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NATURAL FORCES DEVELOPMENTS LP

Vegetation and Lichen Appendix 2021-2022

Westchester Wind Project





December 13, 2022

Natural Forces Developments LP
Westchester Wind Project
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Attention: Megan MacIsaac

Vegetation and Lichen Appendix: 2021-2022 Vegetation and Lichen Assessments for the Westchester Wind Project

Dillon Consulting Limited (Dillon) is pleased to provide you with the final report for the vegetation and lichen assessments for the studies conducted as part of the environmental assessment for the Westchester 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", is written over the printed name.

Kelly Regan, M.Sc.
Project Manager, Associate

KSR:jb
Enclosure

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Introduction

Dillon Consulting Ltd. (Dillon) was retained by Natural Forces Developments Limited Partnership (the Proponent) on behalf of the Westchester 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 Westchester Wind Project (the Project). The Project is being developed and will be owned and operated by the Westchester 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 Westchester Wind Limited Partnership for many aspects of Project development.












The Project consists of up to 12 wind turbine generators (WTGs) capable of producing up to 50 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 on a mixture of privately-owned blueberry fields, previously forested land and undeveloped forested land in Cumberland County near the communities of Westchester Station, Rose, and Londonderry.

The proposed Project is located in an area where vegetation and lichen are present. Vegetation and lichens are considered important features and valued environmental components (VECs) because they are valued in their relationship with other wildlife and wildlife habitat, including 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 vegetation and lichen, and includes: a brief overview of the proposed Project; a description of the scope and methodology used for the vegetation and lichen surveys; a summary of the survey results; and, an assessment of residual effects (including potential interactions and mitigation) of the proposed Project on vegetation and lichens.

PROJECT LOCATION AND SITE LAYOUT

FIGURE 1

-  Proposed Turbine Location
-  Proposed Substation Location
-  Property Lines
-  Roads to be Upgraded
-  Proposed Access Roads
-  Proposed Collector Network
-  Proposed Interconnection Line
-  Transmission Line
-  Highway
-  Watercourse
-  Waterbody

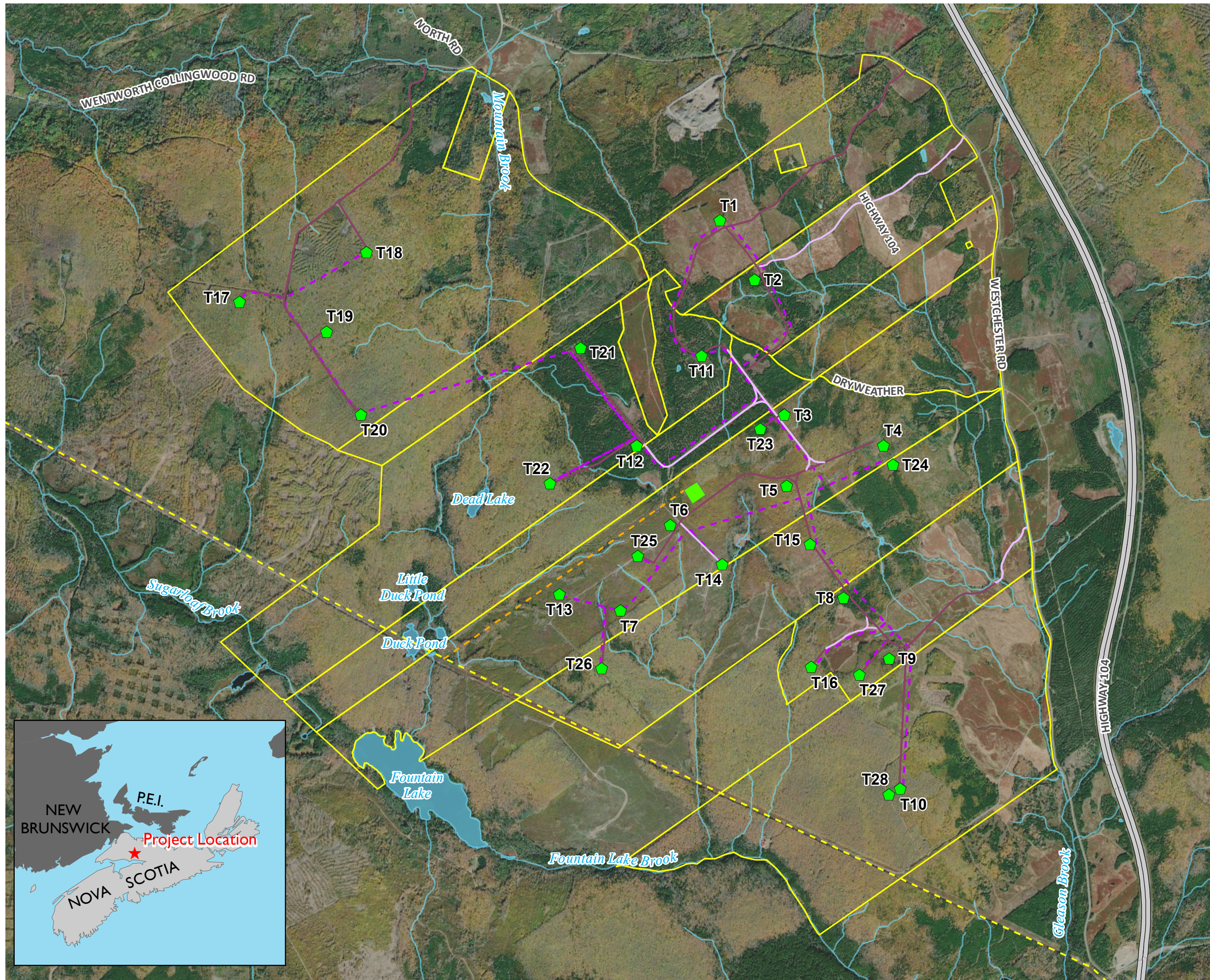


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PROJECT: 21-1329
STATUS: DRAFT
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Background

The Project is located on a mixture of privately-owned blueberry fields, previously forested land and undeveloped forested land in Cumberland County near the communities of Westchester Station, Rose, and Londonderry (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 wind turbine generators (WTGs) are proposed to be located in areas of highly fragmented habitat, due to previous forestry activities and agriculture. The Project will 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.

The Project is located in the greater ecological region known as the Nova Scotia Uplands – Cobequid Hills ecodistrict (Unit 340) and is characterized as late successional Acadian shade tolerant hardwood forests (Neily et al. 2017). At higher elevations within this ecodistrict, softwood stands occur on moist, level terrain, with shade tolerant mixedwood forests found along steep-sided ravines (Neily et al. 2017). Locally, the site consists of only one ecoelement: the Tolerant Hardwood Hills (NSDLF 2019). Sugar maple, yellow birch, and beech are the most common species of this ecoelement and have the greatest growth potential on the well-drained, rich, sheltered lower slopes. It should be noted that beginning in the early 1800s, large areas of tolerant hardwood forests were cleared for farmland in the Cobequid Hills (CRM 2022). Where this farmland has been abandoned, fields naturally reforested to stands of white spruce. However, much of this old field forest has since been harvested and converted to wild blueberry production or re-planted with softwood species (Neily et. al. 2017).

Vegetation and lichen consider vegetation communities and habitats that support species at risk, wildlife, plants, and lichens. The vegetation components of terrestrial habitats include plant and lichen species within the assessed area. Vegetation and lichens were selected as valued environmental components (VECs) because of their relationship with species at risk, migratory birds, bats, and other biological and physical components.

Purpose and Objectives of the Report

This report provides a summary of the vegetation and lichen surveys that were conducted as part of the biophysical surveys undertaken in support of the Project EA registration. The report includes:

- Brief description of the Project;
- Description of the scope and methodology used for the survey;
- Summary of the approach used to evaluate the data;
- Results of the desktop and field assessments;
- Proposed mitigation based on industry best practice and experience; and
- An assessment of residual effects (including potential interactions and mitigation) of the proposed Project on vegetation and lichens.

Project Description

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

The Project is located on Westchester Mountain in Cumberland County. The Project is proposed to have an installed capacity of up to 50 MW, amounting to up to 12 wind turbine generators (WTGs) and associated infrastructure, including a substation and overhead transmission line.

The Project will be located predominantly on privately owned lands used for blueberry farming, forestry, maple groves, and recreation (i.e. snowmobile trails). An easement will be required over a 300 m stretch of crown land along an existing access road. The forestry activities include previously forested land at varying stages of regeneration, as well as undeveloped forested lands owned by forestry companies. In addition, the Project site met crucial factors that determined suitability, which included 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 a localized renewable energy generation (Renewable Electricity Regulations 2021).

Scope of Work

Vegetation and lichens were selected as a VEC because of their relationship with wildlife and wildlife habitat, species at risk, and other biological and physical components addressed as VECs in this EA. In addition, plant species at risk (SAR) are protected under federal and provincial legislation pursuant to the federal *Species at Risk Act* (SARA) and the *Nova Scotia Endangered Species Act* (NSESA). SAR and other rare plant species are considered valued, including species of conservation concern (SoCC) as identified as “extremely rare” (S1), “rare” (S2) or “uncommon” (S3), if they are present (AC CDC 2022).

To better understand the types and quality of habitat in the area of the Project, a baseline study of vegetation, lichens, and terrestrial habitats was conducted for the proposed Project over two years (2021 and 2022).

The scope of work for the vegetation and lichen surveys is based upon an understanding of the nature of the proposed Project and Project area, as well as the field biologists’ experience in assessing similar landscapes. The scope of work also considered feedback from the regulatory consultation process and guidance provided through the “Guide to Preparing an EA Registration Document for Wind Power Projects in Nova Scotia” (NSE 2021). The following scope of work included two years of data collection and was completed as part of the vegetation and lichen surveys for the Project:

- An initial desktop assessment of habitats within the Local Assessment Area (LAA);
- A desktop assessment of vegetation and lichen SAR and SoCC with the potential to occur within the Potential Development Area (PDA);
- A survey of vegetation species present within the LAA by terrestrial habitat type, along with their AC CDC sub-national rarity ranking (i.e., S-Rank), that have the potential to be affected by the Project’s activities;
- A survey of lichens present within the LAA by terrestrial habitat type, along with their regional rarity ranking, that have the potential to be affected by the Project activities;
- A survey of vegetation of cultural or traditional importance from a Mi’kmaq knowledge/use perspective that have the potential to occur in the Project site, as identified by a terrestrial biologist from Maqamigew Anqotumeg.
- Incidental observations of vegetation, including SAR, SoCC, and invasive species documented during the 2021 and 2022 biophysical field surveys.

3.1 Spatial Boundaries








For the purpose of the vegetation and lichen surveys conducted as part of the biophysical baseline for the Project, the spatial boundaries included the PDA, the study area and the LAA (Table 1, Figure 2). The LAA, which is described below in Table 1, encompasses the terrestrial habitats located adjacent to the PDA for the assessment of vegetation and lichen species 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 terrestrial habitats.

Table 1: Spatial Boundaries for the Assessment of Vegetation and Lichens

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. However, the Project would consist of up to 12 of those locations and their associated infrastructure.
Study Area	The GPS tracks of meander and transect-based search 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.
Local Assessment Area	Area includes a 50 m buffer on either side of roads required to access turbine sites during construction and operation and along powerline easements as well as a 150 m around turbine bases, substations and ancillary equipment.	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).

WESTCHESTER WIND PROJECT

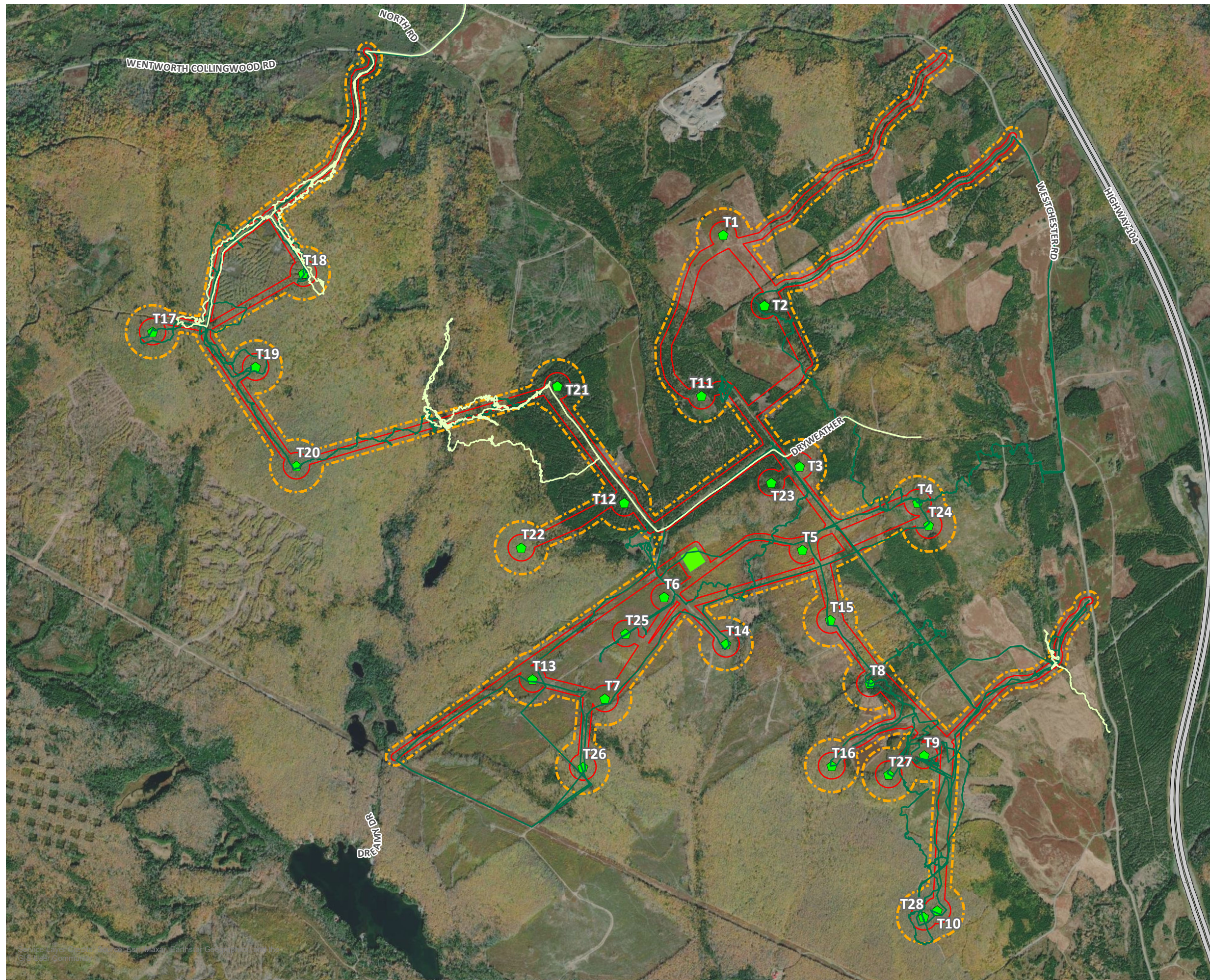
STUDY AREA AND LOCAL ASSESSMENT AREA FOR VEGETATION AND LICHENS
FIGURE 2

-  Proposed Turbine Location
-  Proposed Substation Location
-  Potential Development Area (PDA)
-  Local Assessment Area
-  Highway
-  Plant Survey Tracks
-  Lichen Survey Tracks



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4.0 Methods

4.1 Desktop Habitat Assessment

Prior to completing the field assessments for vegetation and lichens, Dillon conducted a desktop review to evaluate the potential for vegetation and lichen species within the LAA and to assist in scoping the field program. The information was reviewed, along with information on habitats present in the general area of the Project to determine potential for at risk flora species and/or their critical habitat. Dillon completed a review of available resources prior to completing the field surveys, which included the following:

- Data from 2021 and 2022 Atlantic Canada Conservation Data Centre (AC CDCC) reports;
- Publicly available GIS map layers (e.g., ecological land classification, forest and non-forest inventory, wetland inventory, Protected Natural Areas, Wildlife Management Zones); and
- Google Earth satellite imagery.

Available mapping through the Nova Scotia Department of Natural Resources and Renewables (NSDNRR) was reviewed to identify forest types, general land use, and habitats within the LAA. 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 calculate the area of potential disturbance within each type.

4.2 Field Assessments

Field vegetation assessments were completed in 2021 and 2022 to identify and target the major habitat types within the vegetation LAA. Representative areas of the redesigned Project layout were surveyed for vegetation and lichens in 2022. Vegetation and lichen surveys consisted of random meander searches through major habitat types by biologists skilled at vegetation and lichen identification. Observations of vegetation and lichen SAR and SoCC were reported on an incidental basis in concert with other targeted field surveys (i.e., wetlands, watercourses, and wildlife and wildlife habitat) throughout the growing season (e.g., June – September) in both 2021 and 2022.

4.2.1 Vegetation Assessment

Dedicated plant surveys were conducted in July, 2021 and between April and August, 2022 by experienced plant identification specialists, as summarized in Table 2. GPS locations and tracks of the random meander paths of the plant specialists were recorded and are presented on Figure 2. At the discretion of the professionals conducting the plant and lichen assessments, the search areas were expanded beyond the LAA boundary to incorporate adjacent suitable vegetation or lichen habitat or for ease of access between segments of the LAA. Additionally, terrestrial habitats and observations of rare

vegetation were reported on an incidental basis in concert with other targeted field surveys (i.e., wetlands, watercourses, and wildlife and wildlife habitat) throughout 2021 and 2022.

Table 2: Summary of Dedicated Plant Field Surveys

Date	Surveyed Area	Survey Lead
July 27-28, 2021	Spruce plantation Hardwood forest Mixedwood forest Wetlands Sugar maple grove	C. Pepper
May 5, 2022	Commercially thinned hardwoods	C. Kennedy
July 13-14, 2022	Commercially thinned hardwoods Mountain Brook/Hemlock ravine Spruce plantation Road-side plants near Rose	C. Kennedy
July 26-29, 2022	Plant Track 2 (Upstream) Plant Track 3 (Downstream) Open hardwood forest (near Rose) Wetland 2 Wetland 6	C. Pepper
August 10, 2022	Fields Forests Wetlands	D. Cormier

4.2.2 Lichen Assessment

Targeted terrestrial lichen surveys were conducted in areas with available epiphytic lichen habitat (e.g., forested wetlands with mature trees and upland habitats with mature hardwood trees) between April 27 and May 5, 2021, and in August 2022 by a NSDNRR approved specialist at Dillon experienced with lichen identification. An additional lichen search was conducted in November 2022 for high priority sites for lichens near the PDA when visibility is increased due to fern die back and falling of deciduous leaves.

Eastern waterfan (*Peltigera hydrothyria*), a SAR lichen, was identified at two locations within Gleason Brook during 2021 aquatic habitat field surveys. Targeted area searches of brooks that flow through forested upland and have a rock bottom were conducted in July 2022 and October 2022. Gleason Brook and Mountain Brook were identified as having the potential to support eastern waterfan within the PDA. As such, 50 m upstream and 100 m downstream of proposed crossings with the PDA shown above on Figure 2, were surveyed in July 2022 and October 2022 when the watercourses were at a relatively low stage by a lichen specialist.

Similar to the vegetation surveys, GPS locations of the random meander paths of the lichen specialists were tracked throughout the dedicated surveys. Additionally, terrestrial habitats and observations of rare lichens were reported on an incidental basis in concert with other targeted field surveys (i.e., wetlands, watercourses, and wildlife and wildlife habitat) throughout 2021 and 2022.

4.3 Vegetation Species at Risk Assessment

The proposed PDA will span several landscapes and include areas that have the potential for vegetation SAR and SoCC. For the vegetation and lichen assessment, as with the other biophysical surveys conducted for the Project's 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), NSESA, or the federal 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., species with AC CDC S-ranks of S1: Critically imperilled in province; S2: Imperilled in province; and S3: Vulnerable in province of Nova Scotia).

To evaluate the potential for vegetation SAR and SoCC within 5 km of the PDA, Dillon completed a review of the following sources and data lists for the purpose of characterizing existing conditions at the Project site:

- A custom AC CDC report (AC CDC 2021, 2022);
- The federal SAR registry (GoC 2022);
- The provincial Endangered Species registry (NSDNRR 2022);
- Publicly-available governmental Geographic Information Systems (GIS) map layers and databases; and
- Nova Scotia Provincial Landscape Viewer mapping resource.

Site-specific AC CDC reports were generated on May 7, 2021 and September 20, 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.

Assessment of Culturally Significant Vegetation

A non-exhaustive vegetation list of cultural importance for the Mi'kmaq bands in Nova Scotia was prepared by a terrestrial biologist from Maqamigew Anqotumeg. The list was established following a desktop analysis of the site and includes vegetation species that are culturally significant to the Mi'kmaq bands in Nova Scotia and are likely present within the terrestrial LAA of the proposed Project. The plant list compiled from surveys conducted in 2021 and 2022 was cross-referenced with this assessment to identify plants of cultural importance that are present within the PDA.

Although the Proponent was supportive of engaging an Indigenous monitor to complete a site walk-over to identify any culturally-significant vegetation species that could be impacted by the Project, one could not be identified due to timing constraints and COVID-19 health and safety considerations.

5.0 Results

During the vegetation and lichen surveys, a total of 354 species were observed and include 308 vascular plants and 46 lichen species. The desktop and field results of these surveys are described below.

5.1 Desktop Habitat Assessment

Available mapping through the NSDNRR was reviewed to identify forest types, general land use, and habitats within the LAA and are shown on Figure 3. The area and percentage covered by each habitat or land use type within the PDA were determined and are listed in Table 3. This data is based on available mapping and Google Satellite imagery.

Approximately 38% of the PDA is located within areas that have been previously disturbed by forestry, agriculture, recreational trails and access roads, the remaining 62% of the PDA will be developed within existing forest habitat, as summarized in Table 2. It is noted that the PDA was conservatively define (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.).










Table 3: Habitats within the Potential Development Area

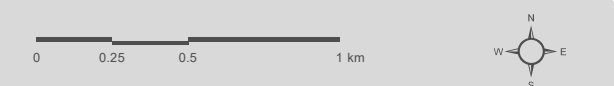
Habitat	Area within the PDA (ha) ¹	Percentage of the PDA ²
Softwood Forest	53	31%
Mixedwood Forest	20	11%
Hardwood Forest	34	20%
Total Non-Disturbed Areas³	107	62%
Recently Cut Areas or Regenerating Wood Lot	30	17%
Agriculture (Including Blueberry Fields)	26	15%
Powerline and Access Road Corridors	11	6%
Total Area with Anthropological Disturbance	66	38%

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. However, the Project would consist of up to 12 of those locations and their associated infrastructure.
3. Non-disturbed habitats include treated and un-cut forestry stands and plantations

VEGETATION AND LICHEN HABITAT ASSESSMENT
FIGURE 3

-  Proposed Turbine Location
-  Proposed Substation
-  Potential Development Area (PDA)
-  Local Assessment
-  Highway
-  Watercourse
-  Waterbody
-  Wetland
- Habitat Type**
-  Softwood - Dominant Forest
-  Mixedwood - Dominant Forest (including managed sugarbush forest)
-  Hardwood - Dominant Forest
- Anthropologic Land Use Type**
-  Recently Cut Area or Regenerating Woodlot
-  Agricultural Field
-  Blueberry Field



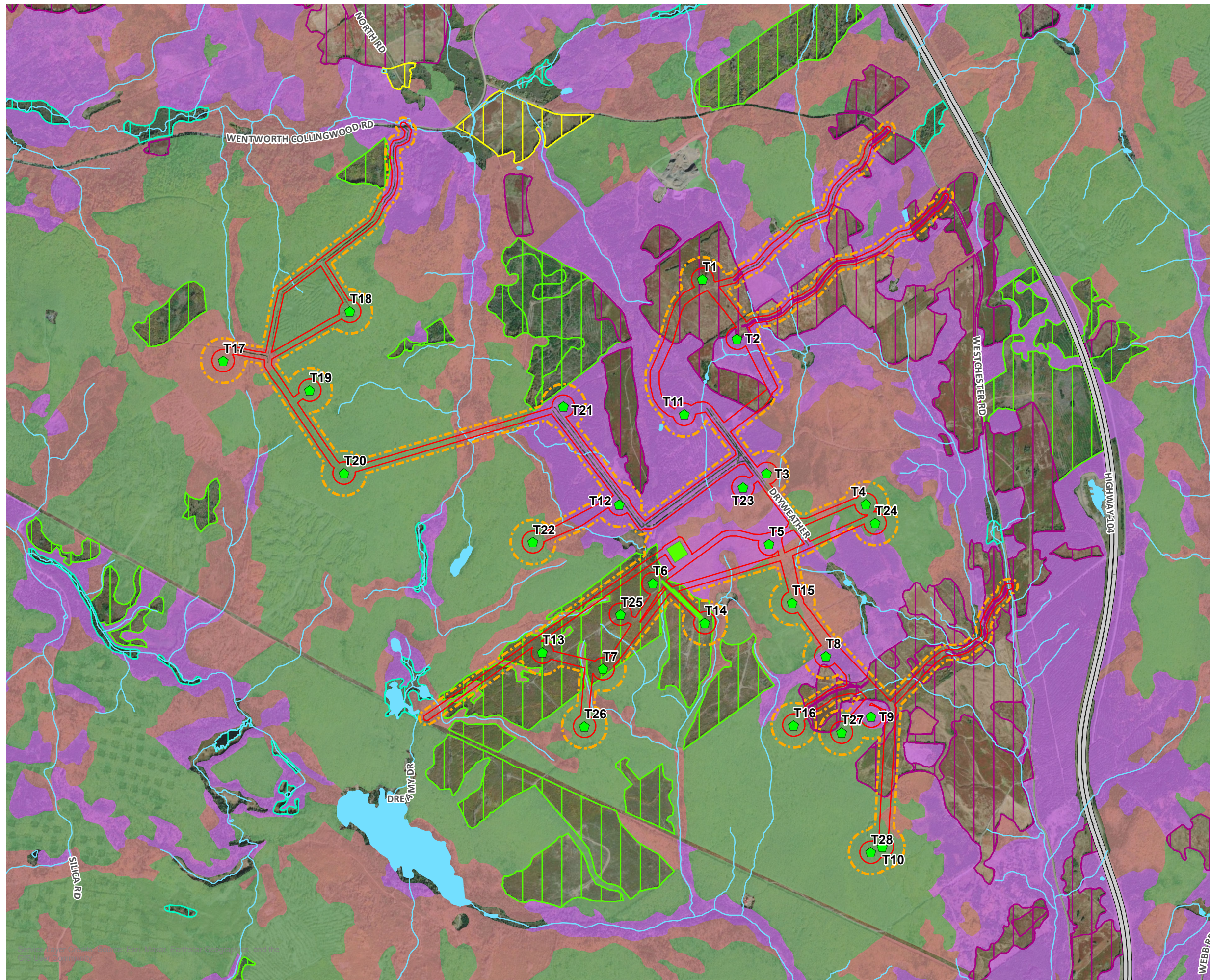
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PROJECT: 21-1329
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5.2 Field Assessments

5.2.1 Plant Surveys

Plant communities were inventoried in the field by Dillon biologists skilled in the identification of common and rare plant species of Nova Scotia. The vascular plant inventory for the LAA was completed during the site visits during the growing seasons of 2021 and 2022. Additionally, a characterization of land cover was derived from the field inventories and then further refined during the compilation of plant species lists. Over 300 plant species were identified during the 2021 and 2022 field surveys, and are compiled in Appendix A. The general vegetation within each habitat type is described as follows:

Hardwood-dominant Forest

Hardwood forests are characterized by temperate trees and understory flora, high species richness, diverse stand structures, and by generally rich and well drained soils (NSDLF 2021). The hardwood forest habitat encountered during the 2021 and 2022 vegetation surveys was dominated by maples and included a diverse understory of mostly herbaceous plants. American beech (*Fagus grandifolia*) and small round-leaved orchid (*Platanthera orbiculata*) were identified within hardwood forests within the LAA (Figure 4). No vegetation SAR were identified within the hardwood-dominant forests during the 2021 or 2022 surveys. Several plants that are known to be of cultural significance to the Mi'kmaq were identified within assessed areas of hardwood forest habitat and are listed below in Section 5.4 (Assessment of Culturally Significant Vegetation). Dominant vegetation within the hardwood dominated forest habitats of the terrestrial LAA included:

- A diverse herbaceous understory with ferns, flowering plants (e.g., asters, lilies), sedges, and ferns; and
- Hardwood trees such as maples (i.e., red, striped, sugar and mountain), American beech, and paper and yellow birch.

Mixedwood and Managed Sugar-bush Forests

Mixedwood forests are tree-dominated landscapes that contain both softwood and deciduous trees (NSDLF 2021a). Within this habitat, some areas were being used as a managed sugar-bush forest. Sugar-bush forests are manicured forested landscapes that are dominated by sugar maple trees (*Acer saccharum*) and where there is active sap collection (i.e., a network of tapped trees and associated tubing). No vegetation SAR or SoCC were identified within the mixedwood forests during the 2021 or 2022 surveys. Several plant species that are known to be of cultural significance to the Mi'kmaq were identified within the mixedwood and sugar bush forest habitat within the assessed area and are listed below in Section 5.4. Dominant vegetation within mixedwood and managed sugar-bush forest habitat of the terrestrial LAA included:

- An overstory canopy dominated by sugar maple, but with occasional American beech and yellow birch;

- A dense understory consisting mostly of striped maple, hobblebush, and mountain maple (in areas where there are no networks of sap collection tubing); and
- A relatively sparse herbaceous layer consisting mostly of common ferns, sedges, and a few hardy flowering forbs.

Softwood-dominant Forests and Managed Softwood Plantations

Softwood-dominant forests are common in areas previously disturbed by fire or windthrow (NSDFL 2021), or, in the case of this site, forestry activities. A typical spruce and pine forest in Nova Scotia consists of an overstory of black spruce and pines (white, red, jack), a shrub layer dominated by ericaceous species (i.e., lambkill, blueberry and huckleberry), along with black spruce regeneration, and a herb cover that may be present but is dependent on the amount of light reaching the ground (NSDFL 2021). Managed softwood plantations typically consist of only one or two species of native or non-native softwoods, often planted in linear rows, and usually of one age class. These plantations generally lack any deciduous understory as they are routinely treated with an herbicide to remove competition from the planted softwoods. Understory plants found in this habitat type tend to be hardy, fast-growing, pioneer species capable of seeding and growing in between applications of herbicide. No vegetation SAR or SoCC were identified within this habitat type during the 2021 or 2022 field and vegetation surveys. Several culturally significant plants were identified and are listed below in Section 5.4. Dominant vegetation observed within softwood-dominated forests and plantations included the following:

- Softwood trees (e.g., red and Norway spruce);
- Woody shrubs (e.g., blueberry, smooth service berry); and
- Understory of fern, grasses and asters, and other hardy flowering plants (i.e., northern starflower, wild sarsaparilla), dependent on the presence of open spaces and time since last herbicide application.

Fields, Clear Cuts and Disturbed Areas

This category includes managed blueberry fields, abandoned pastures, road sides, and other cleared or recently regenerating habitat. Several plants that are considered to be exotic were identified within disturbed habitats. Refer to Section 5.2.1.1 (Exotic and Invasive Vegetation) for more information regarding exotic plants found within the terrestrial LAA of the Westchester Wind Project. No vegetation SAR or SoCC were identified within disturbed areas within the assessed areas during 2021. In 2022 a woodland strawberry (*Fragaria vesca*), a SoCC, was identified around the edges of the row cuts in hardwoods located near the northeastern corner of the LAA (Figure 4). Several culturally-significant plants were identified within disturbed habitat and are listed below in Section 5.4.

Wetlands

Swamps and fens were the main classes of wetland identified within the LAA and a dedicated report will be provided separately for the assessment of wetlands within the LAA. Swamps are wetland types with mineral soils and are not typically dominated by peatlands (NSE 2021). Swamp vegetation is often dominated by trees and shrubs, but also contain grasses, sedges ferns, and rushes in open areas. Fens typically consist of peatlands saturated with water. Vegetation of fens is more diverse than in bogs and generally consists of sedges and mosses and shrubby trees (NSE 2021). As previously mentioned, eastern waterfan (*Peltigera hydrothyria*), an aquatic lichen SAR, was observed at two locations along Gleason Brook near wetlands during the 2021 field studies. One plant SoCC was observed within two swamps in the LAA (i.e., large purple fringed orchid). Large purple fringed orchid (*Platanthera grandiflora*) is ranked by the AC CDC as S3 for vulnerable in Nova Scotia. Details on SAR and SoCC flora are discussed in the next section (Section 5.3) and the locations where they were observed are shown on Figure 4. Several culturally significant plants were identified within the hardwood forest habitat and are listed below in Section 5.4. Dominant vegetation within wetlands included the following:

- Woody shrubs (including speckled alder, mountain holly, Canada yew, rhodora, creeping snowberry, and red raspberry);
- Herbaceous plants (including white meadow sweet, asters grasses, Virginia St. John's-wort, and several ferns, grasses, and sedges); and
- Trees (when present) included softwoods (i.e., white spruce, and balsam fir) and hardwood trees (e.g., red maple and yellow birch).

5.2.1.2 Invasive Vegetation

Plant specialists documented the presence of invasive species encountered during the vegetation surveys and other biophysical surveys conducted between 2021 and 2022 for the proposed Project. A summary of the invasive species found in the terrestrial LAA during the 2021 and 2022 field surveys is presented in Table 4. For this assessment, invasive species are species that have been introduced into areas beyond their native range and negatively impact the environment, the economy, or society (Nova Scotia Invasive Species Council 2021). Numerous species of exotic plants that are typically considered weeds and common in Nova Scotia were identified within the LAA, particularly in disturbed areas and along road sides. It is important to note that not all exotic plant species in Nova Scotia are anticipated to take over natural habitat areas.

Table 4: Invasive Vegetation Species Found in the Terrestrial LAA in 2021 and 2022

Common Name	Scientific Name	Description	Habitat at Westchester Site
Black knapweed	<i>Centaurea nigra</i>	Crowds out native species in meadows, grasslands, and roadsides. ³	Blueberry fields and other anthropogenic disturbed areas
Bull Thistle	<i>Cirsium vulgare</i>	Crowds out species in pastures, rangelands, and agricultural fields. ⁴	Blueberry fields and other anthropogenic disturbed areas
Coltsfoot	<i>Tussilago farfara</i>	Displaces native species in moist, open, disturbed areas such as stream banks, ditches and fields. ⁵	Anthropogenic Disturbed areas
Common Hawkweed	<i>Hieracium lachenalii</i>	Considered highly invasive in woodlands, fields, and roadsides. ⁷	Softwood-dominant forest, plantation/ Blueberry fields and other anthropogenic disturbed areas
Common St. John's-Wort	<i>Hypericum perforatum</i>	Inhabits agricultural areas, forest openings, and meadows. May poison livestock, but is of low concern. ¹	Blueberry fields and other anthropogenic disturbed areas Wetlands
Creeping Buttercup	<i>Ranunculus repens</i>	Crowds out native species in rich, damp soil, but can be found in moist sand or gravel. ⁵	Softwood-dominant forest, plantation/hardwood dominant forests/wetlands
Garden Stonecrop	<i>Hylotelephium telephium</i>	Grows in disturbed soil in roadsides, old fields, waste places, ditches, gardens, swamp margins, and woodland edges. ⁶	Softwood-dominant forests/wetlands
Heath Sedge	<i>Carex flacca</i>	Crowds out native species in high pH bedrock, rich forests, swamps, and wet meadows. ²	Softwood-dominant forest
Norway Spruce	<i>Picea abies</i>	Potential concern as an invasive – can form dense evergreen canopies in deciduous forests. ¹	Softwood-dominant forest, plantation/ Blueberry fields and other anthropogenic disturbed areas
Oxeye Daisy	<i>Leucanthemum vulgare</i>	Invasive – crowds out native plants in disturbed areas; of moderate concern. ¹	Blueberry fields and other anthropogenic disturbed areas

Notes:

1. Canadian Wildlife Federation 2022.
2. Nova Scotia Invasive Species Council 2021.
3. Fraser Valley Invasive Species Society 2022.
4. CABI 2022.
5. Invasive Plant Atlas of the United States 2018.
6. Minnesota Wildflowers 2022.
7. King County. 2018.

5.2.2 Lichen Surveys

Lichen communities were inventoried in the field by Dillon biologists skilled in the identification of common and rare lichen species of Nova Scotia. As mentioned above, 46 lichen species were inventoried over the two years of biophysical surveys, including one SAR and four SoCC, noting that no rare aquatic lichens were observed within 50 m upstream or 100 m downstream of the PDA in 2022. Details and locations of SAR and SoCC lichens are provided below in Section 5.3.

A targeted lichen survey of mature forest habitat within the LAA for lichens was conducted in October 2022. The lichen species identified during the flora and other biophysical surveys conducted between 2021 and 2022 are compiled in Appendix A.

5.3 Vegetation Species at Risk Assessment

5.3.1 AC CDC Data Review

Site-specific AC CDC reports were generated on May 7, 2021 and September 20, 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 flora species observed further from the PDA may not have suitable habitat present within the LAA. The 2022 AC CDC, which supersedes the 2021 report, identified one SAR vascular plant, 14 SoCC vascular plants and one lichen SoCC within 10 km of the PDA.

Prototype quillwort (*Isoetes prototypus*) is an aquatic perennial SAR vascular plant that is found in nutrient-poor, cold, spring-fed lakes (NSDNRR 2022). Sutherland Lake is approximately 5 km south east of the PDA, within the same secondary watershed as part of the PDA (i.e., the Portapique River Secondary Watershed) and is known to have prototype quillwort (NSDNRR 2022). An outlet of Sutherland Lake is the Portapique River which receives flow from tributaries within the PDA via Gleason Brook and Fountain Lake Brook. Sutherland Lake is upstream and hydrogeologically connected to the watercourses within the PDA; therefore, the Project is not anticipated to affect Sutherland Lake. Further, the PDA for the Project does not include applicable habitat for this SAR and no prototype quillworts were observed during the field surveys for vascular plants or during other biophysical surveys conducted in 2021 and 2022.

All priority flora species, including the prototype quillwort, within 10 km of the PDA center are listed in Table 5 (below).

Table 5: Rare and/or Endangered Flora within 10 km from the PDA Centre (AC CDC 2022)

Scientific Name	Common Name	S-rank and Conservation Status	No. of Obs.	Distance from PDA Centre (km)
<i>Isoetes prototypus</i>	Prototype Quillwort	S3 SARA: SC COSEWIC: SC NSES: V	13	6.8 ± 0.0
<i>Fuscopannaria ahlneri</i>	Corrugated Shingles Lichen	S3	49	3.8 ± 0.0
<i>Fagus grandifolia</i>	American Beech	S3S4	332	1.4 ± 0.0
<i>Polygala sanguinea</i>	Blood Milkwort	S3	40	1.7 ± 5.0
<i>Viola selkirkii</i>	Great-Spurred Violet	S3S4	13	1.8 ± 0.0
<i>Asplenium viride</i>	Green Spleenwort	S3	12	3.1 ± 7.0
<i>Platanthera orbiculata</i>	Small Round-leaved Orchid	S3S4	39	3.1 ± 7.0
<i>Hypericum x dissimulatum</i>	Disguised St. John's-wort	S2S3	8	3.9 ± 1.0
<i>Galium boreale</i>	Northern Bedstraw	S2	11	4.6 ± 5.0
<i>Polypodium appalachianum</i>	Appalachian Polypody	S3	36	6.4 ± 0.0
<i>Cypripedium reginae</i>	Showy Lady's-Slipper	S2	66	7.2 ± 7.0
<i>Symphotrichum boreale</i>	Boreal Aster	S3	9	7.2 ± 7.0
<i>Symphotrichum ciliolatum</i>	Fringed Blue Aster	S3	39	7.2 ± 7.0
<i>Platanthera grandiflora</i>	Large Purple Fringed Orchid	S3	127	7.5 ± 1.0
<i>Carex tenera</i>	Tender Sedge	S3	12	8.2 ± 0.0
<i>Spiranthes ochroleuca</i>	Yellow Ladies'-tresses	S3?	27	8.2 ± 0.0

5.3.2

Lichen and Plant SAR and SoCC

During the 2021 and 2022 field seasons, the locations of flora and lichen SAR and SoCC were recorded within the LAA and are shown on Figure 4. No plant SAR and the following four vascular plant SoCC were identified during biological field surveys:

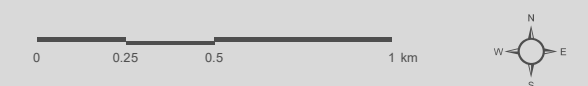
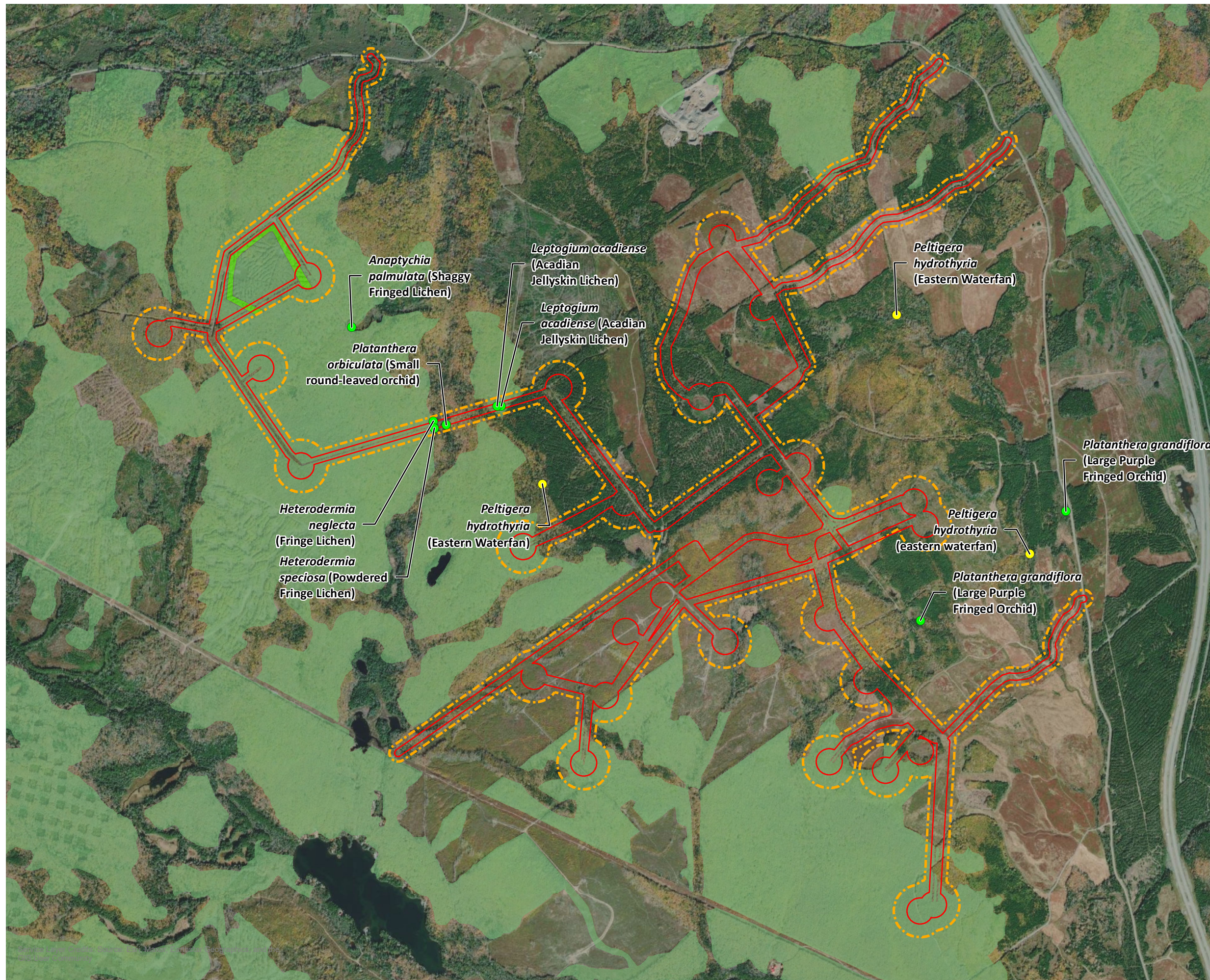
- Large purple fringed orchid (*Platanthera grandiflora*) is ranked by the AC CDC as S3 (Vulnerable) and was identified at two locations within wetlands in the terrestrial LAA in 2021. Approximately 12 plants were observed in a wetland adjacent to Westchester Road and a tributary to Gleason Brook.
- American beech (*Fagus grandifolia*) is ranked by the AC CDC as S3S4 (vulnerable/apparently secure) in Nova Scotia and was found to be common through hardwood dominated forests of the LAA.
- Woodland strawberry (*Fragaria vesca*) is ranked by the AC CDC as S3S4 (vulnerable/apparently secure) in Nova Scotia and was identified around the edges of the row cuts in hardwoods located near the north eastern corner of the LAA.
- Small round-leaved orchid (*Platanthera orbiculata*) is ranked by the AC CDC as S3S4 (vulnerable/apparently secure) in Nova Scotia and was identified at 1 location near the PDA in a forested area between T20 and T21.

VEGETATION AND LICHEN SPECIES AT RISK AND SPECIES OF CONSERVATION CONCERN
FIGURE 4

- Potential Development Area (PDA)
- Local Assessment

Plant

- Species at Risk
- Species of Conservation Concern
- American Beech (*Fagus grandifolia*)
(common in hardwood forests)
- Woodland strawberry (*Fragaria vesca*)



SCALE 1:21,284

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

One lichen SAR and three lichen SoCC were identified during biological field surveys conducted in 2021 and 2022.

- Eastern waterfan (*Peltigera hydrothyria*) is an aquatic lichen that is listed as Threatened under SARA, COSEWIC and NS ESA. In addition, it is ranked S1 by the Atlantic Canada Conservation Data Centre (AC CDC) as imperiled in Nova Scotia. In 2021, eastern waterfan was observed in one location within the LAA (Gleason Brook). A second observation of this lichen was detected further upstream and outside of the LAA during a turtle survey. In 2022, eastern waterfan was observed at one location in Mountain Brook and no observations were reported within the Gleason Brook during the dedicated surveys in 2022. This lichen was growing on rocks within the brooks at the three locations where it was observed.

A protected zone within a 200 m radius of the observed location of the lichen is required based on NSDNRR At-Risk Lichens-Special Management Practices (2018); however, ECCC-CWS recommends 50 m riparian (streamside) buffer of the occupied stream (including streams running into the occupied stream) for 1000m radius around occurrences of eastern waterfan. The additional buffers for the protection of eastern waterfan are recommended due to the high sensitivity of this lichen to siltation/sedimentation. Following a review of the 2021 biophysical survey results, the proposed Project layout was redesigned to minimize crossing of Gleason Brook and its tributaries.

The following four SoCC lichen species were observed within and near the LAA:

- Acadian Jellyskin Lichen (*Leptogium acadinse*) is ranked by the AC CDC as S3S4 (vulnerable/apparently secure) in Nova Scotia, and was observed near the PDA in a forested area between T20 and T21.
- Fringe Lichen (*Heterodermia neglecta*) and Powered Fringe Lichen (*Heterodermia speciosa*) are ranked by the AC CDC as S3S4 (vulnerable/apparently secure) in Nova Scotia. These species were observed in old hardwoods near Mountain Brook within the LAA.
- Shaggy Fringed Lichen (*Anaptychia palmulata*) is ranked by the AC CDC as S3S4 (vulnerable/apparently secure) in Nova Scotia, and was observed in open hardwood forests adjacent to the LAA near Mountain Brook.

5.4

Assessment of Culturally Significant Vegetation

Some of the plants found within the terrestrial LAA are recognized to be traditional Mi'kmaw medicinal plants or culturally-significant plants. A list of culturally important vegetation for the Mi'kmaq that had the potential to be located in the Project area was prepared by a terrestrial biologist from Maqamigew Anqotumeg. The list was established following a desktop analysis of the site and overview of the habitat types located within the Project area. The plants identified during the 2021 and 2022 vegetation surveys were cross referenced with the list of culturally important vegetation. The list of culturally significant plants with the potential to occur in the area is included in Appendix C. A list of the flora considered to be of cultural significance to the Mi'kmaq and identified across the Project site is presented below in Table 6.

Table 6: Culturally significant flora to the Mi'kmaq Observed

Common Name	Scientific Name	Mi'kmaq Name	Habitats Observed within the LAA
Alleghaney Blackberry	<i>Rubus allegheniensis</i>	Ajioqjimanaqsi (blackberry)	Edges of blueberry fields or other disturbed areas/wetlands
American Beech	<i>Fagus grandifolia</i>	Suomusi	Hardwood-dominant forest/softwood-dominant forest/plantation/mixedwood and sugar-bush forest
American Mountain Ash	<i>Sorbus americana</i>	Epsimusi	Blueberry field or other disturbed areas/hardwood-dominant forest/softwood-dominant forest/wetlands
Beaked Hazel	<i>Corylus cornuta</i>	Mlipkanjmusi	Blueberry field/hardwood-dominant forest/softwood-dominant forest/wetlands
Bristly Black Currant	<i>Ribes lacustre</i>	Misseminaqsi	Softwood-dominant forest/wetlands
Chokecherry	<i>Prunus virginiana</i>	Elwimanaqsi	Fields or other disturbed areas/hardwood-dominant forest/wetlands
Common Buttercup	<i>Ranunculus acris</i>	NA	Hardwood-dominant forest
Common Elderberry	<i>Sambucus canadensis</i>	Pukulu'skwimanaqsi (Elderberry)	Hardwood-dominant forest/wetlands
Common Plantain	<i>Plantago major</i>	Wijikanipkl	Blueberry field or other disturbed areas
Creeping Snowberry	<i>Gaultheria hispidula</i>	Kna'ji'j	Wetlands
Dwarf Red Raspberry	<i>Rubus pubescens</i>	Katomin	Hardwood-dominant forest/softwood-dominant forest/fields/wetlands
Eastern White Pine	<i>Pinus strobus</i>	Kuow	Hardwood-dominant forest/blueberry fields
Green Alder	<i>Alnus alnobetula</i>	Tupsi	Hardwood-dominant forest/wetlands
Harlequin Blue Flag	<i>Iris versicolor</i>	NA	Wetlands
Inflated Lobelia	<i>Lobelia inflata</i>	Tmawey	Blueberry fields and other disturbed areas

Common Name	Scientific Name	Mi'kmaq Name	Habitats Observed within the LAA
Late Lowbush Blueberry	<i>Vaccinium angustifolium</i>	Pkwiman (blueberry)	Blueberry fields and other disturbed areas/softwood-forests, plantation/wetlands/hardwood-dominant forests
Marsh Blue Violet	<i>Viola cucullata</i>	NA	Wetlands
Northern Wild Raisin	<i>Viburnum cassinoides</i>	Skinaqanmusi	Wetlands
Partridgeberry	<i>Mitchella repens</i>	Ka'qaujumnaqsi	Hardwood-dominant forests
Pearly Everlasting	<i>Anaphalis margaritacea</i>	Wapwasuek	Blueberry field or other disturbed areas/softwood-dominant forest, plantation/
Pin Cherry	<i>Prunus pensylvanica</i>	Maskwe'simanaqsi	Blueberry field or other disturbed areas/softwood-dominant forest, plantation/mixedwood and sugar-bush forest
Red Clover	<i>Trifolium pratense</i>	NA	Blueberry field or other disturbed areas
Red Elderberry	<i>Sambucus racemosa</i>	Pukulu'skwimanaqsi (Elderberry)	Blueberry field or other disturbed areas/hardwood-dominant forest/wetland
Red Raspberry	<i>Rubus idaeus</i>	Klitaw	Blueberry field or other disturbed areas/wetlands/softwood-dominant forest, plantation/hardwood-dominant forest
Red Spruce	<i>Picea rubens</i>	Mekwe'k kawatkw	Blueberry field or other disturbed areas/softwood-dominant forest, plantation/hardwood-dominant forest
Sheep Laurel	<i>Kalmia angustifolia</i>	NA	Softwood-dominant forest, plantation/hardwood-dominant forest/wetlands
Skunk Currant	<i>Ribes glandulosum</i>	NA	Blueberry field or other disturbed areas/hardwood-dominant forest/wetland

Common Name	Scientific Name	Mi'kmaq Name	Habitats Observed within the LAA
Striped Maple	<i>Acer pensylvanicum</i>	Wapoq	Blueberry field or other disturbed areas/wetlands/softwood-dominant forest, plantation/hardwood-dominant forest/mixedwood and sugar-bush forest
Sugar Maple	<i>Acer saccharum</i>	Snaweyey	Blueberry field or other disturbed areas/softwood-dominant forest, plantation/hardwood-dominant forest/mixedwood and sugar-bush forest
Swamp Red Currant	<i>Ribes triste</i>	NA	Softwood-dominant forest
Sweet-Fern	<i>Comptonia peregrina</i>	NA	Blueberry field or other disturbed areas
Velvet-Leaved Blueberry	<i>Vaccinium myrtilloides</i>	Pkwiman (blueberry)	Blueberry field or other disturbed areas/softwood-dominant forest, plantation
Wild Sarsaparilla	<i>Aralia nudicaulis</i>	Wopapa'kjukal	Blueberry field or other disturbed areas/softwood-dominant forest, plantation/hardwood-dominant forest/mixedwood and sugar-bush forest
Wild Strawberry	<i>Fragaria virginiana</i>	Atuomkomiqaqi	Disturbed areas/softwood-dominant forest, plantation/hardwood-dominant forest/wetlands
Yellow Birch	<i>Betula alleghaniensis</i>	Nimnoqn	Blueberry field or other disturbed areas/softwood-dominant forest, plantation/hardwood-dominant forest/mixedwood and sugar-bush forest

Assessment Conclusions

Based on the results of the desktop review and confirmed through a two-year field assessment of terrestrial habitats and vegetation, the habitat types identified in the LAA for the vegetation and lichens include:

- Hardwood-dominated forest;
- Mixedwood dominated forest (which includes managed sugar-bush forests);
- Softwood-dominated forests (including managed plantations);
- Blueberry fields;
- Recently cleared or cut-overs forestry land; and
- Wetlands.

One aquatic lichen SAR, eastern waterfan (*Peltigera hydrothyria*) and no vascular plant SAR were observed during the vegetation and lichen field surveys conducted over 2021 and 2022. Several SoCC plants and lichens were observed within the LAA, as detailed above in Section 5.3.2. The proposed Project layout was revised following the 2021 field season and the locations where eastern waterfan was observed is >500 m downstream of the nearest crossings of Gleason Brook. In 2022, eastern waterfan was observed within Mountain Brook.

The Project has been sited to minimize the potential impact of the proposed undertaking on natural landscapes and undisturbed natural habitat by selecting lands previously impacted by anthropogenic activities. In this case, the approximately 38% of the PDA is sited on lands previously or presently used for forestry activities, agricultural operations, and access roads and trails. The Project aims to benefit the area by providing an environmentally friendly and productive source of renewable energy for Nova Scotia, while limiting potential impacts to the natural environment.

6.0

Effects Assessment and Mitigation Recommendations

6.1

Identification of Potential Environmental Effects

The Project is located on Westchester Mountain in Cumberland County which includes areas where vegetation and lichen are present, which are considered valued environmental (VECs). A VEC is an element of the environment that has scientific, economic, social, or cultural significance. Vegetation and lichens are considered important features and valued environmental components (VECs) because they are valued in their relationship with wildlife and wildlife habitat, and other biological and physical components addressed as VECs in this EA. Protecting vegetation and plant biodiversity is an important and integral aspect of maintaining a diverse ecosystem.

6.1.1

Approach to Project Components

The Project has three main distinct 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 7 is used as an initial screening to assist in determining if it possible for interactions to occur between the activities being carried out in each phase of the Project and vegetation or lichens.

Table 7: Project Interactions with Environmental Components

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

Legend: ✓ = Potential interaction identified

Those project phases for which a checkmark is provided indicates that the Project may interact with vegetation or lichens, and thus an environmental effects assessment is warranted. Interactions may

occur during the phases of planning, site preparation, construction, operations, and decommissioning as well as due to unplanned events, which are all discussed below.

6.1.2 Identification of Potential Environmental Effects

Without mitigation, the Project has the potential to cause a reduction of vegetation and lichen habitat due to linear infrastructure and turbine foundations. While the construction and decommissioning phases present the potential for negative impact, impacts are temporary or reversible, most notably when the decommissioning phase has concluded and land reclamation activities restore the Project site to its previous state. The potential impacts of the Project to vegetation and lichens include the following:

- The potential for direct loss of vegetation through Project activities including vegetation clearing and grubbing activities during the construction, operational phase, as well as during the eventual Project decommissioning and site reclamation activities.
- The potential for indirect loss of riparian or wetland vegetation communities resulting from the introduction of sediment due to Project activities around waterways and wetlands.
- The potential introduction or spread of invasive species on and off site through plant matter attached to construction and maintenance equipment.
- The potential loss or disturbance to SAR/SoCC plants and lichens during construction and decommissioning phases of the Project or from required maintenance during the operational phase.

6.1.3 Standard Mitigation of Potential Environmental Effects

Standard mitigation has been identified to prevent the interaction from possibly occurring, 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 (ECC 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 Endangered Species Act*, and regulations (NSG 1998a);
- *Nova Scotia Wilderness Areas Protection Act*, and regulations (NSG 1998b); and
- Contingency Planning Guidelines (NSECC 2021).

To further reduce the likelihood of interactions between any phase of the Project to vegetation or lichens, the proposed mitigation measures summarized in Table 8 will be implemented.

Table 8: Potential Interactions & Proposed Mitigation for Vegetation

Potential Interactions with Vegetation	Proposed Mitigation Measures
<p>The potential for direct loss of vegetation through Project activities including vegetation clearing and grubbing activities during the construction, operational phase, as well as during the eventual Project decommissioning and site reclamation activities.</p>	<ol style="list-style-type: none"> 1. Proper vegetation management measures following an Environmental Management and Protection Plan will be instated; 2. Through the site selection process, the Project footprint has been sited predominantly in areas previously disturbed via clear cutting through forestry activities, creating a highly fragmented habitat and the project footprint is limited, to the extent possible, in areas of undisturbed habitat; 3. The area to be disturbed by the Project will be minimized to the extent possible (i.e., limited to the area that is required to accomplish the Project objectives only); 4. Following the construction and decommissioning phases of the Project, natural revegetation with native species will be promoted in consultation with the landowner; 5. The access roads have been optimized to make use of existing roads at the Project site to reduce the amount of flora to be cleared; and, 6. Vegetation control measures during the operational phase will be minimized to the extent possible.
<p>The potential for indirect loss of riparian or wetland vegetation communities may result from introduction of sediment from Project activities around waterways and wetlands.</p>	<ol style="list-style-type: none"> 1. Vehicle cleaning will occur away from any watercourse/wetland. Cleaning will also occur as vehicles leave the site to ensure that invasive species already present are not spread to other areas; and, 2. Any revegetation of a reclaimed site must be either naturally occurring or using native local vegetation in consultation with the landowner.
<p>The potential introduction or spread of invasive species on and off site through plant matter attached to construction equipment.</p>	<ol style="list-style-type: none"> 1. Heavy equipment will be properly cleaned and visually inspected prior to mobilizing to and from site to avoid potential introduction of exotic and invasive species. 2. Vehicle cleaning will occur away from any watercourse/wetland. Cleaning will also occur as vehicles leave the site to ensure that invasive species already present are not spread to other areas.

Potential Interactions with Vegetation	Proposed Mitigation Measures
	<p>3. Equipment will be kept in good working order and regularly maintained to avoid noise disturbances;</p> <p><u>Mitigation Measures for Unplanned Events</u></p> <p>1. Equipment will be kept in good working order and regularly maintained to reduce risk of spills/leaks and to avoid water contamination;</p> <p>2. Spill response kits will 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;</p> <p>3. Where applicable, secondary containment and limited quantities of chemicals and fuels required to be stored 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;</p> <p>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;</p> <p>5. If contaminated soil is encountered, it will be reported to NSE and managed utilizing the Nova Scotia Contaminated Site Regulations;</p> <p>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;</p>
<p>The potential loss or disturbance to SAR/SoCC plants and lichens during construction and decommissioning phases of the Project or from required maintenance during the operational phase.</p>	<p>1. Eastern waterfan is listed as Threatened under the Nova Scotia Endangered Species Act (NS ESA), as such, no disturbance of the species or its habitat is allowed. Construction activities will be planned accordingly.</p> <p>2. Based on NSDNRR At-Risk Lichens Special Management Practices (2018), a protected zone</p>

Potential Interactions with Vegetation	Proposed Mitigation Measures
	<p>within a 200 m radius of the observed location of the SAR lichen, eastern waterfan is to be maintained for minimal disturbance;</p> <ol style="list-style-type: none"> 3. In addition, based on recommendations from ECCC-CWS, a 50m riparian (streamside) buffer of the stream (including streams running into the occupied stream) occupied with the eastern waterfan for a 1000m radius around occurrences of eastern waterfan. 4. The locations of the SAR and SoCC plants will be avoided by adjusting utility pole alignment to buffer these species, where feasible, or spanning their locations by utility poles and refraining from clearing vegetation in their vicinity; 5. Vegetation control measures during the operational phase will be minimized to the extent possible; 6. Glyphosate will not be used in vegetation management for the Project; 7. Those that are performing onsite activities will be familiarized with the SAR/SoCC identified by the field studies prior to any site activities taking place; 8. No work to be completed in waterways were SAR/SoCC species have been observed; 9. Project activities will maintain a 50m riparian (streamside) buffer of any waterways where SAR species have been observed ; 10. Specimens will be marked with flagging tape and GPS location will be provided to onsite workers to ensure they avoid work in the setback area; 11. Efforts will be made to maintain mature vegetation along the edges of the PDA, particularly in riparian areas; and 12. During Project activities, should a new SAR/SoCC be identified, a buffer will be maintained and additional mitigation will be developed in consultation with NSDNRR.

A post-construction monitoring program for the aquatic SAR lichen, eastern waterfan (*Peltigera hydrothyria*), will be developed consisting of two annual field surveys targeting the previously identified locations of eastern waterfan in Gleason Brook in order to assess the impact of construction activities on the population of the lichen. The monitoring program will be developed in consultation with NSDNRR and implemented following approval.

6.2 Residual Environmental Effects

The Project will be developed in such a way as to minimize the area of disturbance within the Project site and natural revegetation of the site will be promoted at the earliest opportunity. The approximately 38% of the PDA has been already disturbed due to previous site activities, including agriculture and forestry, which are unrelated to the Project. The final Project layout will consider appropriate buffers for any identified SAR/SoCC. Project siting has minimized the flora footprint from the access roads, crane pads, turbine foundation, and substation by making use of existing infrastructure and disturbed areas. Land cleared for construction that is not needed for the operational phase of the Project will be restored to the extent possible and is anticipated to naturally regenerate.

Given current knowledge as informed by the desktop assessment, biophysical assessments, and previous site activities, significant potential impacts to vegetation communities are not anticipated as a direct result of the Project with the appropriate implementation of the mitigation measures presented. Any revisions to the Project footprint will consider the locations of the SAR and SoCC plants and avoid them to the extent possible by adjusting utility pole alignment to buffer these species, where feasible, or spanning their locations by utility poles and refraining from clearing vegetation in their vicinity. Additionally, once the decommissioning phase occurs, land reclamation will restore the Project site to its previous state or similar based on discussions with landowners.

With the proposed mitigation measures employed, the significance of residual effects on flora is predicted to be minor; however, post-construction monitoring and adaptive management plans should include monitoring the effects on the aquatic SAR lichen, eastern waterfan (*Peltigera hydrothyria*), identified at the site. Other monitoring or biophysical assessments are not recommended.

6.3 Cumulative Environmental Effects

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). The nearest wind farm to the proposed Project location is the Higgins Mountain Project. The distance between the proposed Project to the nearest existing wind farm is approximately 9 km, and is considered to be sufficient that the potential for interaction between the residual effects of the projects is low. Regional population-wide effects due to the individual residual effects of each project would be unlikely and if such effects occurred they would likely be negligible and unmeasurable.

Additionally, there are other forms of existing disturbances on, and adjacent to, the Project site, including:

- A quarry that has proposed an expansion from 4 hectares (ha) to 40.36 ha to the north of the site, and is situated approximately 0.5 km from the PDA;
- Public roads including highway 104 boarding the LAA to the east;
- Roads for historical and ongoing agricultural and forestry activities located within the LAA;
- Recreational trails for motorized vehicles (heavy equipment, passenger vehicles, and recreational vehicles including All Terrain Vehicles and snowmobiles) located throughout the LAA; and
- Telecommunication towers and the associated overhead power lines and access routes located within the LAA.

As discussed above, the Project will be located predominantly on privately owned lands used for blueberry farming, forestry, maple groves, and recreation (i.e. snowmobile trails). The forestry activities include previously forested land at varying stages of regeneration, as well as undeveloped forested lands owned by forestry companies. Without mitigation measures, cumulative effects to wetlands could occur as a result of:

- Spreading invasive species to new habitats;
- Contributing sediment to wetlands and riparian communities by erosion from dirt roads and vegetation clearing; and,
- Removing protective buffers from sensitive vegetation and lichen species by further fragmentation the landscape by the clearing of additional corridors.

Without the above mitigation measures, cumulative impacts to vegetation and lichens could occur during the operational phase of the Project from the increased number of vehicles and use of site access roads in addition to the existing site uses.

The above mitigation measures were carefully developed to prevent cumulative impacts to vegetation and lichens as a result of the Project. In order to further mitigate risk to vegetation and lichen during the Project phases, there will be a concerted effort to use existing corridors found on site, limit overstory removal, and manage vegetation. Therefore, in consideration of the above and planned mitigation, the residual cumulative environmental effects of the Project in combination with past, present, or reasonably foreseeable projects or activities on vegetation and lichens during the phases including unplanned events are rated not significant. .

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. The Project has been sited to minimize its potential impact on natural landscapes and undisturbed natural habitat by selecting lands previously impacted by anthropogenic activities. The Project aims to benefit the area by providing an environmentally friendly and productive source of renewable energy for Nova Scotia, while limiting potential impacts to the natural environment.

Based on the results of the desktop and field surveys for plants and lichens, two SAR/SoCC plants were identified in the LAA: Eastern waterfan (*Peltigera hydrothyria*) and large purple fringed orchid (*Platanthera grandiflora*). The locations of the SAR will be avoided by buffering infrastructure appropriately. SoCC will be avoided by adjusting utility pole alignment to buffer these species, where feasible, or spanning their locations by utility poles and refraining from clearing vegetation in their vicinity.

This report has been prepared for the Environmental Assessment of the Westchester Wind Project. The Project is expected to provide renewable electricity to Nova Scotia and support Nova Scotia Power in attaining their future renewable energy targets.

Closure

This report was prepared by Dillon Consulting Limited (Dillon) for Natural Forces Developments Limited Partnership (the Proponent) on behalf of the Westchester Wind Limited Partnership, in support of the Westchester 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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Appendix A

Master Plant and Lichen Lists

Vegetation and Lichen Assessment for Westchester Wind Project Appendix A
Table A1: Vascular Plant Master List for 2021 and 2022

Common Name	Scientific Name	S Rank	Herb (CP 2022)	Herbwood Forests & Riparian Areas (CP 2022)	Herbwood (CP 2022)	Roadside Plants (Roe) (CP 2022)	Forest Plantation (CP 2022)	Mature Herbwoods (CP 2022)	Herbaceous Veg (CP 2022)	Thinned Young Herbwood (CP 2022)	Herbwood (CP 2021)	Supertown (CP 2021)	Conifer Plantation (CP 2021)	Blueberry Field (CP 2021)	Wetland (CP 2021)	Road Herbwood/Roadside (CP 2022)	Open Herbwoods (US Plants 2, CP 2022)	Open Herbwoods (US Plants 3 CP 2022)	2022 Incidentals
Balsam Fir	Abies balsamea	55	X	X			X	X	X	X	X	X		X	X	X	X	X	X
Striped Maple	Acer pensylvanicum	55		X			X	X	X	X	X	X		X	X	X	X	X	X
Red Maple	Acer rubrum	55		X			X	X	X	X	X	X		X	X	X	X	X	X
Sage Maple	Acer saccharum	54/55	X	X				X	X	X	X	X		X	X	X	X	X	X
Mountain Maple	Acer spicatum	55						X	X	X	X	X		X	X	X	X	X	X
Baneberry	Actaea sp.	N/A						X	X										X
Colonial Bent Grass	Agrostis capillaris	SNA												X					
Upland Bent Grass	Agrostis perennans	55			X														
Creeping Bugleweed	Ajuga reptans	SNA													X		X	X	
Green Alder	Alnus alnobetula	55		X	X														
Spotted Alder	Alnus incana	55	X	X	X										X	X	X	X	
Smooth Serviceberry	Amelanchier laevis	55												X					
Pearly Everlasting	Anaphalis margaritacea	55	X			X							X	X					
Spreading Dogbane	Apocynum androsaemifolium	55												X		X			
Bristly Saraparilla	Aralia hispida	55	X	X			X							X					
Wild Saraparilla	Aralia nudicaulis	55		X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
Common Burdock	Arctium minus	SNA	X	X															
Jack-In-The-Pulpit	Arisaema triphyllum	55							X						X			X	X
English Daisy	Bellis perennis	SNA				X													
Yellow Birch	Betula alleghaniensis	55	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X
Paper Birch	Betula papyrifera	55		X			X	X	X	X	X	X	X	X	X	X	X	X	X
Gray Birch	Betula populifolia	55	X	X										X					X
Northern Shorttusk	Brachyelytrum aristosum	55										X		X			X	X	X
Bluejoint Reed Grass	Calamagrostis canadensis	55	X	X										X					
Pickering's Reed Grass	Calamagrostis pickeringii	55															X	X	
Wild Calt	Calla palustris	54													X				
Marsh Water starwort	Callitriche palustris	55		X															
Two-leaved Toothwort	Cardamine diphylla	54																X	
Pennsylvania Bittercress	Cardamine pennsylvanica	55							X										
Black Sedge	Carex arctica	55					X			X	X								X
Brownish Sedge	Carex brunscoviensis	55					X									X			
Fibrous-Root Sedge	Carex commutans	55														X			
Fringed Sedge	Carex crinita	55								X					X				
White-Edged Sedge	Carex debilis	55												X	X				X
Dewey'S Sedge	Carex deweyana	55														X			
Two-seeded Sedge	Carex disperma	55								X									
Star Sedge	Carex echinata	55		X											X		X	X	
Health Sedge	Carex flacca	SNA																	X
Northern Long Sedge	Carex folliculata	55													X				
Nodding Sedge	Carex gynandra	55		X					X								X	X	X
Bladder Sedge	Carex intumescens	55		X			X	X	X				X	X	X	X	X	X	X
Bristly-Stalked Sedge	Carex leptalea	55												X	X				X
Finely-Nerved Sedge	Carex leptoneura	55								X	X	X						X	
Willow Sedge	Carex lurida	55		X										X	X		X	X	X
Boreal Bog Sedge	Carex marshalliana	55												X					
New England Sedge	Carex novae-angliae	55																	X
Pale Sedge	Carex pallescens	55													X				
Necklace Sedge	Carex projecta	55		X	X					X					X		X	X	X
Rough Sedge	Carex scabrata	55		X				X							X		X	X	X
Broom Sedge	Carex scoparia	55					X							X		X	X	X	X
Sedge	Carex sp.	N/A							X										
Aust-Fruited Sedge	Carex stipata	55													X		X	X	X
Tussock Sedge	Carex stricta	55													X			X	
Deep Green Sedge	Carex tonsa	55												X					

Vegetation and Lichen Assessment for Westchester Wind Project Appendix A
Table A1: Vascular Plant Master List for 2021 and 2022

Common Name	Scientific Name	S Rank	HEB (CP 2022)	Hardwood Forests & Riparian Areas (CP 2022)	Hardwood Forest (CP 2022)	Roadside Plants (Rise) (CP 2022)	Forest Plantation (CP 2022)	Mature Hardwoods (CP 2022)	Herbaceous Veg (CP 2022)	Thinned Young Hardwood (CP 2022)	Hardwood (CP 2021)	Superstump (CP 2021)	Conifer Plantation (CP 2021)	Blueberry forest (CP 2021)	Wetland (CP 2021)	Road Hardwood/Roadside (CP 2022)	Open Hardwoods (US Plants 2, CP 2022)	Open Hardwoods (US Plants 3, CP 2022)	2022 Incidentals
Three Seeded Sedge	<i>Carex trisperma</i>	55																	
Black knapweed	<i>Centaurea nigra</i>	SNA	X												X				
Firweed	<i>Chamaenerion angustifolium</i>	55	X	X	X	X								X		X			
White Turtlehead	<i>Chelone glabra</i>	55							X						X				X
American Golden Sallfrage	<i>Chrysolepis americanum</i>	55	X												X				X
Small Enchanters nightshade	<i>Circaea alpina</i>	55		X	X				X		X	X			X	X			X
Bull Thistle	<i>Cirsium vulgare</i>	SNA												X					
Interrupted Fern	<i>Claytonomunda claytoniana</i>	55								X			X	X					
Yellow Bluehead Lily	<i>Clintonia borealis</i>	55							X	X						X	X	X	X
Sweet Fern	<i>Comptonia pergrina</i>	55											X	X					
Alternate-Leaved Dogwood	<i>Cornus alternifolia</i>	55		X				X					X	X		X			X
Bunchberry	<i>Cornus canadensis</i>	55	X							X			X	X	X	X			X
Beaked Hazel	<i>Corylus cornuta</i>	55	X	X				X	X				X	X	X	X			X
Pink Lady's Slipper	<i>Cypripedium acaule</i>	55											X	X		X			X
Poverty Oat Grass	<i>Danthonia spicata</i>	55											X	X					X
Flat-branched Tree-clubmoss	<i>Dendrolycopodium obscurum</i>	54														X			X
Eastern Hay-Scented Fern	<i>Dennstaedtia punctilobula</i>	55	X	X	X					X									X
Dutchman's Breeches	<i>Dicentra cucullaria</i>	54																	X
Woolly Panic Grass	<i>Dichanthelium acuminatum</i>	SNA				X	X												X
Northern Panic Grass	<i>Dichanthelium boreale</i>	55											X	X					X
Northern Bush Honeysuckle	<i>Diervilla lonicera</i>	55	X	X									X	X					X
Hairy Flat-Top White Aster	<i>Doellingeria umbellata</i>	55	X	X	X								X	X	X	X	X	X	X
Round-leaved Sundew	<i>Drosera rotundifolia</i>	55											X	X	X				
Scrubose Wood Fern	<i>Dryopteris carthusiana</i>	55	X	X					X										
Crested Wood Fern	<i>Dryopteris cristata</i>	55			X											X	X	X	X
Evergreen Wood Fern	<i>Dryopteris intermedia</i>	55	X	X					X	X	X	X	X	X	X	X	X	X	X
Marginal Wood Fern	<i>Dryopteris marginalis</i>	55										X				X			
Three-Way Sedge	<i>Dulichium arundinaceum</i>	55													X				
a spikerush	<i>Eleocharis sp.</i>	N/A													X				
Northern Willowherb	<i>Epilobium ciliatum</i>	55							X						X				
Box Willowherb	<i>Epilobium isophyllum</i>	55													X				
Marsh Willowherb	<i>Epilobium palustre</i>	55													X				
Helleborine	<i>Epipactis helleborine</i>	SNA																	X
Field Horsetail	<i>Equisetum arvense</i>	55													X				
Water Horsetail	<i>Equisetum fluviatile</i>	55			X														
Woodland Horsetail	<i>Equisetum sylvaticum</i>	55			X														
Eastern Burnweed	<i>Erechtites hieracifolius</i>	55	X																
Canada Horseweed	<i>Erigeron canadensis</i>	55												X					
Robin Plantain Fleabane	<i>Erigeron pulchellus</i>	SNA												X					
Fleabane sp.	<i>Erigeron sp.</i>	N/A				X													
Rough fleabane	<i>Erigeron strigosus</i>	55	X																
Narrow-Leaved Cottongrass	<i>Eriophorum angustifolium</i>	55													X				
Cotton grass sp.	<i>Eriophorum sp.</i>	N/A			X														
Common Eyebright	<i>Euphrasia nemorosa</i>	SNA												X					
Eyebright	<i>Euphrasia sp.</i>	N/A	X	X															
Grass-Leaved Goldenrod	<i>Euthamia graminifolia</i>	55	X			X							X	X	X	X	X	X	X
Spotted Joe Pye Weed	<i>Eutrochium maculatum</i>	55																	X
American Beech	<i>Fagus grandifolia</i>	S34		X							X	X	X			X			X
Fringed Black Bindweed	<i>Fallopia cilioidis</i>	55	X	X	X		X							X					X
Woodland Strawberry	<i>Fragaria vesca</i>	S34				X													X
Wild Strawberry	<i>Fragaria virginiana</i>	55	X							X	X		X		X	X	X	X	X
White Ash	<i>Fraxinus americana</i>	54							X	X	X				X	X			X
Common Hemp-Nettle	<i>Galeopsis tetrahit</i>	SNA	X	X					X						X				X
Rough Bedstraw	<i>Galium asperum</i>	55	X	X					X					X					X

Vegetation and Lichen Assessment for Westchester Wind Project Appendix A
Table A1: Vascular Plant Master List for 2021 and 2022

Common Name	Scientific Name	S Rank	Herb (CP 2022)	Herbwood Forests & Riparian Areas (CP 2022)	Shrubland (CP 2022)	Roadside Plants (Rise) (CP 2022)	Forest Plantation (CP 2022)	Mature Herbwoods (CP 2022)	Herbaceous Veg (CP 2022)	Thinned Young Herbwood (CP 2022)	Herbwood (CP 2021)	Supertown (CP 2021)	Conifer Plantation (CP 2021)	Blueberry Field (CP 2021)	Wetland (CP 2021)	Road Herbwood/Roadside (CP 2022)	Open Herbwoods (US Plants 2, CP 2022)	Open Herbwoods (US Plants 3, CP 2022)	2022 Incidentals
Common Marsh Bedstraw	<i>Galium palustre</i>	55			X				X						X				
Dyer's Bedstraw	<i>Galium tinctorium</i>	55			X														
Creeping Snowberry	<i>Galuthria hispida</i>	55		X											X				
Herb Robert	<i>Geranium robertianum</i>	54																	X
Rough Avens	<i>Geum laciniatum</i>	55																	
Water Avens	<i>Geum rivale</i>	55		X	X										X				
Canada Manna Grass	<i>Glyceria canadensis</i>	55		X											X	X		X	X
Slender Manna Grass	<i>Glyceria melicaria</i>	54		X	X				X						X	X			
Fowl Manna Grass	<i>Glyceria striata</i>	55													X	X			
Marsh Guldwort	<i>Grigophallum oligospermum</i>	SNA													X	X			
Checkered Rattlesnake-Plantain	<i>Goodenia tessellata</i>	54									X								
Oak Fern	<i>Gymnocarpium dryopteris</i>	55				X										X		X	X
American witch-hazel	<i>Hamamelis virginiana</i>	55		X															
Common Hawkweed	<i>Hieracium lachenalii</i>	SNA												X	X				
Rough Hawkweed	<i>Hieracium scabrum</i>	55											X						
Hawkweed spp.	<i>Hieracium</i> spp.	N/A				X													
Azure Blue*	<i>Houstonia cernua</i>	55	X											X					
Shining Firmoss	<i>Huperia lactida</i>	55														X			X
American Water-Pennywort	<i>Hydrocotyle americana</i>	55			X														
Garden Stonecrop	<i>Hylotelephium telephium</i>	SNA													X				X
Northern St. John's-Wort	<i>Hypericum boreale</i>	55												X	X				
Canada St. John's-Wort	<i>Hypericum canadense</i>	55	X												X	X			
Pale St. John's-wort	<i>Hypericum ellipticum</i>	55			X													X	X
Fraser's St. John's-wort	<i>Hypericum fraseri</i>	55			X														
Common St. John's-Wort	<i>Hypericum perforatum</i>	SNA	X											X	X				
Virginia St. John's-wort	<i>Hypericum virginicum</i>	55		X	X												X	X	X
Pinesap	<i>Hypopitys monotropa</i>	54											X						
Mountain Holly	<i>Ilex mucronata</i>	55											X		X				
Winterberry	<i>Ilex verticillata</i>	55			X									X					
Spotted Jewelweed	<i>Impatiens capensis</i>	55							X						X			X	X
Harlequin Blue-Flag	<i>Iris versicolor</i>	55													X				
Jointed Rush	<i>Juncus articulatus</i>	55													X				
Narrow-Panicle Rush	<i>Juncus brevicaudatus</i>	55			X														
Toad Rush	<i>Juncus bufonius</i>	55																	X
Canada Rush	<i>Juncus canadensis</i>	55															X	X	
Compact Rush	<i>Juncus conglomeratus</i>	SNA			X														
Soft Rush	<i>Juncus effusus</i>	55												X	X		X	X	
Slender Rush	<i>Juncus tenuis</i>	55												X					X
g Rush	<i>Juncus</i> Sp.	N/A			X														
Sheep Laurel	<i>Kalmia angustifolia</i>	55	X										X		X				
Canada Lettuce	<i>Lactuca canadensis</i>	55	X																X
Deeye Daisy	<i>Leucanthemum vulgare</i>	SNA	X			X								X	X				
Butter-And-Eggs	<i>Linaria vulgaris</i>	SNA												X					
Twainflower	<i>Liparis borealis</i>	55											X	X					
Inflated Lobelia	<i>Lobelia inflata</i>	55	X																X
Canada Fly Honey-suckle	<i>Lonicera canadensis</i>	55		X				X	X	X				X		X		X	X
Marsh Seedbox	<i>Ludwigia palustris</i>	55						X	X										
Common Woodrush	<i>Luzula multiflora</i>	55								X					X				X
American Water Horehound	<i>Lycopus americanus</i>	55													X				X
Northern Water Horehound	<i>Lycopus uniflorus</i>	55		X	X			X	X										
Northern Star-flower	<i>Lysimachia borealis</i>	55	X					X	X	X			X	X	X	X	X	X	X
Swamp Yellow Loosestrife	<i>Lysimachia terrestris</i>	55												X	X	X	X	X	X
Wild Lily-of-The-Valley	<i>Masanthemum canadense</i>	55	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
Large False Solomon's Seal	<i>Maianthemum racemosum</i>	5455	X	X				X	X	X					X				X

Vegetation and Lichen Assessment for Westchester Wind Project Appendix A
Table A1: Vascular Plant Master List for 2021 and 2022

Common Name	Scientific Name	S Rank	Herb (CP 2022)	Herbwood Forests & Riparian Areas (CP 2022)	Herbwood (CP 2022)	Roadside Plants (Rise) (CP 2022)	Forest Transition (CP 2022)	Mature Herbwoods (CP 2022)	Herbaceous Veg (CP 2022)	Thinned Young Herbwood (CP 2022)	Herbwood (CP 2021)	Supernova (CP 2021)	Conifer Plantation (CP 2021)	Blueberry forest (CP 2021)	Wetland (CP 2021)	Road Herbwood (CP 2022)	Open Herbwoods (US Plants 2 CP 2022)	Open Herbwoods (US Plants 3 CP 2022)	2022 Incidentals
Mallow sp.	Malva sp.	N/A	X																
Pinappleweed	Matricaria discoides	SNA	X																
Ostrich Fern	Matricaria struthiopteris	S5						X	X						X				X
Cucumber Root	Medeola virginiana	S5														X			X
American Cow Wheat	Melanoglymum lineare	S5	X																
White Sweet-Clover	Melilotus albus	SNA												X					
Partridgeberry	Mitchella repens	S5		X											X	X			X
Naked Bishop's-Cap	Mitella nuda	S4S5																	
Convulsion-Root	Monotropa uniflora	S5		X						X				X	X	X			X
Small Target-Mile-Wort	Myosotis laxa	S5											X			X			X
Tall Rattlesnakeroot	Nabalus alissinus	S5													X	X			X
Three-Leaved Rattlesnakeroot	Nabalus trifololatus	S5												X	X				X
Canada Toadflax	Nuttallanthus canadensis	SNA												X					
Whorled Wood Aster	Oclemena acuminata	S5		X				X		X	X	X	X		X	X	X	X	X
Common Evening Primrose	Oenothera biennis	S5	X	X		X								X	X				
Sensitive Fern	Oenochia sensibilis	S5		X	X				X				X		X			X	X
One-sided Wintergreen (One-Sided Royal Fern)	Osmunda regalis	S5							X										X
Cinnamon Fern	Osmundastrum cinnamomeum	S5		X											X	X			X
Common Wood Sorrel	Oxalis montana	S5					X	X	X	X	X	X			X	X			X
European Wood Sorrel	Oxalis stricta	S5	X	X		X	X	X	X	X	X			X	X				X
Schweinitz's Groundsel	Packeria schweinitziana	S4													X				
New York Fern	Parathypteris noveboracensis	S5		X						X				X	X	X		X	X
Arrow-Leaved Smartweed	Panicum sagittatum	S5			X									X	X		X	X	X
Northern Beech Fern	Phlegelis connectilis	S5		X	X					X	X	X				X		X	X
Common Timothy	Pheum pratense	SNA	X																X
Norway Spruce	Picea abies	SNA					X						X	X	X				X
White Spruce	Picea glauca	S5		X										X	X	X	X	X	X
Black Spruce	Picea mariana	S5		X															X
Red Spruce	Picea rubens	S5		X	X				X				X	X	X				X
Moose-ear Hawkweed	Pilosella officinarum	SNA	X											X					X
King Devil Hawkweed	Pilosella floribunda	SNA																	X
Eastern White Pine	Pinus strobus	S5		X										X					X
Common Plantain	Plantago major	SNA	X	X		X								X	X	X			
White Fringed Orchid	Platanthera blephariglossis	S4S5													X				
Club Spur Orchid	Platanthera clavellata	S5													X				
Large Purple Fringed Orchid	Platanthera grandiflora	S3													X				
Small Round-leaved Orchid	Platanthera orbiculata	S3S4																	X
May-Apple	Podophyllum peltatum	SNA												X					
Christmas Fern	Polystichum acrostichoides	S5		X				X	X							X			X
Large-toothed Aspen	Populus grandidentata	S5		X															
Trembling Aspen	Populus tremuloides	S5		X										X	X				
Ribbon-leaved pondweed	Potamogeton spithydus	S5			X														
Dowry Cinquefoil	Potentilla intermedia	S5				X													
Rough Cinquefoil	Potentilla noronensis	S5				X								X					
Old Field Cinquefoil	Potentilla simplex	S5	X											X					
Common Self-Heal	Prunella vulgaris	S5	X	X		X			X				X	X	X				
Pin Cherry	Prunus pennsylvanica	S5	X	X				X				X	X	X					
Black Cherry	Prunus serotina	S5						X						X	X				X
Chokecherry	Prunus virginiana	S5	X	X										X	X	X	X	X	X
Truckee Fern	Psidium aquilinum	S5											X	X	X				X
Shinleaf	Pyrola elliptica	S5								X						X			X
Pyrola sp.	Pyrola sp.	N/A	X																
Northern Red Oak	Quercus rubra	S5													X				

Vegetation and Lichen Assessment for Westchester Wind Project Appendix A
Table A1: Vascular Plant Master List for 2021 and 2022

Common Name	Scientific Name	S Rank	HEB (CP 2022)	Hardwood Forests & Riparian Areas (CP 2022)	Hardwood Forest (CP 2022)	Roadside Plants (Roe) (CP 2022)	Forest Transition (CP 2022)	Mature Hardwoods (CP 2022)	Hemlock Rafters (CP 2022)	Thinned Young Hardwood (CP 2022)	Hardwood (CP 2021)	Supernova (CP 2021)	Conifer Plantation (CP 2021)	Blueberry forest (CP 2021)	Wetlands (CP 2021)	Road Hardwood/Roadside (CP 2022)	Open Hardwoods (US Plants 2, CP 2022)	Open Hardwoods (US Plants 3 CP 2022)	2022 Incidents
Kidney-Leaved Buttercup	Ranunculus abortivus	S4S5																X	X
Common Buttercup	Ranunculus acris	SNA																	X
Small Yellow Water-Crowfoot	Ranunculus gmelinii	S4		X															
Hooped Buttercup	Ranunculus recurvatus	S4							X										
Creeping Buttercup	Ranunculus repens	SNA							X				X		X			X	X
Rhodora	Rhododendron canadense	S5	X	X	X										X				
Common Labrador Tea	Rhododendron groenlandicum	S5		X											X				
White Bearbrush	Rhynchospora alba	S5																	
Skunk Currant	Ribes glandulosum	S5									X								
Smooth Gooseberry	Ribes hirtellum	S5												X	X	X			X
Bristly Black Currant	Ribes lacini	S5		X	X				X						X	X	X	X	X
Savamp Red Currant	Ribes triste	S4							X										
European Gooseberry	Ribes uva-ursi	SNA		X															
Virginia Rose	Rosa virginiana	S5												X	X				
Alleghany Blackberry	Rubus allegheniensis	S5				X								X	X				
Bristly Dewberry	Rubus hegetius	S5	X	X	X									X	X				
Red Raspberry	Rubus idaeus	S5	X	X		X	X							X	X	X	X	X	X
Dwarf Red Raspberry	Rubus pubescens	S5	X	X	X				X			X			X	X	X	X	X
Sheep Sorrel	Rumex acetosella	SNA			X										X				
Greater Water Dock	Rumex britanica	S5																X	X
Curled Dock	Rumex crispus	SNA													X				
Western Dock	Rumex occidentalis	SNA												X					
Bebb'S Willow	Salix bebbiana	S5			X								X		X	X	X	X	X
Cutlomb Willow	Salix emiccephala	S5		X	X														
Balsam Willow	Salix pyrifolia	S5												X					
Willow	Salix sp.	N/A				X									X			X	X
Common Elderberry	Sambucus canadensis	S5						X							X				
Red Elderberry	Sambucus racemosa	S5		X				X						X	X	X	X	X	X
Black-girdled Bulrush	Scirpus atrocinctus	S5												X	X				
Common Woolly Bulrush	Scirpus cyperinus	S5					X							X	X		X	X	
Mossy Bulrush	Scirpus halimifolius	S5												X					
Small Fruited Bulrush	Scirpus microcarpus	S5			X									X	X			X	
Autumn Hawkbit	Scorzonoides autumnalis	SNA	X											X	X	X			
Marsh Skullcap	Scutellaria galericulata	S5												X	X				
mad dog skullcap	Scutellaria lateriflora	S5			X									X	X			X	X
Mountain Blue-eyed-grass	Sisyrinchium montanum	S5																	X
White Goldenrod	Solidago bicolor	S5	X																
Canada Goldenrod	Solidago canadensis	S4S5	X	X	X										X	X	X	X	X
Zigzag Goldenrod	Solidago flexicaulis	S5						X	X										X
Gray Stemmed Goldenrod	Solidago nemoralis	S4S5												X					
Downy goldenrod	Solidago puberula	S5	X																
Rough Stemmed Goldenrod	Solidago rugosa	S5	X	X	X		X						X	X	X	X	X	X	X
Northern Bog Goldenrod	Solidago uliginosa	S5				X									X				
Prickly Sow Thistle	Sonchus asper	SNA												X	X				
American Mountain Ash	Sorbus americana	S5	X	X	X			X					X	X					
Mountain Ash sp.	Sorbus sp.	N/A													X			X	X
Narrow-Leaved Burreed	Sparganium angustifolium	S5																X flood	X flood
Green-fruited Burreed	Sparganium emersum	S5			X														
Common Corn Spurrey	Spergula arvensis	SNA	X																
White Meadowsweet	Spiraea alba	S5	X											X	X		X	X	
Strawplough	Spiraea tomentosa	S5	X											X	X				X
Prairie Cordgrass	Sporobolus michauxianus	S5												X	X				
Clasping-Leaved Twisted-Stalk	Streptopus amplexifolius	S4S5							X										X
Rose Twisted-stalk	Streptopus lanceolatus	S5				X		X	X						X				X

Vegetation and Lichen Assessment for Westchester Wind Project Appendix A
Table A1: Vascular Plant Master List for 2021 and 2022

Common Name	Scientific Name	S Rank	Herb (C.P. 2022)	Herbwood Forests & Riparian Areas (C.P. 2022)	Shrubland (C.P. 2022)	Roadside Plants (Rose) (C.P. 2022)	Forest Plantation (C.P. 2022)	Mature Herbwoods (C.P. 2022)	Herbaceous Veg (C.P. 2022)	Thinned Young Herbwood (C.P. 2022)	Herbwood (C.P. 2021)	Supernova (C.P. 2021)	Conifer Plantation (C.P. 2021)	Blueberry Field (C.P. 2021)	Wetland (C.P. 2021)	Road Herbwood/ Roadside (C.P. 2022)	Open Herbwoods (US Plants 2, C.P. 2022)	Open Herbwoods (US Plants 3, C.P. 2022)	2022 Incidentals
Calico Aster	<i>Symphoricarpos lateriflorum</i>	S5	X						X					X		X	X	X	X
Purple-Stemmed Aster	<i>Symphoricarpos puniceum</i>	S5		X	X									X	X	X	X	X	X
Aster sp.	<i>Symphoricarpos</i> sp.	N/A				X													
Common Dandelion	<i>Taraxacum officinale</i>	SNA												X					
Canada Yew	<i>Taxus canadensis</i>	S4S5						X							X				
Tall Meadow-Rue	<i>Thalictrum pubescens</i>	S5		X	X				X						X			X	X
Eastern Marsh Fern	<i>Thelypteris palustris</i>	S5												X	X				
Rabbit's-foot Clover	<i>Trifolium arvense</i>	SNA												X					
Yellow Clover	<i>Trifolium aureum</i>	SNA													X				
Low Hop Clover	<i>Trifolium campestre</i>	SNA												X					
Small Hop Clover	<i>Trifolium dubium</i>	SNA												X					
Red Clover	<i>Trifolium pratense</i>	SNA	X											X					
White Clover	<i>Trifolium repens</i>	SNA	X											X					
Painted Trillium	<i>Trillidium undulatum</i>	S5														X			
Nodding Trillium	<i>Trillium cernuum</i>	S4						X						X	X	X			X
Red Trillium	<i>Trillium erectum</i>	S4							X	X									
Trillium sp.	<i>Trillium</i> sp.	N/A		X															
Eastern Hemlock	<i>Tsuga canadensis</i>	S4							X										X
Coltsfoot	<i>Tussilago farfara</i>	SNA																X	
Broad-leaved Cattail	<i>Typha latifolia</i>	S5			X														
Blue Cattail	<i>Typha x glauca</i>	SNA													X				
Late Lowbush Blueberry	<i>Vaccinium angustifolium</i>	S5	X											X	X	X	X	X	X
Large Cranberry	<i>Vaccinium macrocarpon</i>	S5			X														
Velvet-Leaved Blueberry	<i>Vaccinium myrtilloides</i>	S5												X	X				
Small Cranberry	<i>Vaccinium oxycoccos</i>	S5													X				
Common Mullein	<i>Verbascum thapsus</i>	SNA				X													
American Speedwell	<i>Veronica americana</i>	S5		X					X										
Common Speedwell	<i>Veronica officinalis</i>	SNA	X			X	X	X	X		X	X	X	X	X	X		X	X
Northern Wild Raisin	<i>Viburnum cassinoides</i>	S5													X				
Hobblebush	<i>Viburnum lentianoides</i>	S4		X					X	X	X	X				X			X
Tufted Vetch	<i>Vicia cracca</i>	SNA	X																
Sweet White Violet	<i>Viola blanda</i>	S5						X						X					
Marsh Blue-Violet	<i>Viola cucullata</i>	S5				X			X										
Small White Violet	<i>Viola macdokeyi</i>	S5				X													
Kidneyleaf White Violet	<i>Viola renifolia</i>	S4		X															
Violet	<i>Viola</i> sp.	N/A								X									
Mountain-ash - Chokeberry Hybrid	<i>X Sorbaronia arsenii</i>	SNA	X																
Aspen	<i>Picea</i> sp.	N/A	X																

Sub-national (provincial) ranks (S-ranks) derived from the Atlantic Canada Conservation Data Centre (ACCDC) 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; SU Unrankable; and SNA Not Applicable

Vegetation and Lichen Assessment for Westchester Wind Project Appendix A

Table A2: Lichen Master List for 2021 and 2022

Scientific Name	Common Name	S-rank
<i>Graphis scripta</i>	a Lichen	S5
<i>Lecanora caesiorubella</i>	a Lichen	S5
<i>Lecanora thysanophora</i>	a Lichen	S5
<i>Lepra amara</i> (Pertusia amara)	a lichen	S5
<i>Mycoblastus sanguinarioides</i>	a Lichen	S5
<i>Pertusaria macounii</i>	a Lichen	S5
<i>Thelotrema lepadinum</i>	a Lichen	S5
<i>Isoospora ochrophaea</i>	a Lichen	SU
<i>Cetrelia</i> sp	a Seastorm Lichen	SNA
<i>Parmelia</i> sp. (small, flat)	a shield lichen	SNA
<i>Melanelixia subaurifera</i>	Abrading Camouflage Lichen	S5
<i>Leptogium acadiense</i>	Acadian Jellyskin Lichen	S3S4
<i>Parmeliella triptophylla</i>	Black-bordered Shingles Lichen	S5
<i>Collema furfuraceum</i>	Blistered Tarpaper Lichen	S5
<i>Leptogium cyanescens</i>	Blue Jellyskin Lichen	S5
<i>Parmelia squarrosa</i>	Bottlebrush Shield Lichen	S5
<i>Ropalospora chlorantha</i>	Comet-spored Lichen	S5
<i>Ochrolechia androgyna</i>	Crabseye Lichen	S5
<i>Platismatia tuckermanii</i>	Crumpled Rag Lichen	S5
<i>Peltigera hydrothyria</i>	Eastern Waterfan	S1 SARA: T COSOWIC: T NSESA: T
<i>Heterodermia neglecta</i>	Fringe Lichen	S3S4
<i>Nephroma helveticum</i>	Fringed Kidney Lichen	S4S5
<i>Tuckermannopsis americana</i>	Fringed Wrinkle Lichen	S5
<i>Bryoria trichodes</i>	Inelegant Horsehair Lichen	S5
<i>Lobaria pulmonaria</i>	Lungwort Lichen	S5
<i>Peltigera polydactylon</i>	Many-fruited Pelt Lichen	S5
<i>Hypogymnia physodes</i>	Monk's Hood Lichen	S5
<i>Nephroma laevigatum</i>	Mustard Kidney Lichen	S5
<i>Pyxine soorediata</i>	Mustard Lichen	S5
<i>Phaeophyscia rubropulchra</i>	Orange-cored Shadow Lichen	S5
<i>Peltigera evansiana</i>	Peppered Pelt Lichen	S4S5
<i>Heterodermia speciosa</i>	Powdered Fringe Lichen	S3S4
<i>hypogymnia tubelosa</i>	Powder-headed Tube Lichen	S5
<i>Ramalina dilacerata</i>	Punctured Ramalina Lichen	S5
<i>Punctelia rudecta</i>	Rough Speckleback Lichen	S5
<i>Parmelia saxatilis</i>	Salted Shield Lichen	S5
<i>Anaptychia palmulata</i>	Shaggy Fringed Lichen	S3S4
<i>Leptogium laceroides</i>	Short-bearded Jellyskin Lichen	S4
<i>Ramalina americana</i>	Sinewed Ramalina Lichen	S5
<i>Ricasolia quercizans</i>	Smooth Lung Lichen	S5
<i>Cladonia ochrochlora</i>	Smooth-footed Powderhorn Lichen	S5
<i>Physcia stellaris</i>	Star Rosette Lichen	S5
<i>lobaria scrobiculata</i>	Textured Lungwort Lichen	S5
<i>Collema subflaccidum</i>	Tree Tarpaper Lichen	S5
<i>Tuckermannopsis orbata</i>	Variable Wrinkle Lichen	S5
<i>Platismatia glauca</i>	Varied Rag Lichen	S5
Sub-national (provincial) ranks (S-ranks) retrieved from the Atlantic Canada Conservation Data Centre (ACDC) 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; SU Unrankable; and SNA Not Applicable		

Appendix B

Photographs

Hardwood- Dominant Forest (Top: April 28, 2021 Bottom: July 13, 2022)



Softwood- Dominant Forest/Plantation (April 28, 2021)



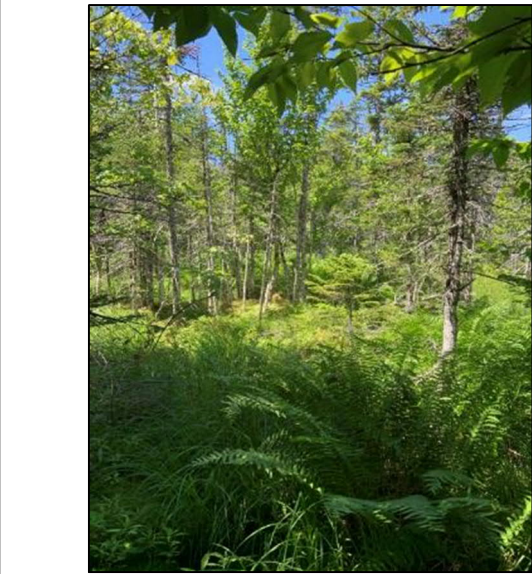
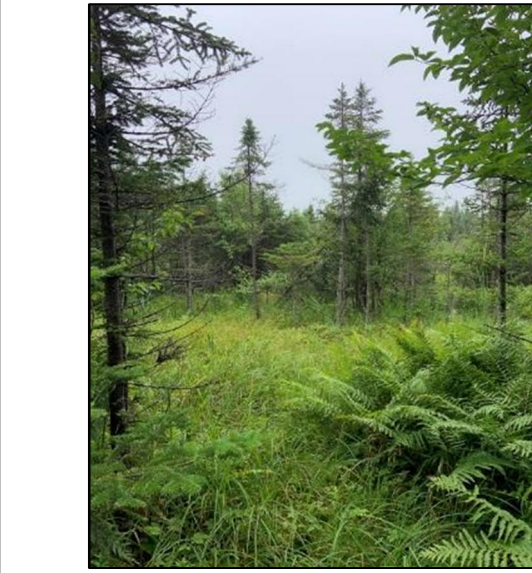
Sugar Maple Forest (April 28, 2021)



Blueberry Field/Disturbed Area (April 28, 2021)



Bogs and Fens



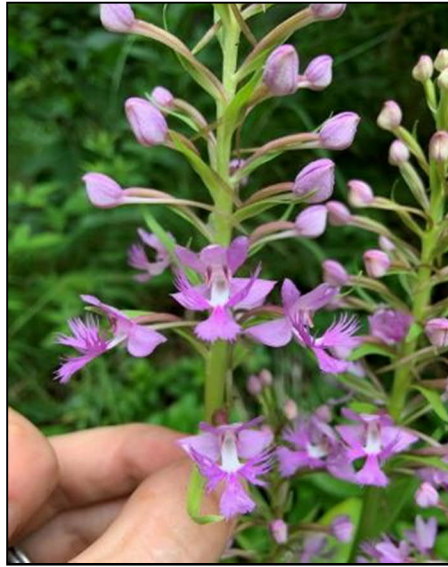
Swamps and Marshes



Access Road and Trail Corridors (July 13-14, 2022)



Large Purple Fringed Orchid (July 15, 2021)



Eastern Waterfan in Gleason Brook



June 7, 2021



August 25, 2021

Heterodermia speciosa, October 20, 2022



Peltigera hydrothyria, October 20, 2022

Appendix C

Culturally Significant Vegetation Regional List

November 10, 2021

Attention: Regan Kelly

SUBJECT: Mi'kmaq vegetation list in support of Benjamin Mills and Westchester Wind Farm

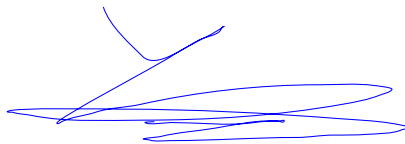
Dear Regan,

As per requested, Maqamigew Anqotumeg has provided Dillon Consulting a vegetation list in support of the Benjamin Mills and Westchester Wind Farm. A vegetation list of cultural importance for the Mi'kmaq Nation of Nova Scotia. A list established from a desktop analysis of the Site Plans (Figure 1 and Figure 2) provided by Dillon Consulting, including a review of the wetlands assessment completed by Strum Environmental in May 2012 for the Westchester Wind Power Project. The provided vegetation list in Table 1 refers to the areas inside of the Site Plans of Figures 1 and 2 only. The flora present in Table 1 are culturally significant to the Mi'kmaq Nation of Nova Scotia for herbal medicine and foraging and are believed to likely be present within the Site Plans of Benjamin Mills and Westchester Wind Farms. A field survey of the Site Plans should be cross referenced with the list provided by Maqamigew Anqotumeg in order to provide an accurate portrayal of the culturally significant flora within each Site Plans.

Thank you for providing Maqamigew Anqotumeg the opportunity to provide Dillon Consulting with this vegetation list and have endeavored to be thorough in our desktop analysis of the Site Plans for Benjamin Mills and Westchester Wind Farms. Should you have any questions, would like to clarify anything with this list or require any additional information, please do not hesitate to contact the undersign.

Regards,

Maqamigew Anqotumeg



Lyle Vicaire, Terrestrial Biologist, MSc

Owner and Operator, Maqamigew Anqotumeg

Figure 1

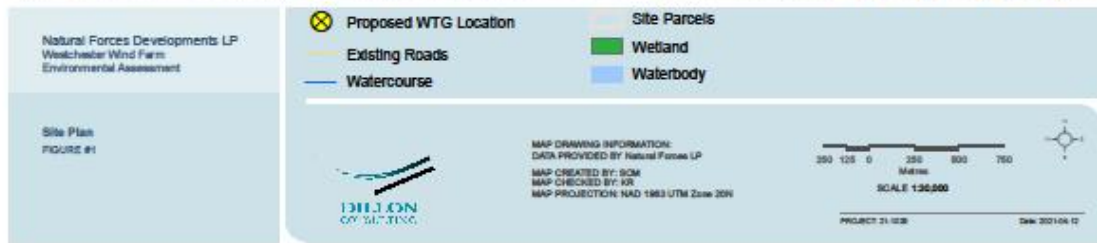
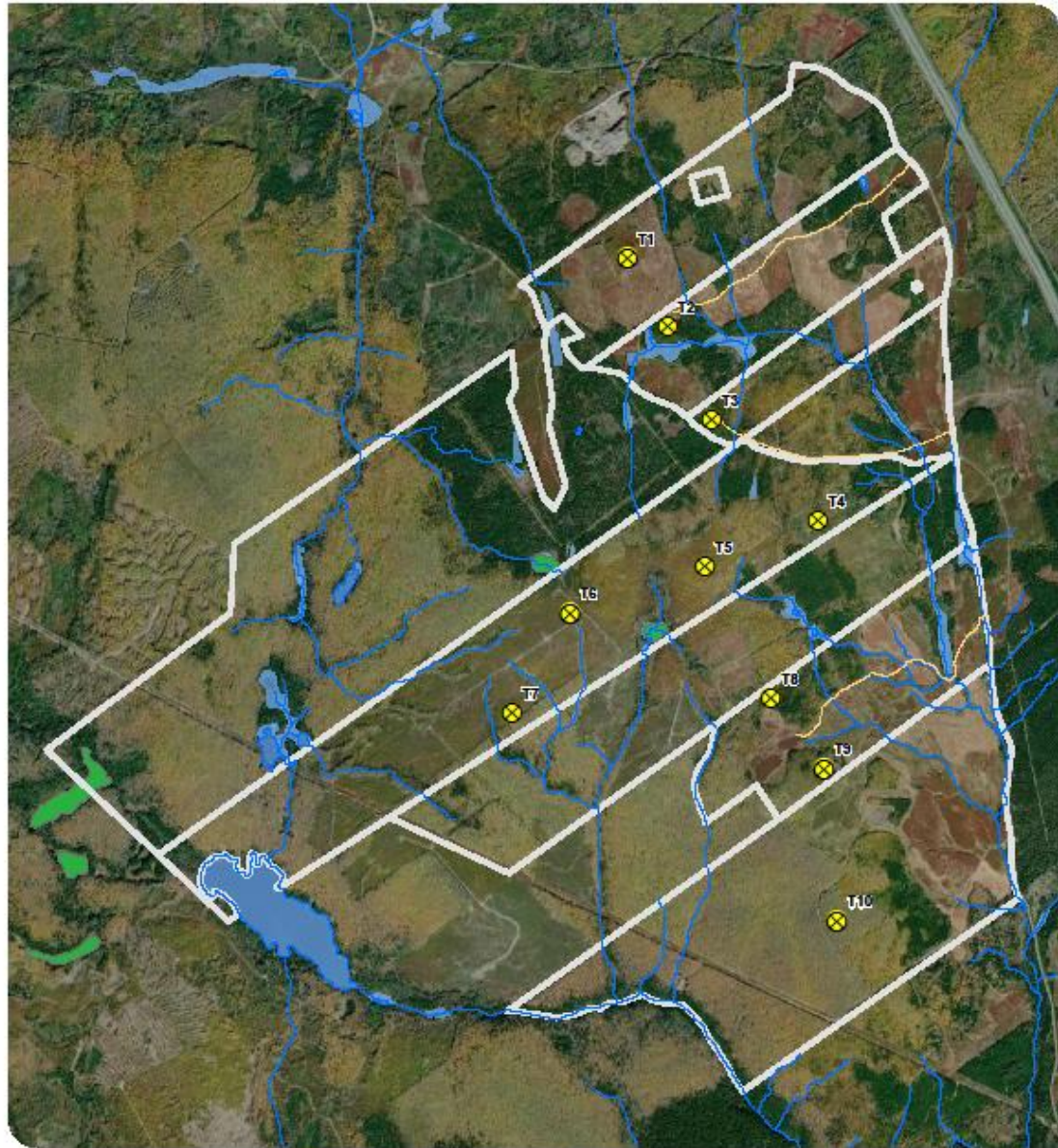




Table 1 – Culturally significant flora to the Mi'kmaq Nation likely within the Site Plans of Benjamin Mills and Westchester Wind Farms

English Name	Scientific Name	Mi'kmaq Name
American Beech	<i>Fagus grandifolia</i>	<i>Suomusi</i>
American Larch	<i>Larix laricina</i>	<i>Ap'tamkiejit</i>
American Mountain-Ash	<i>Sorbus americana</i>	<i>Epsimusi</i>
American Red Raspberry	<i>Rubus idaeus</i>	<i>Klitaw</i>
Beaked Hazelnut	<i>Corylus cornuta</i>	<i>Mlipkanjmusi</i>
blackberry sp.	<i>Rubus</i>	<i>Ajioqjimanaqsi</i>
Bristly Black Currant	<i>Ribes lacustre</i>	<i>Misseminaqsi</i>
Choke Cherry	<i>Prunus virginiana</i>	<i>Elwimanaqsi</i>
Common Yarrow	<i>Achillea millefolium</i>	NA
Creeping Snowberry	<i>Gaultheria hispidula</i>	<i>Kna'ji'</i>
Dwarf Red Raspberry	<i>Rubus pubescens</i>	<i>Katomin</i>
Eastern White Pine	<i>Pinus strobus</i>	<i>Kuow</i>
Pin Cherry	<i>Prunus pensylvanica</i>	<i>Maskwe'simanaqsi</i>
Goldthread	<i>Coptis trifolia</i>	<i>Wisawkweskl</i>
Green Alder	<i>Alnus viridis</i>	<i>Tupsi</i>
Indian-Tobacco	<i>Lobelia inflata</i>	<i>Tmawey</i>
Large-Leaved Avens	<i>Geum macrophyllum</i>	NA
Blueberry species	<i>Vaccinium sp</i>	<i>Pkwiman</i>
Marsh Blue Violet	<i>Viola cucullate</i>	NA
Common Plantain	<i>Plantago major</i>	<i>Wijikanipkl</i>
Northern Blueflag	<i>Iris versicolor</i>	NA
Northern Wild Raisin	<i>Viburnum nudum</i>	<i>Skinaqanmusi</i>
Old Witch Panic-Grass	<i>Panicum capillare</i>	NA
Wintergreen	<i>Mitchella repens</i>	<i>Ka'qaujumnaqsi</i>
Pearly Everlasting	<i>Anaphalis margaritacea</i>	<i>Wapwasuek</i>
Red Clover	<i>Trifolium pratense</i>	NA
Elderberry	<i>Sambucus sp</i>	<i>Pukulu'skwimanaqsi</i>
Red Spruce	<i>Picea rubens</i>	<i>Mekwe'k kawatkw</i>
Sheep-Laurel	<i>Kalmia angustifolia</i>	NA
Skunk Currant	<i>Ribes glandulosum</i>	NA
Striped Maple	<i>Acer pensylvanicum</i>	<i>Wapoq</i>
Sugar Maple	<i>Acer saccharum</i>	<i>Snaweyey</i>
Swamp Red Currant	<i>Ribes triste</i>	NA
Sweet Fern	<i>Comptonia peregrina</i>	NA
Tall Butter-Cup	<i>Ranunculus acris</i>	NA
Virginia Strawberry	<i>Fragaria virginiana</i>	<i>Atuomkominaqsi</i>
Wild Sarsaparilla	<i>Aralia nudicaulis</i>	<i>Wopapa'kjukal</i>
Yellow Birch	<i>Betula alleghaniensis</i>	<i>Nimnoqn</i>