y	Y	N/A	2,386	0	N	364, 365
5	Wiscasset	В	ISTR-186-07	Trib. to Montsweag Brook	3	INT	В	Y	Y	N/A	2,193	0	N	365
5	Wiscasset	В	ISTR-188-01	Trib. to Back River/ Monstweag Bay	3	INT	В	Y	Y	N/A	15,388	0	N	359
5	Wiscasset	В	ISTR-188-08	Trib. to Back River/ Monstsweag Bay	3	INT	В	Y	Y	N/A	12,829	0	N	360
5	Wiscasset	В	ISTR-186-01	Trib. to Chewonki Creek	4	INT	В	Y	Y	N/A	5,614	0	N	363

Segment	Town	MDIFW Region	Feature ID		Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)		Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
5	Wiscasset	В	PSTR-188- 04	Trib. to Back River/ Monstsweag Bay	1	PER	В	Y	Y	N/A	12,450	0	Y	360
5	Wiscasset	В	ISTR-187-04	Trib. to Chewonki Creek	5	INT	В	Y	Y	N/A	6,112	0	N	363
5	Windsor	В	PSTR-162- 01	Trib. to West Branch Sheepscot River	8	PER	В	Y	Y	Y	265	0	N	417
5	Windsor	В	PSTR-162- 09	Trib. to West Branch Sheepscot River	3	PER	В	Y	Y	Y	158	0	N	416, 417
5	Windsor	В	PSTR-162- 13	Trib. to West Branch Sheepscot River	1.5	PER	В	Y	Y	Y	778	0	N	417
5	Windsor	В	ISTR-162-07	Trib. to West Branch Sheepscot River	8	INT	В	Y	Y	N/A	268	0	N	417
5	Windsor	В	ISTR-162-14	Trib. to West Branch Sheepscot River	8	INT	В	Y	Y	N/A	53	0	N	416
5	Windsor	В	PSTR-163- 01	Trib. to West Branch Sheepscot River	40	PER	AA	Y	Y	Y	319	0	N	415
5	Woolwich	В	PSTR-185- 01	Trib. to Montsweag Brook	9.5	PER	В	Y	Y	N/A	559	0	N	365
5	Wiscasset/Wo olwich	В	PSTR-186- 08	Montsweag Brook	17.5	PER	В	Y	Y	N/A	1,219	0	N	365

Segment	Town	MDIFW Region	Feature ID	Stream Name <sup>1</sup>	Ave. Stream Width (ft) <sup>2</sup>	Stream Type (PER/ INT) <sup>3</sup>	State Water Quality Classification <sup>4</sup>	Atlantic Salmon GOM DPS Critical Habitat (Y/N) <sup>5</sup>	Atlantic Salmon Habitat (Y/N) <sup>6</sup>	Brook Trout <sup>7</sup> (Y/N)		Width of Additional Corridor Clearing <sup>8</sup> (ft)	Temp. Equip. Crossing <sup>9</sup> (Y/N)	Natural Resource Map/Sheet Number
5	Windsor	В	PSTR-162- 12	Trib. to West Branch Sheepscot River	40	PER	В	Y	Y	Y	362	0	N	416
5	Windsor	В	PSTR-163- 02	West Branch Sheepscot River	40	PER	AA	Y	Y	Y	51	0	N	414, 415, 416