

**DILLON**  
CONSULTING

NATURAL FORCES DEVELOPMENTS LP

## **Wildlife Appendix 2021-2022**

Benjamins Mill Wind Project





December 14, 2022

Natural Forces Developments LP  
Benjamins Mill Wind Project  
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Halifax, NS  
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Attention: Megan MacIsaac

Wildlife Appendix: 2021 -2022 Wildlife and Wildlife Habitat Assessment for the  
Benjamins Mill Wind Project

Dillon Consulting Limited (Dillon) is pleased to provide you with the final report for the wildlife and wildlife habitat assessments conducted as part of the environmental assessment for the Benjamins Mill Wind Project.

We trust the following meets your present needs. If you have any questions or comments, please contact the undersigned at (902)-450-4000 ext. 5052 at your convenience.

Sincerely,

DILLON CONSULTING LIMITED

A handwritten signature in black ink, appearing to read "Kelly Regan".

Kelly Regan, M.Sc.  
Project Manager, Associate

KSR:lmk  
Enclosure

Our file: 22-4064

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# Introduction

Dillon Consulting (Dillon) was retained by Natural Forces Developments Limited Partnership (the Proponent) on behalf of the Benjamins Mill Wind Limited Partnership to complete natural environment surveys in support of the development of a Nova Scotia Environmental Assessment Registration Document (EARD) and associated Addendum for the Benjamins Mill Wind Project (BMWWP or the Project). The Project is being developed and will be owned and operated by the Benjamins Mill Wind Limited Partnership, a partnership between Natural Forces Developments Limited Partnership (referred to herein as the Proponent or Natural Forces) and Wskijnu'k Mtmo'taqtuow Agency Limited (the Agency), a corporate body wholly owned by the 13 Mi'kmaw bands in Nova Scotia. Natural Forces acts on behalf of the Benjamins Mill Wind Limited Partnership for many aspects of Project development.

The proposed Project consists of up to 28 wind turbine generators (WTGs) capable of producing up to 150 MW of renewable energy that will be connected to the existing Nova Scotia Power transmission grid via an overhead transmission line, as well as a substation (Figure 1). The Project is located in an undeveloped fragmented forested area in Hants County near the communities of Smiths Corner and Falls Lake. The WTGs are proposed to be located in areas that have been previously clear-cut through forestry activities, creating a highly fragmented habitat.

The proposed project is located in an area where wildlife is present. Wildlife and wildlife habitats are considered important features and valued environmental components (VECs) because they are valued in their relationship with other biological and physical components addressed as VECs in this environmental assessment (EA). Natural environment surveys for the Project were conducted for VECs that were identified based on an understanding of the environmental features of the proposed project area, the nature of the Project, and the potential interactions that may occur between the proposed project and the environment/VECs.

Taking into consideration the objectives of the EARD, this report provides an effects assessment on wildlife, and includes: a summary of the baseline wildlife surveys conducted in support of the Benjamins Mill Wind Project EARD and Addendum, and includes: a brief description of the proposed project; a description of the scope and methodology used for the wildlife surveys, a summary of the survey results, and, an assessment of residual effects (including potential interactions and mitigation) of the proposed project on wildlife and wildlife habitat.

## 1.1 Background

The Project is located in an undeveloped fragmented forested area in Hants County near the communities of Smiths Corner and Falls Lake (Figure 1). The Project site was selected due to the existing anthropogenic land uses and impacts over these areas, in order to minimize impacts to undeveloped lands as much as feasible. The regional vegetation of the South Mountain eco-district is generally dominated by Acadian forest tree species. Locally, the site consists of two eco-elements; the Spruce Hemlock Pine Hummocks and Hills eco-element, and the Red and Black Spruce Hummocks eco-element (NSDLF 2019). The majority of the site is covered by the Spruce Hemlock Pine Hummocks and Hills eco-element, which consists of well drained coarse-grained soils. This eco-element is dominated by Red Spruce (*Picea rubens*), Eastern Hemlock (*Tsuga canadensis*) and Eastern White Pine (*Pinus strobus*) in areas with slightly moist soils; and by Eastern White Pine, Red Oak (*Quercus rubus*) and Red Pine (*Pinus resinosa*) on the drier hilltops. The remaining portions of the site, which tend to be wetter and consist of imperfectly drained coarse-grained soils (NSDLF 2019), are characterized by the Red and Black Spruce Hummocks eco-element. This eco-element includes late successional shade-tolerant softwoods, such as Red Spruce and Eastern Hemlock, along with Eastern White Pine (NSDFL 2019).

The Wind Turbine Generators (WTGs) are proposed in areas of highly fragmented habitat, due to previous clear-cutting and forestry activities. The Project has the potential to transform this disturbed habitat into a site that will provide an environmentally friendly and productive source of renewable energy for Nova Scotia while limiting potential impacts to the environment. Development of wind energy projects has been instrumental in reducing harmful greenhouse gases associated with traditional carbon-based energy sources, both locally and abroad. Further, as previously mentioned, the Nova Scotia provincial target is to produce 80% of its energy from renewable sources by 2030. With less than a decade until this deadline, the development of wind energy is the most feasible option to help meet renewable energy goals while providing economic development for local communities.

There is potential for interactions between wildlife, its habitat, and the proposed Project activities. Particular focus is placed on wildlife species at risk (SAR) and species of conservation concern (SOCC) as identified by provincial and federal regulatory agencies. SAR/SoCC are often susceptible to changes in the environment and, therefore, are useful indicators of ecosystem health and regional biodiversity. Both provincial and federal legislation provides protections to designated fauna SAR. SAR are protected under the federal Species at Risk Act (SARA) and the Nova Scotia Endangered Species Act (ESA).

Although the Project layout was designed to minimize the disturbance of naturalized areas as well as prioritizing development in areas with existing anthropogenic disturbance, some areas within the proposed footprint for the Project will extend through less disturbed habitat types, including areas with mature trees, wetlands, and watercourses.

## 1.2

## Purpose and Objectives of the Report

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This report provides a summary of the terrestrial wildlife assessments that were conducted as part of the biophysical surveys undertaken in support of the Project Environmental Assessment (EA) registration. The report includes:

- Brief description of the Project;
- Description of the scope and methods used for the surveys;
- The results of the desktop and field assessment; and,
- An assessment of residual effects (including potential interactions and mitigation) of the proposed Project on wildlife and wildlife habitats.

## 2.0

## Project Description

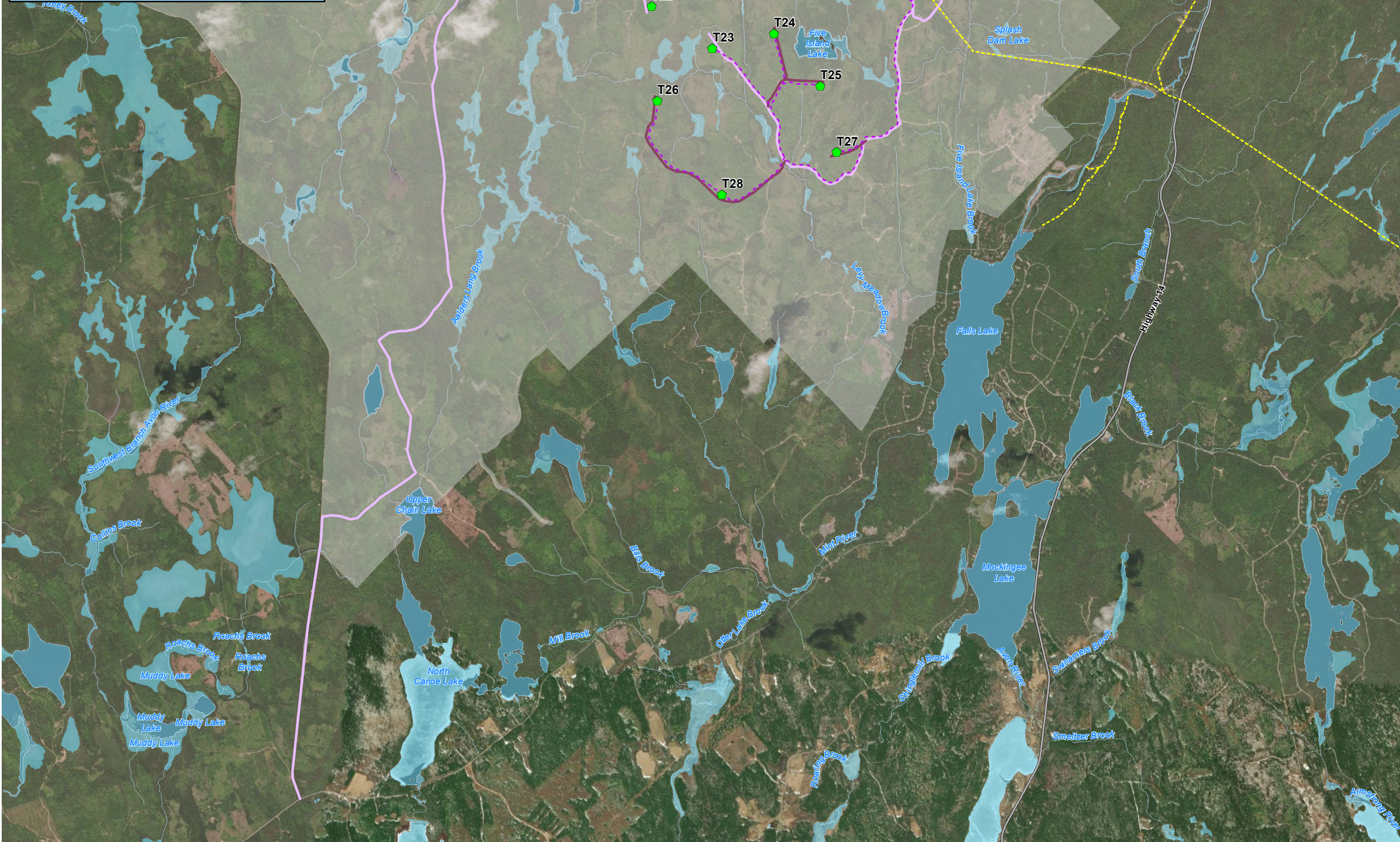
The following is a high-level summary of the Project. Please refer to the Benjamins Mill Wind Project Environmental Registration Document Addendum (the Addendum) dated December 2022 for further information.

The Project is located in Hants County, approximately 10 km southwest of Windsor. The Project is proposed to have an installed capacity of up to 150 MW, amounting to up to 28 wind turbine generators (WTGs) and associated infrastructure, including an electrical substation, collector lines, and overhead transmission line (Figure 1).

The Project will be located predominantly on privately-owned land with four WTGs located on provincial Crown lands near Highway 14. The privately-owned site lands have undergone several generations of wood harvesting and contain a network of existing forestry roads. The provincial Crown lands are largely undisturbed with few existing roads that access the property. The Project site has met crucial factors that determine suitability, which include features such as the strength and consistency of the wind resources and its proximity to existing electrical and civil infrastructure. The Project site was selected due to the existing mixed anthropogenic land uses and historical anthropogenic impacts in these areas, in order to minimize impacts to undeveloped lands to the extent feasible.

The purpose of the Project is to contribute to Nova Scotia achieving their renewable electricity targets through the generation of clean and renewable energy. Not only will this have environmental benefits, but will also reduce Nova Scotia's reliance on imported energy sources through the development of localized renewable energy generation (Renewable Electricity Regulations 2021).



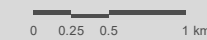


BENJAMINS MILL PROJECT

**PROJECT LOCATION AND SITE LAYOUT**

FIGURE 1

- Proposed Turbine Location
- Proposed Substation Location
- Crown Land
- Privately Owned Land
- Proposed Collector Network
- Roads to be Upgraded
- Proposed Access Road
- Proposed Alternative Access Road
- Proposed Interconnection Line
- Transmission Line
- Highway
- Watercourse
- Waterbodies



SCALE 1:50,000



MAP DRAWING INFORMATION:  
DATA PROVIDED BY DILLON CONSULTING, GEONB, NATURAL FORCES

MAP CREATED BY: DU  
MAP CHECKED BY: KB  
MAP PROJECTION: NAD 1983 UTM ZONE 20N



PROJECT: 21-1329  
STATUS: DRAFT  
DATE: 2022-12-14

## 3.0 Scope of Work

The scope of work for the wildlife surveys is based on the recommended approach outlined in the Guide to Preparing an EA Registration Document for Wind Power Projects in Nova Scotia (NSECC 2021), as well as in the Guide to Addressing Wildlife Species and Habitat in an EA Registration Document (NSECC 2009). Due to the complexity of the specific assessments conducted for birds and bats, the details of those surveys are included in their own respective reports.

The scope of work for the wildlife and wildlife habitat surveys included the following:

- An initial desktop assessment of habitats within the Local Assessment Area (LAA);
- A desktop assessment of wildlife SAR and SoCC that have the potential to occur within the Potential Development Area (PDA);
- Targeted habitat search of reptiles and amphibians within the LAA; and,
- Incidental observations of terrestrial wildlife, signs and habitat documentation throughout the 2021 and 2022 field seasons.

### 3.1 Spatial Boundaries

For the purpose of this assessment, the spatial boundaries have been defined below in Table 1 and shown on Figure 2. The LAA, which is described below in Table 1, encompasses the terrestrial habitats located adjacent to the PDA for the assessment of terrestrial wildlife and habitats that are most likely to be impacted by the Project. Around turbine bases, substations and ancillary equipment, the LAA includes a larger buffer (i.e., 150 m) to assess current disturbances and understand the potential effects of the Project on wildlife and wildlife habitats.

**Table 1: Spatial Boundaries for the Assessment of Wildlife and Wildlife Habitats**

Assessment Area	Definition	Purpose of Boundary
Potential Development Area	Area encompasses the Project footprint and a buffer of 15 m on either side of shoulders of the roadways (either existing or new) and collector lines and transmission line, a 75 m buffer around the base of each turbine location, and a 25 m buffer around the substation.	Represents the extent of all anticipated areas that could undergo physical disturbance associated with the Project. This area encompasses all of the proposed 28 turbines locations and their associated infrastructure. The Project would consist of up to 12 of those locations and their associated infrastructure.
Study Area	Transect-based survey areas within the LAA targeting representative habitats.	The area covered on foot during surveys. Observations in the study area are applied to understand potential effects of the Project on the LAA.

Assessment Area	Definition	Purpose of Boundary
Local Assessment Area	Area encompasses a buffer of 150 m surrounding the Project footprint of the proposed turbine locations, substation, and ancillary equipment, and a 50 m buffer surrounding connector lines, road upgrades and transmission line corridors.	The maximum area where Project-specific environmental interactions can be predicted and measured with a reasonable degree of accuracy and confidence (i.e. the zone of influence of the Project phases on each VEC).



## 4.0 Methods

The methods of the desktop survey and field surveys are described below.

### 4.1 Desktop Survey

Prior to completing the terrestrial field surveys, Dillon reviewed readily-available information from reputable sources. The information was reviewed to evaluate the potential for wildlife and wildlife habitat within the LAA, and to assist in scoping the field program. The information was reviewed, along with information on habitats present in the LAA to determine preliminary potential for at-risk wildlife species and/or their critical habitat. Dillon completed a review of the following sources and data lists prior to completing the field surveys:

- Guide to Addressing Wildlife Species and Habitat in an EA Registration Document (NSE 2009);
- Custom AC CDC reports for the site (AC CDC 2021; 2022);
- Available mapping to develop a list of potential terrestrial wildlife habitats from:
  - Nova Scotia Department of Natural Resources and Renewables (NS DNRR) forest inventory database;
  - NS DNRR ownership and restricted/limited land-use database;
  - NS DNRR wet areas mapping (WAM);
  - Publicly-available GIS map layers (e.g., ecological land classification, forest and non-forest inventory, wetland inventory, Protected Natural Areas, and Wildlife Management Zones);
  - NS Provincial Landscape Viewer; and,
  - Google® Earth satellite imagery.

#### 4.1.1 Habitat Assessment Map

Following the recommendation of Environment and Climate Change Canada's (ECCC) Canadian Wildlife Service (CWS), available mapping through the NS DNRR was reviewed to identify forest types, general land use, wetlands, and watercourses within 500 m of the PDA. Observations gathered during the biophysical assessments carried out for this EA and aided by Google® satellite imagery were used to confirm the existing site conditions within the PDA. A GIS map was generated to show the existing habitat and land use features within the PDA and to calculate the area of potential disturbance within each land type.

### 4.2 Field Surveys

#### 4.2.1 Incidental Wildlife Reporting

Field studies of terrestrial habitats were conducted between April and October in 2021 and 2022, in collaboration with other targeted field surveys (i.e., bird surveys, wetlands, watercourses, baseline

vegetation and rare plants). Biologists focused on the general characterization of available terrestrial habitats within the survey area, as well as the potential for sensitive species or their critical habitats occurring in the survey area. The following criteria were documented:

- Occurrence of SAR/SoCC;
- Potential habitat for SAR/SoCC; and,
- Incidental observation and documentation of observed wildlife (regardless of conservation status), signs of wildlife, and their habitat.

### 4.3 Wildlife Species at Risk Assessment

The PDA will span several landscapes and include areas that have the potential to provide habitat for SAR and SoCC populations. Natural Forces is committed to protecting SAR, SoCC, and their habitat as important features and VECs related to the Project.

For this EA, the following definitions of SAR and SoCC apply:

- **Species at Risk (SAR):** A species that is determined to be Endangered, Threatened, or Vulnerable/Special Concern by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), *Nova Scotia Endangered Species Act* (NSESA), or the federal *Species at Risk Act* (SARA); and,
- **Species of Conservation Concern (SoCC):** Those` species that are not SAR but are identified as regionally vulnerable or imperilled by the Atlantic Canada Conservation Data Centre (AC CDC) (i.e., those species with AC CDC S-ranks of S1: Critically imperilled in province; S2: Imperilled in province; and S3: Vulnerable in province of Nova Scotia).

Dillon reviewed information to evaluate the potential for fauna SAR and SoCC within 100 km of the Project. Dillon completed a review of the following sources and data lists for the purpose of characterizing existing conditions at the Project site:

- Custom AC CDC reports (AC CDC 2021, AC CDC 2022);
- The federal SAR registry;
- The provincial Endangered Species registry;
- Publicly-available governmental Geographic Information Systems (GIS) map layers and databases;
- Nova Scotia Provincial Landscape Viewer mapping resource;
- Provincial Parks and Protected Areas mapping; and,
- Environmentally Sensitive Areas (ESAs) database.

## 5.0 Results

The results of both the desktop and field surveys for terrestrial wildlife, excluding birds and bats, which are provided in their own separate reports, are presented below.

### 5.1 Desktop Survey

Information from reputable sources (described above in section 4.1) was reviewed to evaluate the potential for wildlife and wildlife habitat within the general area of the Project. The following managed or protected habitats have been identified within 5 km of the PDA:

- The Falmouth Municipal Water Supply and Water Supply Area, approximately 3.5 km north;
- Mill Lakes Watershed, approximately 4.7 km east; and,
- Southern Bight Minas Basin Important Bird Area (IBA), approximately 3.8 km northeast.












A deer wintering area (DWA) is located adjacent to the Project site, on the north side of the West Branch of the Avon River. During the winter, white-tailed deer (*Odocoileus virginianus*) congregate in high-density groups in areas that provide shelter from prevailing wind, offer maximum exposure to the sun, and offer cover, as well as access to vegetation for browsing (NSDNR 2012). DWAs are identified by NSDNR as areas for special management practices in Nova Scotia. Although there are no designated DWAs within the PDA, there is potential for deer to winter in uncut forest areas, generally located on the east side of the Project site.

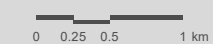
#### 5.1.1 Habitat Assessment Map

The habitats identified within the PDA are shown on Figure 3, showing the areal coverage within the PDA as well as the area surrounding the Project. These areal coverages are summarized in Table 1 indicating the estimated area in hectares (ha) within the PDA and estimated percentage each habitat covers within the PDA. Habitat areas were identified through available mapping (as listed in Section 4.1) and Google® satellite imagery.

The Project layout was designed to minimize the disturbance of naturalized areas by prioritizing development in areas with existing anthropogenic disturbance. Some areas within the proposed footprint for the Project will extend through less disturbed habitat types, including areas with mature trees, wetlands, and watercourses. Approximately 34% of the PDA is located within areas that have been previously disturbed by forestry, recreational trails and access roads, the remaining 66% of the PDA will be developed within existing forest habitat, as summarized in Table 2. It is noted that the PDA was conservatively defined (see Table 1, above) and includes areas that are unlikely to be directly impacted by the Project (e.g., areas below collector lines that will be spanned using poles and buffered areas extending from the shoulders of access roads etc.).

**WILDLIFE HABITAT ASSESSMENT**  
FIGURE 3

-  Proposed Turbine Location
-  Proposed Substation Location
-  Potential Development Area (PDA)
-  Local Assessment Area
-  Watercourse
-  Waterbodies
-  Wetland
- Habitat Type**
-  Softwood - Dominant Forest
-  Mixedwood - Dominant Forest
-  Hardwood - Dominant Forest
- Anthropological Landuse Type**
-  Recently Cut Area or Regenerating



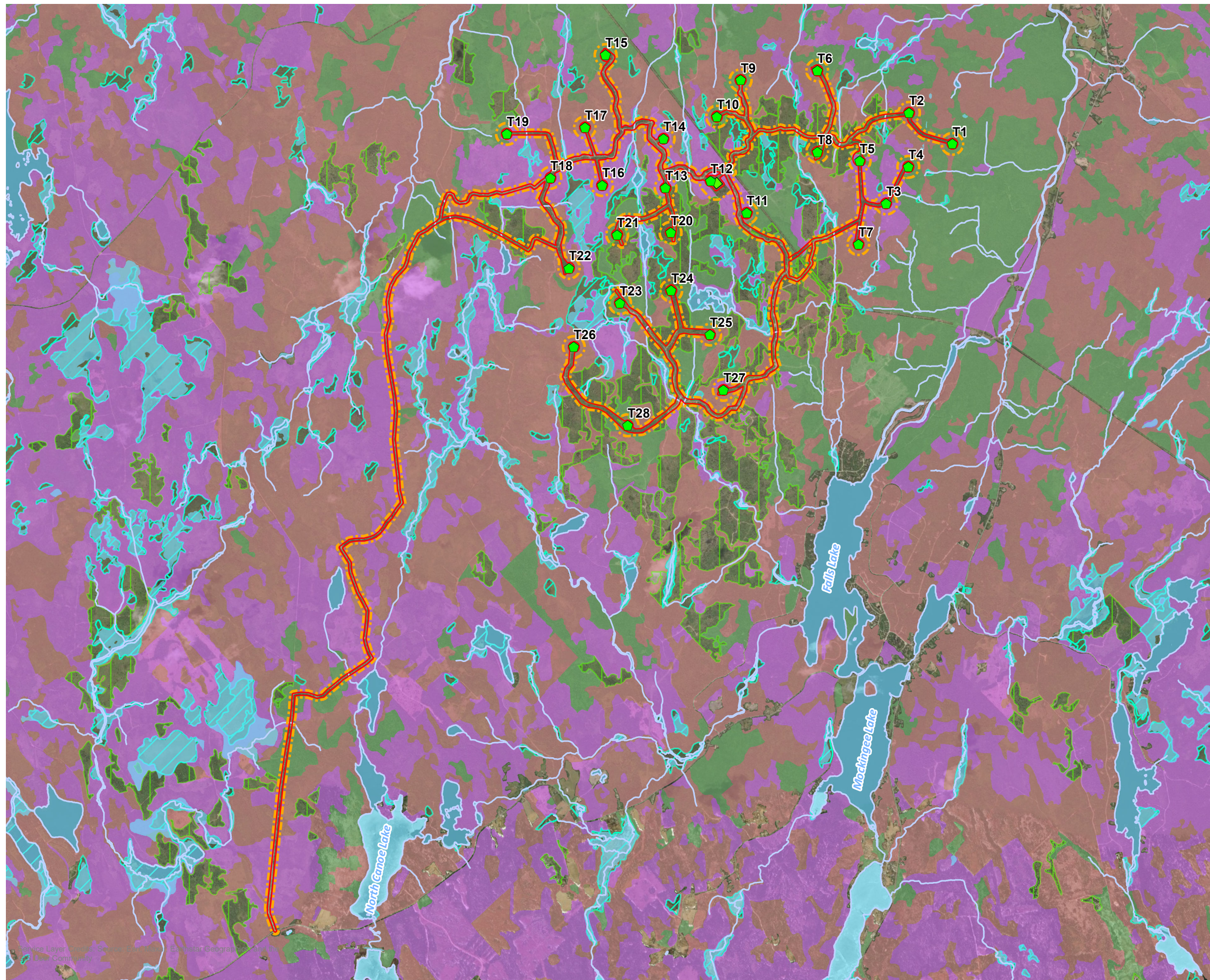
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MAP DRAWING INFORMATION:  
DATA PROVIDED BY DILLON CONSULTING, GEONB, NATURAL FORCES

MAP CREATED BY: DU  
MAP CHECKED BY: KB  
MAP PROJECTION: NAD 1983 UTM ZONE 20N



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**Table 2: Habitat Distribution within the Project Development Area (PDA)**

Habitat	Area within the PDA (ha) <sup>1</sup>	Percentage of the PDA <sup>2</sup>
Hardwood-dominant Forest	43	15%
Mixedwood Forest	67	23%
Softwood-dominant Forest	78	27%
Non-forested Wetlands	1	<1%
<b>Total Non-Disturbed Areas<sup>3</sup></b>	<b>188</b>	<b>66%</b>
Recently Cut Area or Regenerating Wood Lot	68	24%
Forestry Access Roads (Existing)	28	10%
Other (includes gravel pit and corridors)	1.5	<1%
<b>Total Area with Anthropogenic Disturbance</b>	<b>98</b>	<b>34%</b>

**Notes:**

1. Area calculations are estimates and are based on NSDNRR mapping and observations recorded at the site during the 2021 and 2022 biophysical surveys;
2. As previously described, the PDA encompasses all of the proposed 28 turbines locations and their associated infrastructure.
3. Non-disturbed habitats include treated and un-cut forestry stands and plantations

## 5.2 Field Survey Results







### 5.2.1 Incidental Wildlife Observations

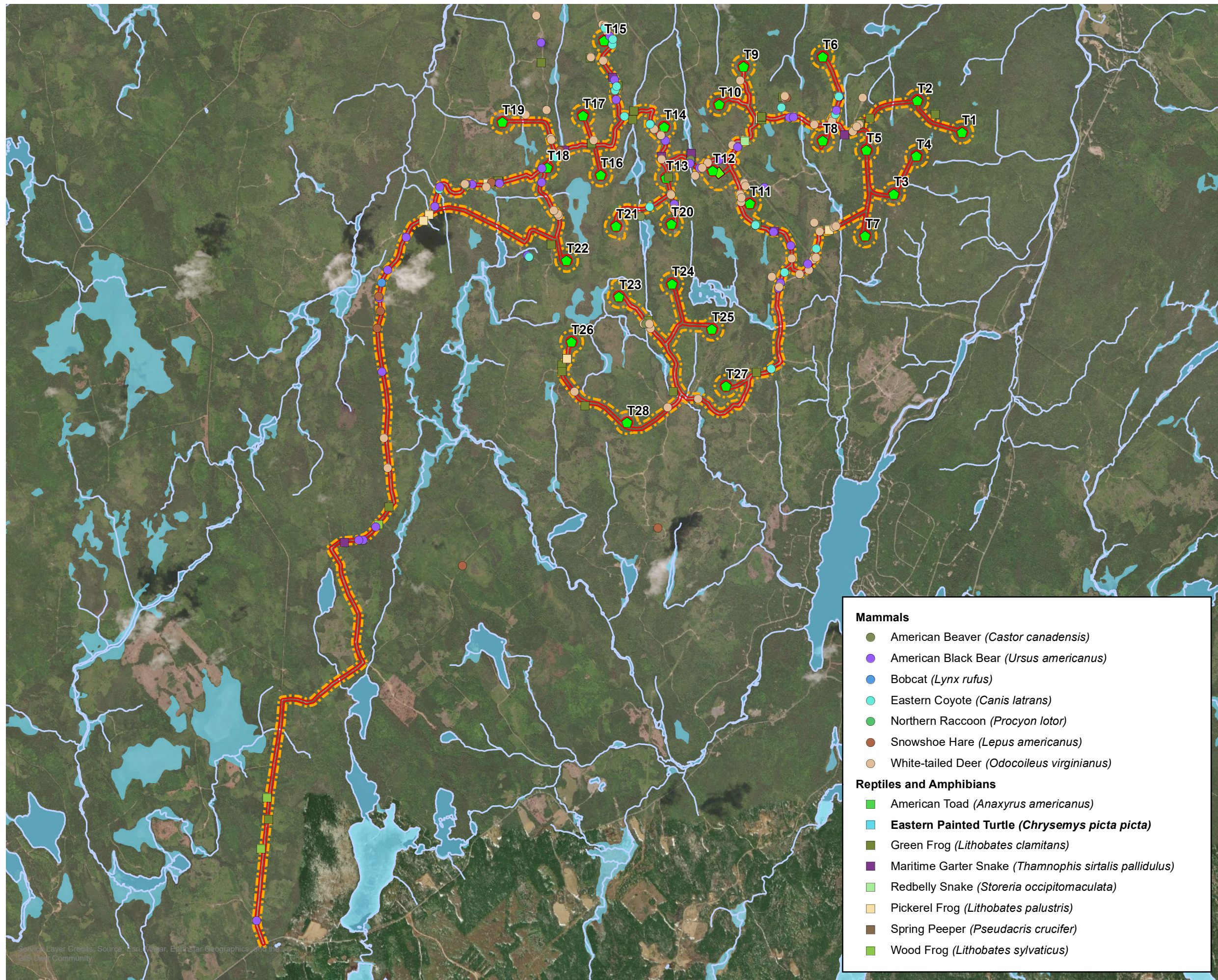
During the 2021 and 2022 biophysical surveys for the EA of the Project, Dillon biologists recorded incidental observations or detections of wildlife during the course of other survey efforts, and, when possible, photographs were taken (see Appendix A for representative photos). Such detections are rarely direct observations or vocalizations, but rather proxy evidence that is left behind and remains identifiable to species for some time after the animal has moved on. This includes more readily detectable indicators such as animal tracks in snow/mud, or animal scat, but also less obvious indicators such as browse marks, dens, and/or burrow structures.
















During the 2021 and 2022 field surveys, observations of 11 mammal species and 13 herptile (i.e., reptiles and amphibians) species were identified within the assessment area. Where data are available, the locations of observations are shown on Figure 4.

TERRESTRIAL WILDLIFE OBSERVATIONS WITHIN THE LOCAL ASSESSMENT AREA

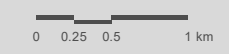
FIGURE 4

-  Proposed Turbine Location
-  Proposed Substation Location
-  Potential Development Area (PDA)
-  Local Assessment Area
-  Watercourse
-  Waterbodies



- Mammals**
-  American Beaver (*Castor canadensis*)
  -  American Black Bear (*Ursus americanus*)
  -  Bobcat (*Lynx rufus*)
  -  Eastern Coyote (*Canis latrans*)
  -  Northern Raccoon (*Procyon lotor*)
  -  Snowshoe Hare (*Lepus americanus*)
  -  White-tailed Deer (*Odocoileus virginianus*)
- Reptiles and Amphibians**
-  American Toad (*Anaxyrus americanus*)
  -  **Eastern Painted Turtle (*Chrysemys picta picta*)**
  -  Green Frog (*Lithobates clamitans*)
  -  Maritime Garter Snake (*Thamnophis sirtalis pallidulus*)
  -  Redbelly Snake (*Storeria occipitomaculata*)
  -  Pickerel Frog (*Lithobates palustris*)
  -  Spring Peeper (*Pseudacris crucifer*)
  -  Wood Frog (*Lithobates sylvaticus*)

\*Note: Bold indicates a Species at Risk



SCALE 1:50,000

MAP DRAWING INFORMATION:  
DATA PROVIDED BY DILLON CONSULTING, NSDNRR, NATURAL FORCES

MAP CREATED BY: MEC  
MAP CHECKED BY: KB  
MAP PROJECTION: NAD 1983 UTM ZONE 20N



PROJECT: 21-1329

STATUS: DRAFT

DATE: 2022-12-14

The mammal species observed or detected include:

- American beaver (*Castor canadensis*);
- Northern raccoon (*Procyon lotor*);
- Bobcat (*Lynx rufus*);
- American black bear (*Ursus americanus*);
- Fisher (*Pekania pennanti*);
- Eastern coyote (*Canis latrans*);
- North American porcupine (*Erethizon dorsatum*);
- Northern flying squirrel (*Glaucomys sabrinus*);
- Snowshoe hare (*Lepus americanus*);
- Striped skunk (*Mephitis mephitis*); and,
- White-tailed deer (*Odocoileus virginianus*).

Herptile species observed, or detected, include:

- Eastern newt (*Notophthalmus viridescens*);
- Green frog (*Lithobates clamitans*);
- Maritime garter snake (*Thamnophis sirtalis pallidulus*);
- Northern ring-necked snake (*Diadophis punctatus edwardsii*);
- Eastern painted turtle (*Chrysemys picta picta*);
- Northern leopard frog (*Lithobates pipiens*);
- Pickerel frog (*Lithobates palustris*);
- Redbelly snake (*Storeria occipitomaculata*);
- Mink frog (*Lithobates septentrionalis*);
- Spring peeper (*Pseudacris crucifer*);
- American bullfrog (*Lithobates crucifer*);
- American toad (*Anaxyrus americanus*); and,
- Wood frog (*Lithobates sylvaticus*).

A list of recorded observations of wildlife species from the 2021 and 2022 field seasons (excluding birds and bats which are included in their own reports) is presented in Table 2 below and includes their AC CDC S-ranks, date of observation, and type of observation. The wildlife species observed have apparently secure and secure populations (i.e., ranked as S4 or S5) within Nova Scotia according to the AC CDC (2022) except for fisher which is ranked as S3 – Vulnerable. Although ranked S4S5 by the AC CDC, the eastern painted turtle is listed as Special Concern under SARA. Fishers and eastern painted turtles are further discussed in Section 5.3 as SoCC and SAR, respectively.

**Table 3: Wildlife Observations from 2021-2022 Field Surveys (Excluding Bats and Birds)**

Species	S-Rank	Date	Observations
White-tailed Deer ( <i>Odocoileus virginianus</i> )	S5	2021-05-04	Fresh tracks
		2021-05-04	Direct observation
		2021-05-05	Fresh tracks
		2021-05-05	Fresh tracks
		2021-05-10	Direct observation
		2021-05-11	Fresh tracks
		2021-05-19	Fresh tracks
		2021-05-25	Fresh tracks
		2021-05-28	Fresh tracks
		2021-05-28	Fresh tracks
		2021-05-28	Direct observation
		2021-06-02	Fresh tracks
		2021-06-02	Direct observation
		2021-06-03	Fresh tracks
		2021-06-03	Fresh tracks
		2021-06-24	Fresh tracks
		2021-06-24	Fresh tracks
		2021-06-24	Fresh tracks
		2021-06-24	Direct observation
		2021-06-29	Fresh tracks
		2021-06-29	Fresh tracks
		2021-07-21	Direct observation - Doe with fawn
		2021-07-21	Direct observation - Doe with fawn
		2021-08-24	Fresh tracks
		2021-08-24	Direct observation
		2021-08-26	Doe with fawn
		2021-09-11	Fresh tracks
		2021-09-13	Fresh tracks
		2021-09-13	Direct observation
		2021-09-13	Fresh tracks
		2021-09-14	Fresh tracks
		2021-09-14	Direct observation
		2021-09-14	Direct observation
		2021-09-14	Fresh tracks
2021-09-21	Fresh tracks		
2021-09-21	Fresh tracks		
2021-10-18	Fresh tracks		

Species	S-Rank	Date	Observations
		2022-05-03	Direct observation
		2022-05-03	Tracks
		2022-05-20	Tracks
		2022-05-26	Tracks observed in two locations
		2022-06-01	Direct observation
		2022-06-08	Direct observation
		2022-06-08	Tracks
		2022-07-07	Fresh tracks
		2022-07-08	Fresh tracks
		2022-07-14	Tracks
		2022-08-04	Tracks
		2022-08-04	Scat
		2022-08-05	Scat
		2022-08-31	Tracks
		2022-09-02	Scat
		2022-09-09	Fresh tracks
		2022-09-20	Scat
		2022-09-28	Scat
		2022-09-29	Tracks
		2022-10-14	Tracks
2022-10-14	Tracks		
American Beaver (Castor canadensis)	S5	2021-09-01	Recent beaver chewed sticks, stumps
		2021-10-04	Recently built dam and recent chew evidence
		2021-10-06	Recent chew
		2022-09-29	Beaver gnaw
Eastern Coyote (Canis latrans)	S5	2021-05-05	Fresh tracks
		2021-05-10	Fresh tracks
		2021-05-10	Fresh tracks
		2021-05-11	Fresh scat
		2021-05-28	Fresh tracks
		2021-06-02	Fresh scat
		2021-07-23	Fresh tracks
		2021-08-26	Fresh scat
		2021-10-07	Fresh tracks
		2021-10-07	Fresh tracks
		2022-05-03	Tracks
		2022-05-20	Scat
		2022-07-14	Scat

Species	S-Rank	Date	Observations
		2022-08-04	Scat
		2022-08-05	Scat
		2022-08-31	Tracks
		2022-09-09	Tracks
		2022-10-14	Fresh tracks
		2022-10-14	Fresh tracks
		2022-10-14	Fresh scat
American Black Bear (Ursus americanus)	S5	2021-04-29	Tracks
		2021-05-02	Direct observation
		2021-06-24	Fresh tracks
		2021-06-24	Fresh tracks
		2021-07-21	Appears to be pulling young cherry trees into road and feeding.
		2021-07-21	Bear scat
		2021-07-21	Bear left bite marks in Bat monitor case
		2021-07-21	Direct observation
		2021-07-21	Fresh bear scat
		2021-07-21	Direct observation
		2021-07-23	Scat
		2021-08-05	Scat
		2021-08-05	Scat
		2021-08-05	Scat
		2021-08-12	Fresh scat contained blueberries
		2021-08-24	Fresh bear scat
		2021-08-24	Fresh scat
		2021-08-26	Fresh scat
		2021-08-26	Fresh scat
		2021-08-26	Fresh scat
		2021-08-26	Fresh scat
		2021-09-11	Fresh scat
		2021-09-14	Yearling, observed on an access road
		2021-10-06	Fresh scat
		2021-10-06	Fresh scat
		2021-10-06	Fresh scat
		2022-05-31	Scat
		2022-06-01	Direct observation
		2022-06-08	Fresh scat
		2022-08-04	Fresh tracks
		2022-09-09	Fresh scat

Species	S-Rank	Date	Observations
		2022-09-22	Fresh tracks
		2022-09-22	Several scat piles in wetland
		2022-09-22	Scat
		2022-09-28	Scat
		2022-10-14	Scat
		2022-10-14	Scat
Bobcat (Lynx rufus)	S4S5	04-Aug-22	Tracks
Northern Flying Squirrel (Glaucomys sabrinus)	S5	2021-05-10	Direct observation
Fisher (Pekania pennanti)	S3	2021-05-02	Direct observation
North American Porcupine (Erethizon dorsatum)	S5	2021-05-05	Direct observation
		2021-05-28	Direct observation
Striped Skunk (Mephitis mephitis)	S5	2021-08-31	Direct observation
Snowshoe Hare (Lepus americanus)	S5	2021-06-29	Direct observation
		2021-07-21	Direct observation
		2021-07-23	Direct observation
		2022-05-20	Direct observation
		2022-05-26	Direct observation
		2022-05-21	Direct observation – brown fur
		2022-06-01	Direct observation
		2022-07-08	Direct observation
2022-09-01	Direct observation		
Northern Raccoon (Procyon lotor)	S5	2022-08-04	Tracks
Maritime Garter Snake (Thamnophis sirtalis pallidulus)	S5	2021-08-26	Direct observation
		2021-09-01	Direct observation
		2021-10-18	Direct observation
		2022-05-26	Direct observation
		2022-06-08	Direct observation of two individuals
		2022-08-03	Direct observation
2022-08-04	Direct observation		
Eastern Newt (Notophthalmus viridescens)	S5	2022-05-26	Direct observation of aquatic adult in small pond
Northern Ringneck Snake (Diadophis punctatus edwardsii)	S5	2021-06-29	Direct observation

Species	S-Rank	Date	Observations
Green Frog ( <i>Lithobates clamitans</i> )	S5	2021-06-24	Direct observation
		2021-07-21	Direct observation, many frogs
		2021-07-21	Direct observation
		2021-08-12	Direct observation
		2021-08-31	Direct observation
		2021-09-01	Direct observation
		2021-09-01	Direct observation
		2021-09-13	Direct observation
		2021-09-13	Direct observation
		2021-09-13	Direct observation
		2021-09-13	Direct observation
		2021-09-14	Direct observation
		2021-09-14	Direct observation
		2021-09-14	Direct observation
		2021-10-18	Direct observation
		2021-10-18	Direct observation
		2022-05-20	Direct observation
		2022-05-26	Direct observation – may be the source of tadpoles and egg masses
		2022-06-08	Three or four individuals calling
		2022-06-08	Direct observation of adult, tadpoles and egg masses
		2022-07-07	Direct observation
		2022-07-08	Direct observation
		2022-08-03	Direct observation of many adults
2022-08-05	Several adults in open water of wetland		
2022-08-31	Observation at two locations		
2022-09-22	Direct observation		
2022-10-14	Observation at 3 locations		
Northern Leopard Frog ( <i>Lithobates pipiens</i> )	S5	2021-06-03	Direct observation
		2021-08-12	Direct observation
		2021-08-24	Direct observation
		2021-08-31	Two Direct observations
		2021-09-21	Direct observation
		2021-09-21	Direct observation
		2021-10-04	Direct observation
		2022-05-26	Direct observation – likely the source of the unknown egg masses and tadpoles
04-Aug-22	Direct observation		



Species	S-Rank	Date	Observations
		31-Aug-22	Direct observation at three location
		01-Sep-22	Direct observation at three locations
		09-Sep-22	Direct observation
Pickerel Frog ( <i>Lithobates palustris</i> )	S5	2021-06-24	Direct observation
		2021-07-23	Direct observation
		2021-08-26	Direct observation
		2021-09-01	Direct observation
		2021-10-04	Direct observation
		2022-06-08	Direct observation of very young individual
		2022-07-08	Direct observation
Mink Frog ( <i>Lithobates septentrionalis</i> )	S5	2021-09-13	Direct observation
		2021-09-13	Direct observation
Wood Frog ( <i>Lithobates sylvaticus</i> )	S5	2021-07-21	Direct observation, tadpoles
		2021-08-12	Direct observation
		03-Aug-22	Direct observation at two locations
Spring Peeper ( <i>Pseudacris crucifer</i> )	S5	2022-05-26	Direct observation, Peeper pond
American Bullfrog ( <i>Lithobates catesbeianus</i> )	S5	2022-05-26	Direct observation
		2022-07-08	Direct observation
American Toad ( <i>Anaxyrus americanus</i> )	S5	04-Aug-22	Direct observation
Eastern Painted Turtle ( <i>Chrysemys picta picta</i> )	S4 Special Concern (SARA)	2022-05-26	Direct observation
Red-bellied Snake ( <i>Storeria occipitomaculata</i> )	S5	2022-10-14	Direct observation, 2 dead on road
Unknown Amphibian Species	-	2022-05-03	Egg masses
		2022-05-26	Egg masses
		2022-05-26	Tadpoles in two locations
		2022-07-08	Ideal amphibian breeding habitat in two locations

## Notes:

Sub-national (provincial) ranks (S-ranks) retrieved from the Atlantic Canada Conservation Data Centre (AC CDC) and are up to date as of September 2022 for the province of Nova Scotia.

S1 Critically Imperiled; S2 Imperiled; S3 Vulnerable; S4 Apparently Secure; S5 Secure.

AC CDC

### 5.3 Wildlife Species at Risk Assessment

Site-specific AC CDC reports were generated on May 10, 2022 and September 22, 2022, and included historical observations of SAR and SoCC reported within 5 km of the PDA. Due to the size of the PDA, a search of the AC CDC database was requested to include results from a radius of 10 km from the PDA centre in 2022. For information purposes, the AC CDC report included SAR and SoCC observations from 100 km from the PDA centre; therefore, it is important to note that some of wildlife species observed further from the PDA may not have suitable habitat present within the LAA. Excluding birds, bats and fish, which are reported separately, moose and eastern painted turtle were the only vertebrate fauna species with historical observations within 10 km of the centre of the PDA, as reported by the AC CDC (2022). Table 3 summarizes the historical observations of mammal and herptile SAR and SOCC within 100 km of the study area.

**Table 4: Historical Observations of SAR and SoCC within 100 km of the Study Area (AC CDC 2022)**

Species	Ranking	Number of Observations	Distance from PDA Centre
<b>Mammals</b>			
Moose <i>Alces alces Americana</i>	NS ESA: Endangered AC CDC: S1	40	1.8 ± 0.0 km
Canada lynx <i>Lynx canadensis</i>	NS ESA: Endangered AC CDC: S2S3	7	70.1 ± 1.0 km
Long-tailed shrew <i>Sorex dispar</i>	AC CDC: S2	2	38.3 ± 0.0 km
Southern flying squirrel <i>Glaucomys volans</i>	AC CDC: S3S4	10	11.7 ± 0.0 km
American marten <i>Martes americana</i>	NS ESA: Endangered AC CDC: S2S3	16	74.3 ± 0.0 km
Maritime shrew <i>Sorex maritimensis</i>	AC CDC: S3	1	89.5 ± 0.0 km
Southern bog lemming <i>Synaptomys cooperi</i>	AC CDC: S3	9	38.3 ± 0.0 km
Fisher <i>Pekania pennanti</i>	AC CDC: S3	12	13.1 ± 0.0 km
<b>Herptiles</b>			
Wood turtle <i>Glyptemys insculpta</i>	COSEWIC: Threatened SARA: Threatened NS ESA: Threatened AC CDC: S2	1727	15.2 ± 5.0 km

Species	Ranking	Number of Observations	Distance from PDA Centre
Snapping turtle <i>Chelydra serpentina</i>	COSEWIC: Special Concern SARA: Special Concern NS ESA: Vulnerable AC CDC: S3	525	10.3 ± 0.0
Eastern painted turtle <i>Chrysemys picta</i>	SARA: Special Concern COSEWIC: Special Concern AC CDC: S4	748	5.7 ± 0.0 km
Blanding's Turtle – Nova Scotia Population <i>Emydoidea blandingii</i>	COSEWIC: Endangered SARA: Endangered NS ESA: Endangered AC CDC: S1	10,054	52.3 ± 0.0 km
Four-toed Salamander <i>Hemidactylium scutatum</i>	SARA: Not listed COSEWIC: Not at Risk AC CDC: S3	47	18.0 ± 0.0
Eastern Ribbonsnake – Atlantic Population <i>Thamnophis sauritus</i> pop. 3	COSEWIC: Threatened SARA: Threatened NS ESA: Threatened AC CDC: S2S3	2034	57.2 ± 0.0

## Notes:

Sub-national (provincial) ranks (S-ranks) retrieved from the Atlantic Canada Conservation Data Centre (AC CDC) and are up to date as of September 2022 for the province of Nova Scotia.

S1 Critically Imperiled; S2 Imperiled; S3 Vulnerable; S4 Apparently Secure; S5 Secure.

During the field biophysical surveys conducted throughout 2021 and 2022, one herptile SAR and one mammal SoCC were documented within the LAA. An eastern painted turtle (*Chrysemys picta picta*), was observed in an isolated pond adjacent to an access road in May 2022. Eastern painted turtles are listed as special concern under the SARA and COSEWIC and ranked by the AC CDC as S4 as apparently secure in Nova Scotia. During their active season, eastern painted turtles typically occupy slow moving, relatively shallow, and well-vegetated wetlands and water bodies with abundant basking sites and organic substrate (Ernst and Lovich 2009) and are known to be semi-tolerant of human-altered landscapes (COSEWIC 2018). Painted Turtles nest in areas with an open canopy (e.g., shorelines of lakes and wetlands) and they overwinter in wetlands and the shallow bays of lakes (Ernst and Lovich 2009).

A fisher was observed in May 2021 from one of the existing forestry access roads within the LAA. Fishers are native to North American and prefer forested habitats. The AC CDC considers the fisher population to be vulnerable within Nova Scotia.

## 5.4

## Summary of Results

Based on the results of the terrestrial wildlife observations completed in 2021 and 2022, all populations of wildlife found within the PDA are secure according to the AC CDC (2022); however, the eastern painted turtle is listed as Special Concern under the federal SARA, and the fisher is ranked as S3 by the AC CDC. Observations of mammal and herptile species encountered during field studies only included species that are considered to be native to Nova Scotia and no invasive wildlife species were encountered.

To minimize the potential impact of the Project on existing landscapes and undisturbed wildlife habitat, approximately 34% of the proposed locations for the WTGs and associated infrastructure were selected because they have been previously cut through forestry activities and have an existing network of forestry access roads. The Project aims to benefit the site by providing an environmentally friendly and productive source of renewable energy for Nova Scotia while limiting potential impacts to the natural environment and the disturbance of environmental features.

## 6.0 Effects Assessment and Mitigation Recommendations

The following discussion includes the potential impacts of the Project to wildlife and wildlife habitat, proposed mitigation measures, as well as potential residual and cumulative impacts of the Project to wildlife and wildlife habitat.

### 6.1 Identification of Project Interactions

Wildlife and wildlife activity were assessed over two years, as discussed above in Section 5. The identification of anticipated potential interactions between the Project and wildlife and wildlife habitat is presented below.

#### 6.1.1 Approach to Project Components

The Project has three main phases, during each of which the potential interactions with the surrounding environment are considered distinct. Unplanned events are considered separately from the phases.

The phases of the Project include:

1. Planning, Site Preparation and Construction Phase;
2. Operation Phase; and,
3. Decommissioning Phase.

The Project interaction matrix in Table 5 is used as an initial screening to assist in determining if it is possible that there could be an interaction between the activities being carried out in each phase of the Project and wildlife and their habitats.

**Table 5: Project Interactions with Environmental Components**

Valued Environmental Component	Project Phases			
	Planning, Site Preparation and Construction Phase	Operation Phase	Decommissioning Phase	Unplanned Events
Wildlife and Wildlife Habitat	✓	✓	✓	✓

Legend: ✓ = Potential interaction identified

Those Project phases for which a checkmark is provided indicate that the phase may interact with wildlife, and thus an environmental effects assessment is warranted. In this case, it is possible that

interactions could occur during each phase of the Project, as well as due to unplanned events (e.g., accidents, malfunctions and severe weather), which are discussed below.

### 6.1.2 Identification of Potential Environmental Effects

Without mitigation, the Project has the potential to cause a minor reduction of some wildlife habitat due to linear infrastructure and turbine foundations. While the construction and decommissioning phases present potential for negative impact, impacts are reversible once the decommissioning phase has started and land reclamation activities restore the Project site to its previous state. Without mitigation, the Project is anticipated to interact with wildlife and their habitats and cause environmental effects in the following ways:

- Temporary disturbance, or displacement from surrounding habitat, during Project construction and decommissioning activities due to increased human presence, noise and anthropogenic footprint;
- Loss of habitat due to project infrastructure and crane pads during construction, operation, and decommissioning; and,
- Temporary disturbance of foraging and basking behaviour for turtles due to increased human presence and noise within the Project footprint.

### 6.1.3 Standard Mitigation of Potential Environmental Effects

Standard mitigation has been identified for the anticipated interaction and/or effect in relation to wildlife and wildlife habitat in an attempt to prevent the interaction from occurring if possible, or to reduce the magnitude, geographic extent, frequency, duration, reversibility, or ecological/socioeconomic context of the interaction. Best management practices (based on industry guidelines and regulatory guidance documents) have been proposed as mitigation measures. In addition, several acts, codes, regulations and guidelines may require appropriate actions be conducted as mitigation measures prior to or during the interaction.

The federal and provincial legislation and codes that could apply to the Project include (but may not be limited to):

- *Canadian Environmental Protection Act* and regulations (ECCC 1999);
- *Species at Risk Act* (ECCC 2002);
- *Transportation of Dangerous Goods Act*, and regulations (TC 1992);
- *Nova Scotia Environment Act* and regulations (NSG 1994-95);
- *Nova Scotia Water Resources Protection Act*, and regulations (NSG 2000);
- *Nova Scotia Endangered Species Act*, and regulations (NSG 1998a);
- *Nova Scotia Wilderness Areas Protection Act* (NSG 1998b), and regulations; and,
- Contingency Planning Guidelines (NSECC 2021).

To further reduce the likelihood of interactions between any phase of the Project and wildlife, the mitigation measures, summarized below in Table 6 will be followed.

**Table 6: Potential Interactions and Proposed Mitigation for Wildlife**

Potential Interactions with Wildlife	Proposed Mitigation Measures
<p>Short-term, reversible disturbance of foraging fauna and loss of breeding and foraging habitat during construction and decommissioning due to increased human presence, noise and anthropogenic footprint</p>	<ol style="list-style-type: none"> <li>1. Vegetation will be retained where possible to maintain wildlife habitat;</li> <li>2. The Project footprint will be limited to that which is necessary to enable the Project to be carried out;</li> <li>3. Existing roads and trails will be utilized to limit disturbance outside the Project footprint and minimize the interactions with wildlife and wildlife habitat;</li> <li>4. The site and working areas will be kept clean of food scraps, and garbage will be removed from the site frequently to minimize wildlife encounters;</li> <li>5. In the case of wildlife encounters, the following will be implemented: (1) no attempt will be made by any worker at the Project site to chase, catch, divert, follow or otherwise harass wildlife by vehicle or on foot; (2) equipment and vehicles will yield the right-of-way to wildlife; and (3) if a SAR is encountered during activities, work around the SAR shall cease until a biologist is dispatched to assess the situation and appropriate mitigation is applied;</li> <li>6. To minimize disruptions with wildlife activity at night, the Project construction activities will be limited to daylight hours when possible;</li> <li>7. Equipment shall be kept in good working order and maintained to minimize noise disturbances;</li> <li>8. To minimize impacts to wildlife use of watercourses and movement in corridors, construction activities within 30m of a watercourse will be limited where feasible;</li> <li>9. All workers will adhere to the provincial Nova Scotia <i>Endangered Species Act</i> and federal <i>Species at Risk Acts</i>;</li> <li>10. Erosion and sediment control measures will be installed and checked regularly during the construction phase and prior to, and after, storm events to confirm they are continuing to operate properly to minimize potential effects to adjacent habitat; and</li> <li>11. Reduced speeds, dust suppression, and noise and lighting restrictions will be implemented to minimize disturbance to Moose and other wildlife in the PDA.</li> </ol>

Potential Interactions with Wildlife	Proposed Mitigation Measures
	<p><u>Mitigation measures for unplanned events</u></p> <ol style="list-style-type: none"> <li>1. Equipment shall be kept in good working order and maintained so as to reduce risk of spills/leaks and to avoid water contamination;</li> <li>2. Spill response kits must be readily available for each piece of equipment, on site workers are required be knowledgeable on emergency spill response protocols and initiate corrective measures immediately to minimise any impacts to the surrounding environment;</li> <li>3. Where applicable, secondary containment and limited quantities of chemicals and fuels required to be store on site shall be in an area away from the surrounding terrestrial environment, or direct pathways (i.e., ditches) to the surrounding environment, all chemicals and fuels will be stored in appropriate containers designed for the reduction of potential spills or leaks;</li> <li>4. Refueling, oiling, and maintenance of equipment will be completed in specifically designated areas located at least 30 m away from any watercourse, wetland, or well to minimize potential effects that could arise in the event of a spill;</li> <li>5. If contaminated soil is encountered, it will be reported to NSE and managed utilizing the Nova Scotia Contaminated Site Regulations; and,</li> <li>6. Work entailing use of toxic or hazardous materials, chemicals, or otherwise creating hazard to life, safety of health, will be conducted in accordance with National Fire Code of Canada to minimize the potential for spills or fires.</li> </ol>
<p>Short-term, reversible loss and fragmentation of potential wildlife habitat during <u>construction</u> and <u>decommissioning</u> due to linear infrastructure and crane pads.</p> <p>Long-term, reversible loss and fragmentation of potential wildlife habitat during <u>operations</u> due to linear infrastructure.</p>	<ol style="list-style-type: none"> <li>1. Control measures to manage and prevent the spread of invasive plant species will be applied to each phase of the Project;</li> <li>2. Glyphosate will not be used in vegetation management for the Project;</li> <li>3. Following the construction and decommissioning phases of the Project, revegetation with native species will be promoted in consultation with the landowner;</li> <li>4. Vegetation will be retained where possible to maintain wildlife habitat;</li> </ol>



Potential Interactions with Wildlife	Proposed Mitigation Measures
	<ol style="list-style-type: none"> <li>5. The Project footprint will be limited to that which is necessary to enable the Project to be carried out;</li> <li>6. Existing roads and trails will be utilized to limit disturbance outside the Project footprint and minimize the interactions with wildlife and wildlife habitat; and,</li> <li>7. Decommissioning/reclamation activities following the Project will be undertaken to improve interconnections between landscapes in the PDA.</li> </ol>

## 6.2 Residual Environmental Effects

A residual environmental effect is an environmental effect of a project that remains, or is predicted to remain, after mitigation measures have been implemented (GOC 2022). The effects of the Project activities on terrestrial wildlife are expected to be limited to only the Project footprint. Disturbance of fauna habitat as a result of the Project will be minimized through the proposed mitigation measures listed above and through turbine and infrastructure siting. Noise associated with the construction may deter wildlife, but potential effects are expected to be short term. With the proposed mitigations, residual interactions of the Project with terrestrial fauna species are anticipated to be short in duration and non-substantive, as they are already occurring in an area with ongoing anthropogenic activities including, but not limited to, recreation and forestry.

In consideration of the above and planned mitigation, the residual environmental effects of the Project on terrestrial wildlife (excluding birds and bats, which are evaluated in their separate reports) is predicted to be negligible in terms of the significance of the environmental effect. A significant environmental effect would result if a considerable change to wildlife populations such as a decline in abundance and/or a change in distribution, beyond which natural recruitment (i.e., reproduction and immigration from unaffected areas) would not return the population to its former level within several generations. No follow-up or monitoring is proposed to monitor environmental interactions with wildlife and wildlife habitats, unless required under permit from NSECC.

## 6.3 Cumulative Environmental Effects

Cumulative effects are changes to the environment that are caused by an action in combination with other past, present and future human actions (GOC 2022). Specific to the nature of the undertaking, cumulative effects are combined impacts that may occur when wind power projects or other types of projects are located in the same region (NSECC 2021). Nearby wind energy projects include the South Canoe Lake Wind Energy Project, the Martock Ridge Wind Project and the Ellershouse Wind Project.

The South Canoe Lake Wind Energy Project consists of 34 turbines, located approximately 8 km south-southwest of the Project. The Martock Ridge Wind Project (3 turbines) and the Ellershouse Wind Project (10 turbines) are located 8.6 km and 16 km east-northeast of the Project, respectively. The distances between these projects and the Project (i.e. outside of the LAAs for all VECs) suggests the potential for interaction between the residual effects of the combined projects is low. Regional population-wide effects due to the individual residual effects of each project could occur. However, population level impacts are unlikely, provided that highly sensitive or rare habitats, as well as concentration areas for species at risk, have been avoided by this Project.

The Project is located in an area with ongoing agricultural and forestry land uses, including the following anthropogenic activities and developments:

- Public roads including highways;
- Roads for forestry activities; and,
- All-Terrain Vehicle (ATV) and snowmobile trails.

The anticipated cumulative effects to wildlife and wildlife habitats are anticipated to be low. By following the Adaptive Management Plan and through engagement of regulatory authorities regional population-wide effects due to the cumulative residual effects of each existing land uses are considered unlikely. In order to further mitigate risk to wildlife habitats during the Project phases, there will be a concerted effort to use existing corridors found on site, to limit over story removal, and vegetation management.

## 7.0

## Summary and Conclusions

The information provided in this document is based on the current available design/planning information and existing environment information obtained during focused field surveys conducted throughout 2021 and 2022. Based on the results of the desktop and field surveys for wildlife, it was concluded that many of the wildlife species observed are generalists and will continue to populate the area post-construction.

This report has been prepared for the EA and associated Addendum of the Benjamins Mill Wind Project. The Project is expected to provide renewable electricity to Nova Scotia and support Nova Scotia Power in attaining their renewable energy targets.

The Project site was selected due to the existing mixed anthropogenic land uses and historical anthropogenic impacts in these areas, in order to minimize impacts to undeveloped lands to the extent feasible. In order to further mitigate risk to terrestrial wildlife during the Project phases, there will be a concerted effort to use existing corridors found on site and to limit vegetation removal. Though there will be interactions between Project activities and terrestrial wildlife, by implementing the proposed mitigation measures, impacts to mammal and herptile populations are expected to be minimal. Based on a consideration of the current conditions and anticipated residual effects, no monitoring programs are currently recommended for wildlife and wildlife habitat.

## 8.0

## Closure

This report was prepared by Dillon Consulting Limited (Dillon) for Natural Forces Developments Limited Partnership (the Proponent) on behalf of the Benjamins Mill Wind Limited Partnership, in support of the Benjamins Mill Wind Project Addendum (2022). Dillon has used the degree of care and skill ordinarily exercised under similar circumstances at the time the work was performed by reputable members of the environmental consulting profession practicing in Canada. Dillon assumes no responsibility for conditions which were beyond its scope of work. There is no warranty expressed or implied by Dillon.

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## 9.0

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# Appendix A

## *Photographs*

<p>American Black Bear</p> 	<p>Eastern Coyote</p> 	<p>White-tailed Deer</p> 
<p>Scat July 19, 2021</p>	<p>Scat September 29, 2021</p>	<p>Tracks May 14, 2021</p>
<p>Red Fox</p>	<p>American Beaver</p>	<p>Common Garter Snake</p>
		
<p>Scat May 14, 2021</p>	<p>Small old dam October 5, 2021</p>	<p>Direct observation June 28, 2021</p>



American Toad	Tadpoles	Peeper Pond
 <p data-bbox="337 762 560 827">Direct observation May 26, 2022</p>	 <p data-bbox="748 762 971 827">Direct observation May 26, 2022</p>	 <p data-bbox="1190 657 1357 688">May 26, 2022</p>
 <p data-bbox="362 1396 529 1461">Scat May 31, 2022</p>	 <p data-bbox="776 1396 943 1428">May 31, 2022</p>	 <p data-bbox="1198 1396 1341 1428">July 8, 2022</p>

<p>Ideal Amphibian Habitat</p>  <p>July 8, 2022</p>	<p>Green Frog</p>  <p>Multiple in pond August 3, 2022</p>	<p>American Toad</p>  <p>Direct observation August 4, 2022</p>
<p>Bobcat</p>  <p>Tracks August 4, 2022</p>	<p>Maritime Garter Snake</p>  <p>Direct observation August 4, 2022</p>	<p>Northern Raccoon</p>  <p>Track August 4, 2022</p>

<p>Pickerel Frog</p>  <p>Direct observation August 4, 2022</p>	<p>White-tailed Deer</p>  <p>Scat August 4, 2022</p>	<p>Green Frog</p>  <p>Direct observation August 31, 2022</p>
<p>Northern Leopard Frog</p>  <p>Direct observation August 31, 2022</p>	<p>White-tailed Deer</p>  <p>Track August 31, 2022</p>	<p>American Black Bear</p>  <p>Track September 9, 2022</p>