

APPENDIX E

VEGETATION SURVEYS



DILLON
CONSULTING

NATURAL FORCES DEVELOPMENTS LP

Vegetation Surveys

Westchester Wind Project - Appendix E

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1.0

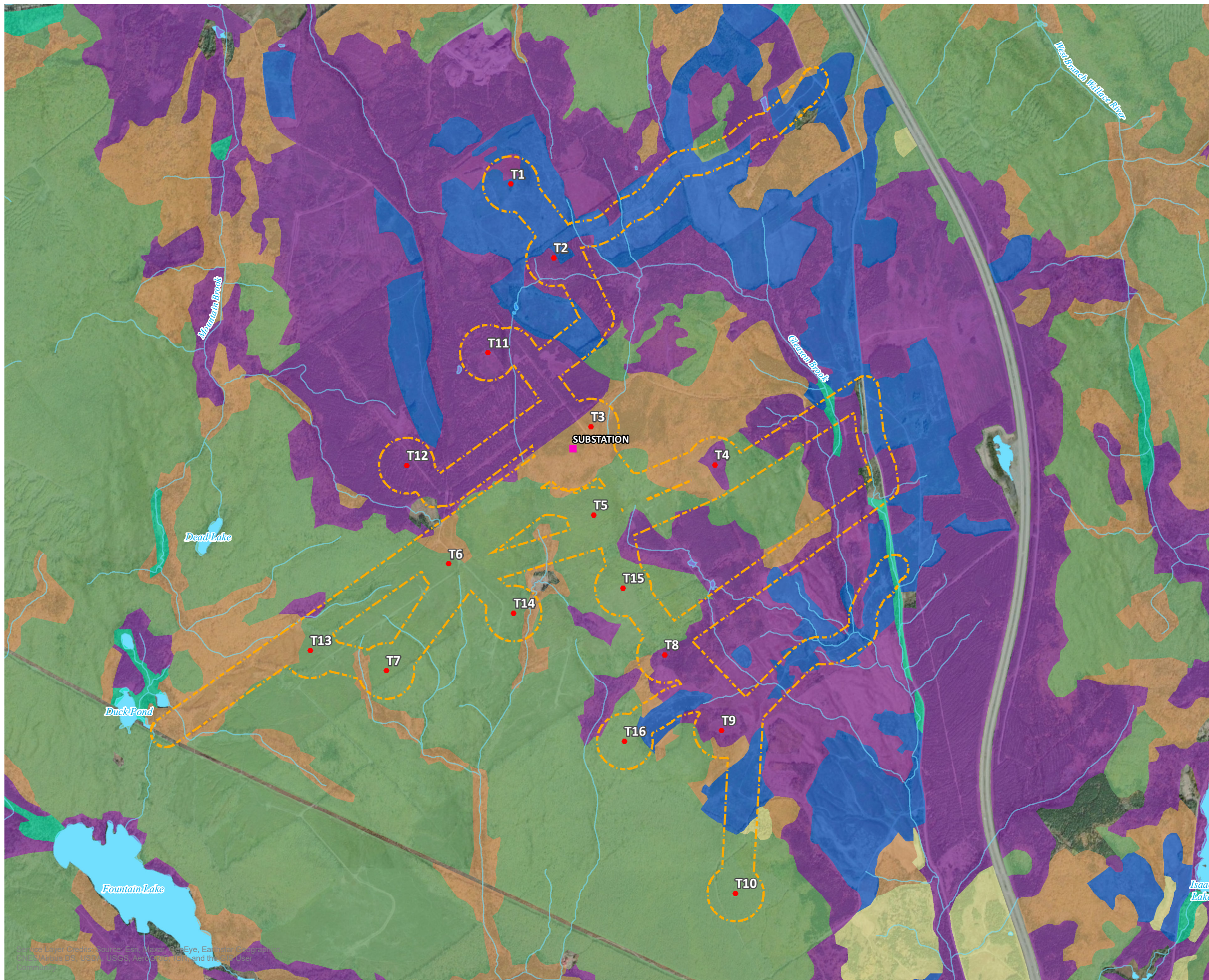
Introduction

The Proponent engaged the expertise of Dillon Consulting Ltd. (Dillon) to conduct biophysical surveys for the Westchester Wind Project (Project) including surveys to characterize the terrestrial habitat and identify vegetation species that exist or that may exist throughout the Local Assessment Area (LAA) for the Terrestrial Environment for the proposed Project. Dillon's qualified professionals (biologists and botanists) have been involved in several resource development projects in Atlantic Canada and have assisted many Proponents through the provincial environmental assessment processes.

Terrestrial habitats and vegetation were selected as VECs because they are valued in their relationship with species at risk, migratory birds and bats and other biological and physical components. The LAA for terrestrial habitats and vegetation, included a 50 m corridor on either side of roads required to access turbine sites during construction and operation and along powerline easements; as well as 150 m around turbine bases, substations and ancillary equipment, as shown on Figure E-1.

The Project is located in the greater ecological region known as the Nova Scotia Uplands – Cobequid Hills ecodistrict (Unit 340) (Neily et al. 2017). This ecodistrict is characterized as late successional Acadian shade tolerant hardwood forests (Neily et al. 2017). At higher elevations within this ecodistrict, such as those within the proposed PDA, softwood stands occur on moist, level terrain, with shade tolerant mixed-wood forests found along steep-sided ravines (Neily et al. 2017). Locally, the site consists of only one ecoelement; the Tolerant Hardwood Hills ecoelement, (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, Appendix N). 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).

This appendix details the methods and results of the terrestrial habitat and vegetation assessment surveys that were conducted during the 2021 growing season as part of the Environmental Assessment for the Project. As with all forms of infrastructure development, the conservation and preservation of native vegetation is an important consideration when siting and designing wind power projects. Field surveys to establish a botanical inventory were carried out in consultation with the Nova Scotia Department of Natural Resources and Renewables, Wildlife Division.



WESTCHESTER WIND PROJECT

HABITATS WITHIN THE TERRESTRIAL LOCAL ASSESSMENT AREA

FIGURE E-1

- Proposed Turbine Location
 - Substation
 - Local Assessment Area
 - Watercourse
 - Waterbody
- Habitat (DNR Forest Inventory 2021)**
- Conifer - Dominant Forest
 - Mixed - Wood Forest (including managed sugarbush forest)
 - Hardwood - Dominant Forest
 - Recently Cut Area
 - Blueberry Field
 - Wetland



SCALE 1:20,000

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

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



PROJECT: 21-1329
STATUS: DRAFT
DATE: 2022-02-03

1.1

Scope of Work

To better understand the types and quality of habitat in the area of the proposed project, a baseline study of available vegetation and vegetation communities was conducted within the proposed Project area. The conservation ranks for species identified in the field are obtained from the Atlantic Canada Conservation Data Centre (ACCDC) database. Those ranks (as of December 2021) were then used to assess the rarity of the species observed. This assessment identifies the potential for occurrences of vegetation species at risk or of conservation concern within the LAA of the proposed Project.

The Terrestrial Environment LAA in which the surveys were carried out included 50 m on either side of roads required to access turbine sites during construction and operation and along powerline easements; as well as 150 m around turbine bases, substations and ancillary equipment.

For the purposes of this EA, the vegetation assessment included the following:

- **Vegetation surveys:** A survey of vegetation species present within the LAA by habitat type, along with their regional rarity ranking, that have the potential to be affected by the Project activities;
- **Vegetation of Cultural or Traditional Importance:** Based on the available habitat present at the Project site, a list of vegetation species that are culturally significant from a Mi'kmaq knowledge/use perspective that have the potential to occur in the Project site, as identified by a Mi'kmaq First Nations community member.

2.0 Methods

2.1 Desktop Survey

Prior to the onset of the field surveys, desktop surveys were conducted using the following resources:

- The proponent requested a search of the ACCDC for a list of rare flora within 100 km of the project area. The ACCDC Report is included in **Appendix L** of the main EA Registration Document;
- 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 that are culturally significant to the Mi'kmaq bands Nova Scotia and are believed to likely be present within the Terrestrial LAA of the proposed Project. This report is included in this Appendix; and
- Available mapping was consulted to develop a list of terrestrial habitat types with the potential to be impacted by Project activities and was used to inform the field surveys.

2.2 Field Surveys

Following the desktop surveys, field vegetation surveys were completed to identify and target the major habitat types within the vegetation LAA. Vegetation surveys were conducted on July 27 and 28, 2021 by an experienced plant identification specialist. Vegetation surveys consisted of random meander searches through major habitat types. In addition, terrestrial habitat and vegetation observations were reported on an incidental basis in concert with other targeted field surveys (i.e., wetlands, watercourses, and wildlife and wildlife habitat) throughout 2021.

It is noted that 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, a monitor could not be identified due to timing and COVID-19 health and safety considerations.

3.0 Results

The following habitat types were identified in the LAA for the Terrestrial Environment: hardwood-dominant forests, sugar-bush forest, conifer plantations, blueberry fields and previously disturbed areas, and wetlands. The general locations of terrestrial habitat types within the LAA are shown above on Figure E-1. Representative photos from the identified habitats are included in the Photo plate. The vegetation survey results are provided in Table E-1 by habitat type.

During the 2021 field season, one lichen SAR and one vascular plant SoCC and were identified incidentally during biological field surveys. Eastern waterfan (*Peltigera hydrothyria*) is an aquatic lichen that is listed as 'Threatened' under SARA, COSEWIC and NSESA, in addition, it is ranked S1 by the ACCDC and therefore considered imperilled in Nova Scotia. Additionally, the large purple-fringed orchid (*Platanthera grandiflora*), which is ranked S3 by the ACCDC and considered vulnerable in Nova Scotia, was observed in two wetland locations in 2021. The locations within the LAA where SAR and SoCC plants/lichens were observed are shown on Figure E-2.

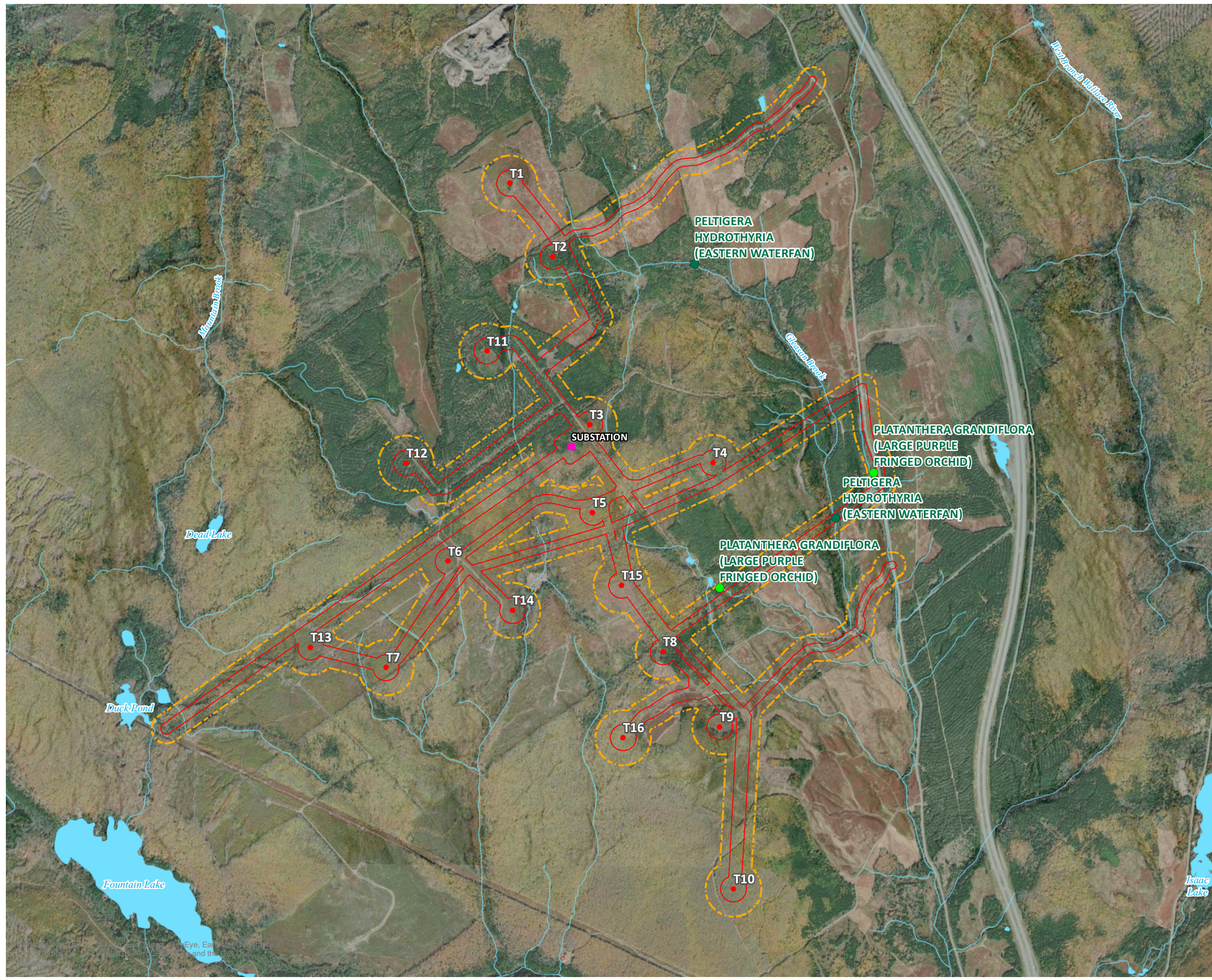
Eastern waterfan was observed at two locations along Gleason Brook in June 2021 (during a Wood Turtle survey) and again in August 2021 (during a wetland assessment). In both instances, the lichen was growing on rocks within the brook.

Large purple-fringed orchids were observed in July 2021 at two locations within the LAA during the wetland field assessments. Approximately 12 plants were observed in a wetland adjacent to Westchester Road and a tributary to Gleason Brook. One additional plant was observed in Wetland 9 (WL-9) which is also adjacent to a tributary to Gleason Brook.

VEGETATION WITHIN THE TERRESTRIAL LOCAL ASSESSMENT AREA

FIGURE E-2

- Potential Turbine Location
 - Substation
 - Project Development Area
 - Local Assessment Area
 - Watercourse
 - Waterbody
- Plant Observation**
- Species at Risk
 - Species of Conservation Concern



SCALE 1:20,000

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

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

Table E-1: Baseline Botanical Inventory based on Habitat Type

Common Name	Scientific Name	Status and S-Rank	Culturally Significant *	Hardwood-Dominant Forest	Mixed-wood and Sugar-bush Forest	Conifer-Dominant Forest and plantation	Blueberry Field/ Disturbed	Wetlands
Balsam Fir	<i>Abies balsamea</i>	S5		X	X		X	X
Striped Maple	<i>Acer pensylvanicum</i>	S5	X	X	X		X	
Red Maple	<i>Acer rubrum</i>	S5		X		X	X	X
Sugar Maple	<i>Acer saccharum</i>	S4S5	X	X	X	X	X	
Mountain Maple	<i>Acer spicatum</i>	S5		X	X			X
Colonial Bent Grass	<i>Agrostis capillaris</i>	SNA					X	
Speckled Alder	<i>Alnus incana</i>	S5					X	X
Smooth Serviceberry	<i>Amelanchier laevis</i>	S5				X		
Pearly Everlasting	<i>Anaphalis margaritacea</i>	S5	X			X	X	
Spreading Dogbane	<i>Apocynum androsaemifolium</i>	S5					X	
Bristly Sarsaparilla	<i>Aralia hispida</i>	S5					X	
Wild Sarsaparilla	<i>Aralia nudicaulis</i>	S5	X	X	X	X	X	
Jack-in-the-pulpit	<i>Arisaema triphyllum</i>	S4S5				X		X
Yellow Birch	<i>Betula alleghaniensis</i>	S5	X	X	X	X	X	X
Paper Birch	<i>Betula papyrifera</i>	S5		X		X		
Gray Birch	<i>Betula populifolia</i>	S5					X	
Northern Shorthusk	<i>Brachyelytrum aristosum</i>	S5			X		X	
Bluejoint Reed Grass	<i>Calamagrostis canadensis</i>	S5					X	
Two-leaved Toothwort	<i>Cardamine diphylla</i>	S4		X				
Black Sedge	<i>Carex arctata</i>	S5		X	X			
Fringed Sedge	<i>Carex crinita</i>	S5		X				X
White-edged Sedge	<i>Carex debilis</i>	S5		X			X	X
Two-seeded Sedge	<i>Carex disperma</i>	S5		X				
Star Sedge	<i>Carex echinata</i>	S5						X
Northern Long Sedge	<i>Carex folliculata</i>	S5						X
Bladder Sedge	<i>Carex intumescens</i>	S5		X		X	X	X
Bristly-stalked Sedge	<i>Carex leptalea</i>	S5					X	X
Finely-Nerved Sedge	<i>Carex leptoneuria</i>	S5		X	X	X		
Sallow Sedge	<i>Carex lurida</i>	S5					X	X
Boreal Bog Sedge	<i>Carex magellanica</i>	S5						X
Pale Sedge	<i>Carex pallescens</i>	S5						X

Common Name	Scientific Name	Status and S-Rank	Culturally Significant *	Hardwood-Dominant Forest	Mixed-wood and Sugar-bush Forest	Conifer-Dominant Forest and plantation	Blueberry Field/ Disturbed	Wetlands
Necklace Sedge	<i>Carex projecta</i>	S5		X				X
Rough Sedge	<i>Carex scabrata</i>	S5						X
Broom Sedge	<i>Carex scoparia</i>	S5					X	
Awl-fruited Sedge	<i>Carex stipata</i>	S5						X
Deep Green Sedge	<i>Carex tonsa</i>	S5					X	
Three-seeded Sedge	<i>Carex trisperma</i>	S5						X
Fireweed	<i>Chamaenerion angustifolium</i>	S5					X	
White Turtlehead	<i>Chelone glabra</i>	S5						X
American Golden Saxifrage	<i>Chrysosplenium americanum</i>	SNA						X
Small Enchanter's Nightshade	<i>Circaea alpina</i>	S5		X	X			X
Bull Thistle	<i>Cirsium vulgare</i>	S5					X	
Interrupted Fern	<i>Claytosmunda claytoniana</i>	S5		X		X	X	
Sweet-fern	<i>Comptonia peregrina</i>	S5	X				X	
Alternate-leaved Dogwood	<i>Cornus alternifolia</i>	S5		X	X	X		
Bunchberry	<i>Cornus canadensis</i>	S5		X		X	X	X
Beaked Hazel	<i>Corylus cornuta</i>	S5	X	X			X	X
Pink Lady's-Slipper	<i>Cypripedium acaule</i>	S5				X		
Poverty Oat Grass	<i>Danthonia spicata</i>	S5				X	X	
Eastern Hay-Scented Fern	<i>Dennstaedtia punctilobula</i>	S5		X				
Northern Panic Grass	<i>Dichanthelium boreale</i>	S5				X	X	
Northern Bush Honeysuckle	<i>Diervilla lonicera</i>	S5					X	
Hairy Flat-top White Aster	<i>Doellingeria umbellata</i>	S5				X	X	X
Crested Wood Fern	<i>Dryopteris cristata</i>	S5						X
Evergreen Wood Fern	<i>Dryopteris intermedia</i>	S5		X		X		X
Marginal Wood Fern	<i>Dryopteris marginalis</i>	S5			X			
Bog Willowherb	<i>Epilobium leptophyllum</i>	S5						X
Marsh Willowherb	<i>Epilobium palustre</i>	S5						X
Helleborine	<i>Epipactis helleborine</i>	SNA						X
Field Horsetail	<i>Equisetum arvense</i>	S5					X	
Canada Horseweed	<i>Erigeron canadensis</i>	S5					X	
Robin Plantain Fleabane	<i>Erigeron pulchellus</i>	SNA					X	
Narrow-leaved Cottongrass	<i>Eriophorum angustifolium</i>	S5						X

Common Name	Scientific Name	Status and S-Rank	Culturally Significant *	Hardwood-Dominant Forest	Mixed-wood and Sugar-bush Forest	Conifer-Dominant Forest and plantation	Blueberry Field/ Disturbed	Wetlands
Common Eyebright	<i>Euphrasia nemorosa</i>	S5					X	
Grass-leaved Goldenrod	<i>Euthamia graminifolia</i>	S5					X	
American Beech	<i>Fagus grandifolia</i>	S5	X	X	X	X		
Fringed Black Bindweed	<i>Fallopia cilinodis</i>	S5			X		X	
Wild Strawberry	<i>Fragaria virginiana</i>	S5	X	X		X		X
Common Hemp-nettle	<i>Galeopsis tetrahit</i>	SNA	X		X			X
Rough Bedstraw	<i>Galium asprellum</i>	S5			X			
Common Marsh Bedstraw	<i>Galium palustre</i>	S5						X
Creeping Snowberry	<i>Gaultheria hispidula</i>	S5	X					X
Water Avens	<i>Geum rivale</i>	S5					X	
Canada Manna Grass	<i>Glyceria canadensis</i>	S5					X	X
Slender Manna Grass	<i>Glyceria melicaria</i>	S4					X	X
Fowl Manna Grass	<i>Glyceria striata</i>	S5					X	X
Marsh Cudweed	<i>Gnaphalium uliginosum</i>	SNA					X	
Checkered Rattlesnake-Plantain	<i>Goodyera tessellata</i>	S4		X				
Common Hawkweed	<i>Hieracium lachenalii</i>	SNA				X	X	
Rough Hawkweed	<i>Hieracium scabrum</i>	S5				X		
Azure Bluet	<i>Houstonia caerulea</i>	SNA					X	
Garden Stonecrop	<i>Hylotelephium telephium</i>	SNA						X
Northern St John's-Wort	<i>Hypericum boreale</i>	S5					X	X
Common St. John's-wort	<i>Hypericum perforatum</i>	SNA					X	X
Virginia St. John's-wort	<i>Hypericum virginicum</i>	S5						X
Pinesap	<i>Hypopitys monotropa</i>	S4				X		
Mountain Holly	<i>Ilex mucronata</i>	S5				X		X
Spotted Jewelweed	<i>Impatiens capensis</i>	S5						X
Soft Rush	<i>Juncus effusus</i>	S5					X	
Slender Rush	<i>Juncus tenuis</i>	S5					X	
Sheep Laurel	<i>Kalmia angustifolia</i>	S5	X			X		
Oxeye Daisy	<i>Leucanthemum vulgare</i>	SNA					X	
Butter-and-Eggs	<i>Linaria vulgaris</i>	SNA					X	
Twinflower	<i>Linnaea borealis</i>	S5				X	X	

Common Name	Scientific Name	Status and S-Rank	Culturally Significant *	Hardwood-Dominant Forest	Mixed-wood and Sugar-bush Forest	Conifer-Dominant Forest and plantation	Blueberry Field/ Disturbed	Wetlands
Inflated Lobelia	<i>Lobelia inflata</i>	S5					X	
Canada Fly Honeysuckle	<i>Lonicera canadensis</i>	S5		X			X	
Common Woodrush	<i>Luzula multiflora</i>	S5		X			X	
American Water Horehound	<i>Lycopus americanus</i>	S5						X
Northern Starflower	<i>Lysimachia borealis</i>	S5		X		X		X
Swamp Yellow Loosestrife	<i>Lysimachia terrestris</i>	S5					X	X
Wild Lily-of-The-Valley	<i>Maianthemum canadense</i>	S5		X		X	X	X
Large False Solomon's Seal	<i>Maianthemum racemosum</i>	S4S5			X			
Ostrich Fern	<i>Matteuccia struthiopteris</i>	S5						X
White Sweet-clover	<i>Melilotus albus</i>	SNA					X	
Naked Bishop's-Cap	<i>Mitella nuda</i>	S4S5	X					X
Convulsion-Root	<i>Monotropa uniflora</i>	S5				X		X
Small Forget-Me-Not	<i>Myosotis laxa</i>	S5						X
Three-leaved Rattlesnakeroot	<i>Nabalus trifoliolatus</i>	S5				X	X	
Canada Toadflax	<i>Nuttallanthus canadensis</i>	SNA					X	
Whorled Wood Aster	<i>Oclemena acuminata</i>	S5		X	X	X		X
Common Evening Primrose	<i>Oenothera biennis</i>	S5					X	
Sensitive Fern	<i>Onoclea sensibilis</i>	S5				X		X
Cinnamon Fern	<i>Osmundastrum cinnamomeum</i>	S5						X
Common Wood Sorrel	<i>Oxalis montana</i>	S5		X	X			X
European Wood Sorrel	<i>Oxalis stricta</i>	S5				X		X
Schweinitz's Groundsel	<i>Packera schweinitziana</i>	S4						X
New York Fern	<i>Parathelypteris noveboracensis</i>	S5		X			X	X
Eastern Waterfan	<i>Peltigera hydrothyria</i>	S1 SARA: T COSOWIC: T NSES: T						X
Arrow-leaved Smartweed	<i>Persicaria sagittata</i>	S5					X	X
Northern Beech Fern	<i>Phegopteris connectilis</i>	S5		X	X	X		
Norway Spruce	<i>Picea abies</i>	SNA				X	X	
White Spruce	<i>Picea glauca</i>	S5					X	X
Red Spruce	<i>Picea rubens</i>	S5	X	X		X	X	
Mouse-ear Hawkweed	<i>Pilosella officinarum</i>	SNA					X	

Common Name	Scientific Name	Status and S-Rank	Culturally Significant *	Hardwood-Dominant Forest	Mixed-wood and Sugar-bush Forest	Conifer-Dominant Forest and plantation	Blueberry Field/ Disturbed	Wetlands
Eastern White Pine	<i>Pinus strobus</i>	S5	X				X	
Common Plantain	<i>Plantago major</i>	SNA	X				X	
White Fringed Orchid	<i>Platanthera blephariglottis</i>	S4						X
Club Spur Orchid	<i>Platanthera clavellata</i>	S5						X
Large Purple Fringed Orchid	<i>Platanthera grandiflora</i>	S3						X
May-apple	<i>Podophyllum peltatum</i>	SNA					X	
Trembling Aspen	<i>Populus tremuloides</i>	S5					X	
Rough Cinquefoil	<i>Potentilla norvegica</i>	S5					X	
Old Field Cinquefoil	<i>Potentilla simplex</i>	S5					X	
Common Self-heal	<i>Prunella vulgaris</i>	S5				X	X	X
Pin Cherry	<i>Prunus pensylvanica</i>	S5	X		X	X	X	
Black Cherry	<i>Prunus serotina</i>	S5					X	
Chokecherry	<i>Prunus virginiana</i>	S5	X					X
Bracken Fern	<i>Pteridium aquilinum</i>	S5				X	X	
Northern Red Oak	<i>Quercus rubra</i>	S5						X
Creeping Buttercup	<i>Ranunculus repens</i>	SNA				X		X
Skunk Currant	<i>Rhododendron canadense</i>	S5						X
White Beakrush	<i>Rhynchospora alba</i>	S5		X				
Smooth Gooseberry	<i>Ribes glandulosum</i>	S5		X			X	X
Brown Beakrush	<i>Ribes hirtellum</i>	S5						X
Virginia Rose	<i>Rosa virginiana</i>	S5					X	X
Alleghaney Blackberry	<i>Rubus allegheniensis</i>	S5	X				X	X
Bristly Dewberry	<i>Rubus hispidus</i>	S5					X	
Red Raspberry	<i>Rubus idaeus</i>	S5	X				X	X
Dwarf Red Raspberry	<i>Rubus pubescens</i>	S5	X	X				X
Curled Dock	<i>Rumex crispus</i>	SNA						X
Western Dock	<i>Rumex occidentalis</i>	SNA					X	
Bebb's Willow	<i>Salix bebbiana</i>	S5				X		
Balsam Willow	<i>Salix pyrifolia</i>	S5					X	
Common Elderberry	<i>Sambucus canadensis</i>	S5	X					X
Red Elderberry	<i>Sambucus racemosa</i>	S5	X				X	
Common Woolly Bulrush	<i>Scirpus cyperinus</i>	S5					X	X

Common Name	Scientific Name	Status and S-Rank	Culturally Significant *	Hardwood-Dominant Forest	Mixed-wood and Sugar-bush Forest	Conifer-Dominant Forest and plantation	Blueberry Field/ Disturbed	Wetlands
Mosquito Bulrush	<i>Scirpus hattorianus</i>	S5					X	
Small-fruited Bulrush	<i>Scirpus microcarpus</i>	S5						X
Autumn Hawkbit	<i>Scorzoneroides autumnalis</i>	SNA					X	
Marsh Skullcap	<i>Scutellaria galericulata</i>	S5						X
Canada Goldenrod	<i>Solidago canadensis</i>	S4S5						X
Gray-stemmed Goldenrod	<i>Solidago nemoralis</i>	S4S5					X	
Rough-stemmed Goldenrod	<i>Solidago rugosa</i>	S5				X	X	X
Prickly Sow Thistle	<i>Sonchus asper</i>	SNA					X	
American Mountain Ash	<i>Sorbus americana</i>	S5	X			X	X	
White Meadowsweet	<i>Spiraea alba</i>	S5					X	X
Prairie Cordgrass	<i>Sporobolus michauxianus</i>	S5					X	
Calico Aster	<i>Symphyotrichum lateriflorum</i>	S5					X	
Purple-stemmed Aster	<i>Symphyotrichum puniceum</i>	S5					X	X
Common Dandelion	<i>Taraxacum officinale</i>	SNA					X	
Canada Yew	<i>Taxus canadensis</i>	S4S5						X
Tall Meadow-Rue	<i>Thalictrum pubescens</i>	S5						X
Rabbit's-foot Clover	<i>Trifolium arvense</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	
White Clover	<i>Trifolium repens</i>	SNA					X	
Nodding Trillium	<i>Trillium cernuum</i>	S4					X	X
Broad-leaved Cattail	<i>Typha latifolia.</i>	S5						X
Late Lowbush Blueberry	<i>Vaccinium angustifolium</i>	S5	X			X	X	X
Velvet-leaved Blueberry	<i>Vaccinium myrtilloides</i>	S5	X			X	X	
Common Speedwell	<i>Veronica officinalis</i>	SNA		X	X	X	X	
Hobblebush	<i>Viburnum lantanoides</i>	S4S5		X	X			
Northern Wild Raisin	<i>Viburnum nudum</i>	S5	X					X
Tufted Vetch	<i>Vicia cracca</i>	SNA					X	

Photo Plate

Hardwood- Dominant Forest (April 28-2021)



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



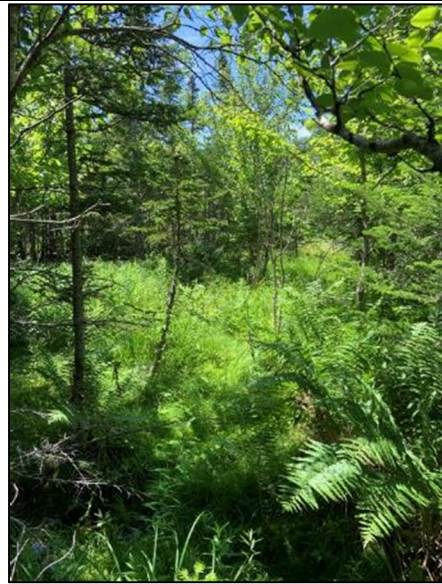
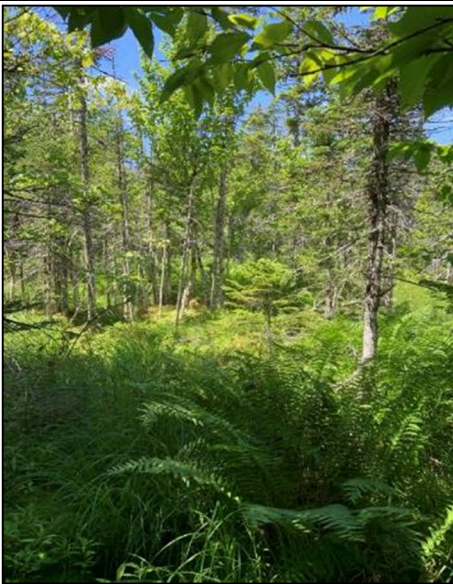
Sugar-bush Forest (April 28, 2021)



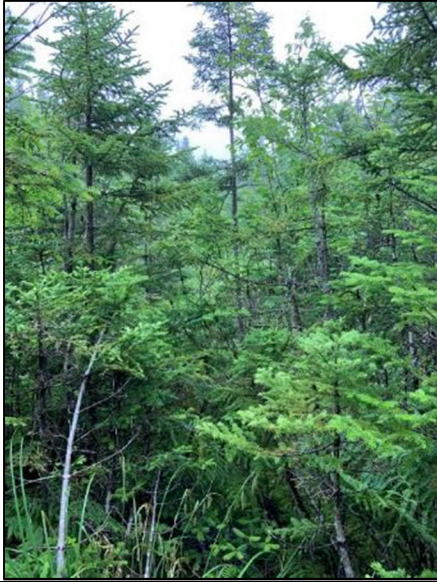
Blueberry Field/Disturbed Area (April 28, 2021)



Bogs and Fens



Swamps and Marshes



Large Purple Fringed Orchid (July 15, 2021)



Eastern WaterFan in Gleason Brook



June 7, 2021



August 25, 2021

4.0

References

Neily, P., Basquill, S., Quigley, E., & Keys, K. (2017). Ecological Land Classification for Nova Scotia. Nova Scotia Department of Natural Resources Renewable Resources Branch.

November 10, 2021

Attention: Regan Kelly

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

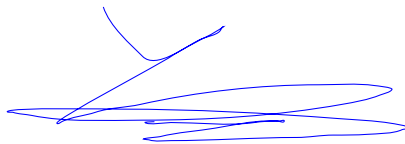
Dear Regan,

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 Westchester Wind Project Site Plan

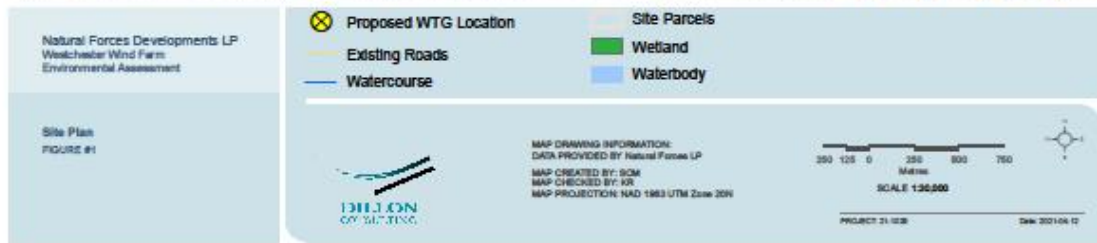
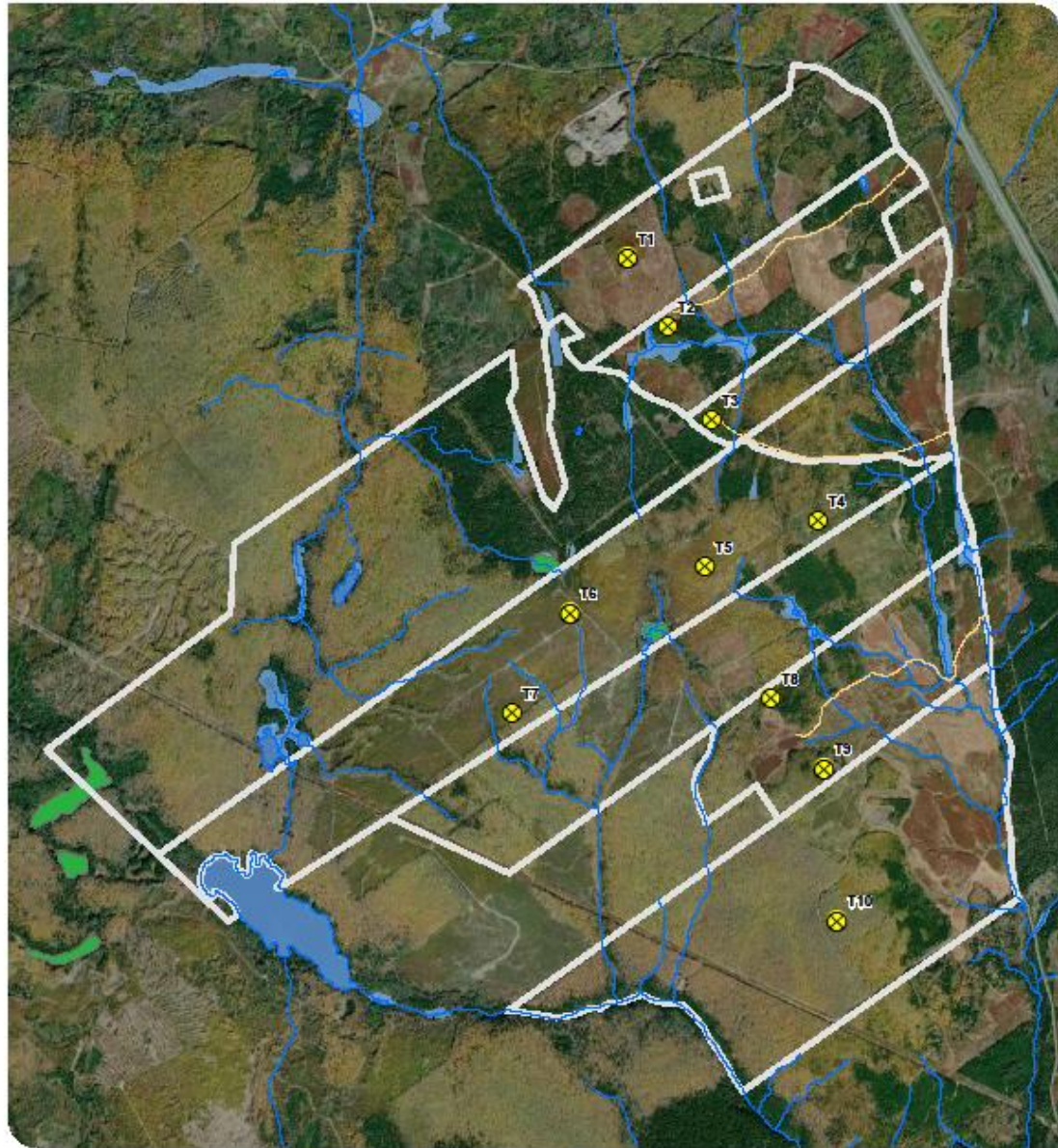




Table 1 – Culturally significant flora to the Mi'kmaq Nation likely within the Site Plans of Benjamin Mills and Westchester Wind Farms

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>Wapog</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>