Appendix G:

Vascular Plant Study



FLORA ASSESSMENT GAETZ BROOK COMMUNITY WIND FARM

October 15, 2012



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1.0 INTRODUCTION

Strum Environmental completed a Desktop Review and Field Survey for the Gaetz Brook Community Wind Farm (the Project), on behalf of Natural Forces Technologies Inc. The objective of this study was to determine whether any rare plants exist at the Project site in order to support Natural Forces Technologies Inc. in the planning stages of the wind farm development.

2.0 SITE DETAILS

Natural Forces Technologies Inc. has proposed the development of a single turbine, 2 MW wind farm at Gaetz Brook, located in Halifax County, Nova Scotia (Drawing 1, Appendix A). The Project site borders Highway 107 approximately 1.3 km south of the community of Gaetz Brook and consists of one parcel of land identified by Property Identification Number (PID) 00614167. The Project site encompasses approximately 100 acres of privately owned, vacant land incorporating multiple woods roads. The preliminary design consists of one wind turbine generator located in a cleared area in the eastern half of the site, as well as three potential access road options (Drawing 2, Appendix A).

3.0 METHODOLOGY

Prior to undertaking the field survey, the Atlantic Canada Conservation Data Centre (ACCDC) database was reviewed to compile a list of recorded observations of flora species within 100 km of the Project site. This preliminary list was then used to develop a short list of plant species of conservation interest that may be present at the Project site. For the purpose of this assessment, plant species of conservation interest included:

- Species listed as "Red" or "Yellow" under the Nova Scotia Department of Natural Resources (NSDNR) General Status Ranks of Wild Species in Nova Scotia;
- Species assessed as endangered, threatened, or of special concern by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC);
 Species ranked as endangered, threatened, or of special concern under the Species at Risk Act (SARA); and/or
- Species protected under the Nova Scotia Endangered Species Act.

The results of the desktop review were then used by botanists to develop a field assessment strategy based on site habitat.

A vascular plant survey was completed in August 2012 within a designated survey area. The survey was designed to focus on those areas of the Project site associated with the proposed turbine location and access road options (Drawing 2, Appendix A). The survey area included a 30 m wide easement along the proposed road options, and approximately 2 Ha at the proposed turbine location.



4.0 RESULTS

Results of the desktop review indicated that 250 vascular flora species have been identified within 100 km of the Project site. Of the 250 vascular plant species identified by ACCDC, 168 vascular flora species of conservation interest were identified within 100 km of the Project site (Table 1, Appendix B).

The vascular plant survey encompassed four habitat types: roadside / disturbed areas; regenerating forests; upland forests; and wetlands. A complete list of vascular plant species identified during the survey is provided in Table 2, Appendix B. Representative photos are provided in Appendix C.

4.1 Roadsides and Disturbed Areas

Roadsides have diverse weedy plant communities of annuals and short-lived perennials. Depressions in these areas form pools and ditches which feature cattails (*Typha latifolia*), woolgrass (*Scirpus cyperinus*), bone set (*Eupatorium perfoliatum*) and spikerush (*Eleocharis ovata*). Grassland communities were encountered which were composed primarily of exotic species [e.g., creeping white clover (*Trifolium repens*), red clover (*T. pretense*), *T. dubium*, timothy grass (*Phleum arvense*), sheeps fescue (*Festuca ovina*), mouse-eared hawkweed (*Hieracium pilosella*), and knapweed (*Centaurea nigra*)]. Such disturbed grasslands often have uncommon native orchids, however, these areas were searched and no plants of uncommon or rare ranking were discovered.

4.2 Regenerating Forests

Away from zones of disturbance, the landscape has been clearcut and regrowth is dominated by shrubs [sheep laurel (*Kalmia angustifolia*), lowbush blueberry (*Vaccinium angustifolium*), velvet-leaf blueberry (*V. myrtilloides*), and false holly (*Nemopanthus mucronata*)], herbs [bracken fern (*Pteridium aquilinum*)], wild sarsaparilla (*Aralia nudicaulis*), bunchberry (*Cornus Canadensis*), and pink lady's-slipper (*Cyprepedium acaule*)], and trees [red maple (*Acer rubrum*), balsam fir (*Abies balsamea*),white spruce (*Picea glauca*)]. In wetter regrowth areas, vegetation was somewhat different and included shrubs [false holly, Canada holly (*Ilex verticillata*), black huckleberry (*Gaylusacia baccata*), foxberry (*Vaccinium vitis-idaea*), Blanchard's dewberry (*Rubus recurvicularis*)], herbs [cinnamon fern (*Osmunda cinnamomea*), clintonia lily (*Clintonia borealis*, Canada mayflower (*Maianthemum canadense*), teaberry (*Gaultheria hispidula*), three seeded sedge (*Carex trisperma*), *Carex canescens*], and trees [eastern larch (*Larix laricina*) and black spruce (*Picea mariana*)].

4.3 Upland Forests

Upland forest habitats were, in general, of low diversity and of early successional stage. Typical forest cover was made up of balsam fir, red maple, and spruce (white and/or red). There were usually clearings in these stands where a dense growth of hay-scented fern dominated.

Except for wetland areas, forest soils were not rich. Where soils were richer, yellow birch (Betula allegheniensis) was more common.



4.4 Wetlands

Wetlands consisted of red maple/eastern larch associations with a speckled alder (Alnus incana), balsam fir, black spruce, eastern larch, and false holly understory. A diversity in wetland conditions throughout the survey area was observed. Some of the larger areas incorporated a range of flooding conditions that included bare muck areas. Woody cover was generally red maple and eastern larch with an understory of speckled alder. Common herbs include rattlesnake grass (Glyceria canadensis), tall meadow rue (Thalictrum pubescens), and cinnamon fern. Treed swamps of balsam fir, black spruce, and eastern larch had a range of hydrological indicators including imperfectly drained soils and standing water around tip-ups of old balsam fir trees that supported burreed (Sparganium americanum), three-seeded sedge, and crested fern (Dryopteris cristata). A larch/red maple swamp located in northwestern portions of the Project site showed signs of previous landscape disturbance as the area had large amounts of cattail and softrush (Juncus effusus). Evidence of black spruce, eastern larch and false holly associations may represent swamp/treed fen transitions in wetter portions of the site. Other common species within the wetlands included leatherleaf (Chamaedaphne calyculata), witherod (Viburnum nudum), speckled alder, rhodora (Rhododendron canadense), and Canada holly.

Sphagnum cover was widespread throughout wetlands and a collection of wetland plants [e.g., three seeded sedge, cinnamon fern, and bog willow-herb (*Epilobium leptophyllum*)] grew with wet woodland plants [e.g. wood sorrel (*Oxalis montana*),blue violet (*Viola cucculata*), starflower (*Trientalis borealis*), and whorled aster (*Oclemena acuminata*)].

4.5 Proposed Turbine Location

The habitat surrounding the proposed wind turbine is balsam fir woodland coinciding with red maple and red spruce subordinates. The forest is immature and large stumps from the former tree cohort are in evidence. The ground flora consists of small herbs [rose twisted stalk (*Streptopus roseus*), *starflower*, partridge berry (*Mitchella repens*), one sided wintergreen (*Orthilia secunda*), ghost plant (*Monotropa uniflora*), dutchman's pipe (*Monotropa hypopithys*), and snowberry], ferns [wood fern (*Dryopteris intermedia*) and cinnamon fern], and occasional shrubs (leatherleaf and false holly). A deep layer of schreber's moss (*Pleurozium shreberi*) and patches of *Bazania* sp. were also present.

5.0 CONCLUSIONS

No vascular plant species of conservation interest were observed during the plant survey. This includes federal *SARA*-listed and COSEWIC assessed species, species listed under the *Nova Scotia Endangered Species Act*, and Red and Yellow-listed species under the NSDNR General Status Ranks of Wild Species in Nova Scotia.



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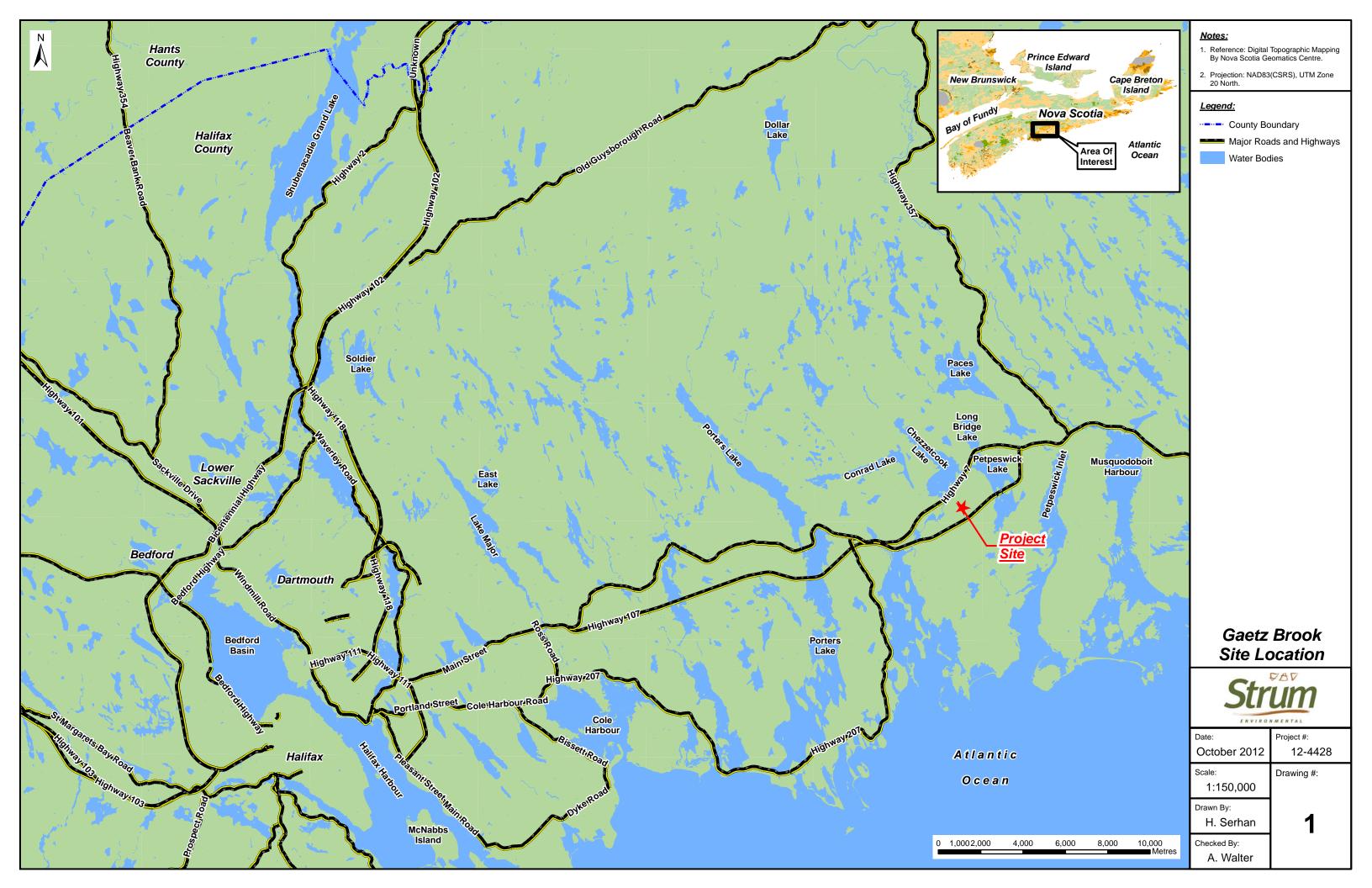
6.0 CLOSURE

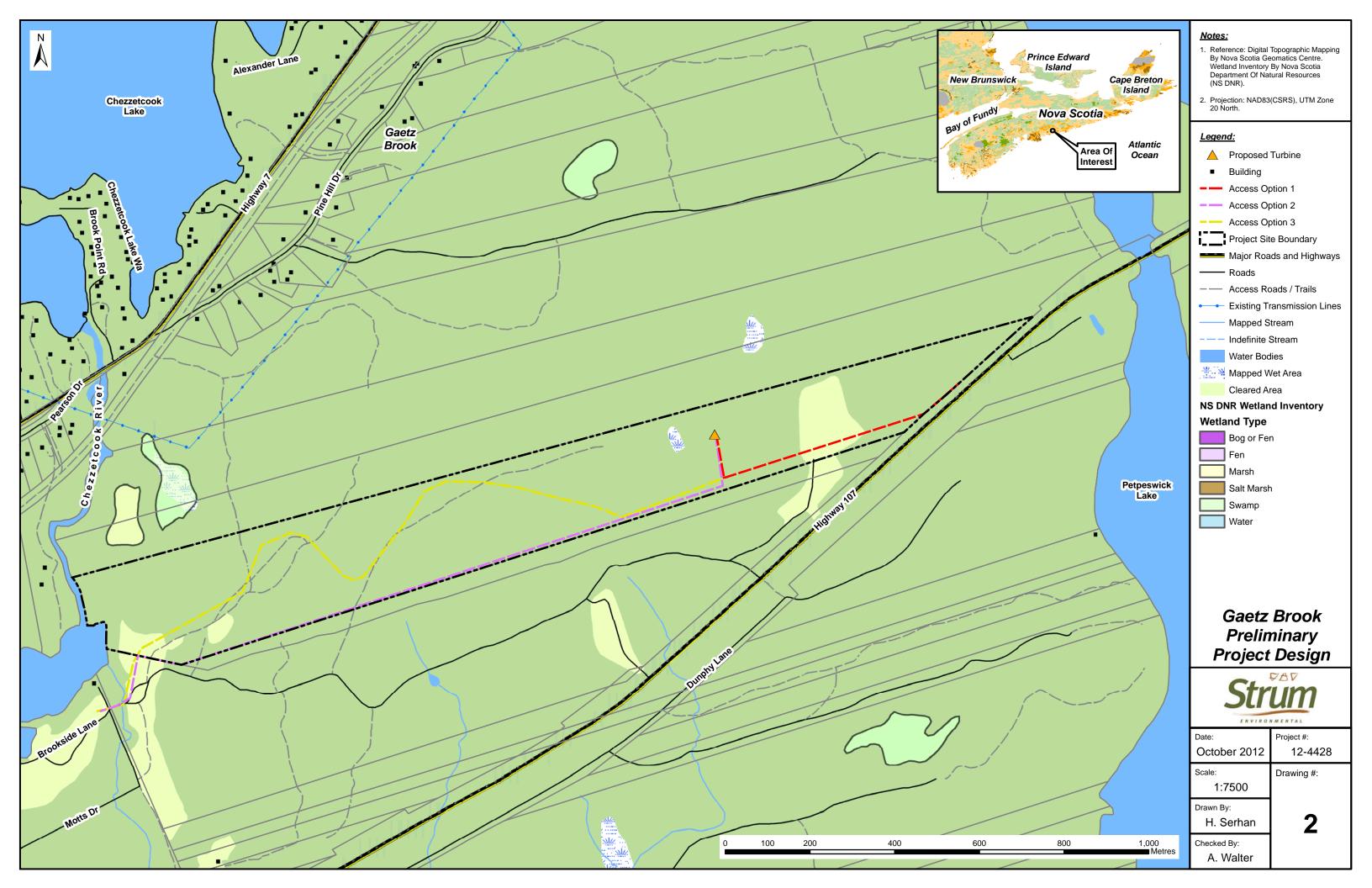
This report has been completed for the sole benefit of Natural Forces Technologies Inc. Any other person or entity may not rely on this report without the express written consent of Strum Environmental and Natural Forces Technologies Inc.

The conclusions presented in this report represent the best judgement of the assessor based on the current environmental standards. The assessor is unable to certify against undiscovered environmental liabilities due to the nature of the investigation and the limited data available.



APPENDIX A DRAWINGS





APPENDIX B PLANT TABLES

| Common Name | Scientific Name | NSDNR Status | COSEWIC Status | SARA Status | NSESA Status |
|----------------------------|----------------------------|--------------|----------------|-------------|--------------|
| Acadian Quillwort | Isoetes acadiensis | Yellow | Not Listed | Not Listed | Not Listed |
| Alder-leaved Buckthorn | Rhamnus alnifolia | Yellow | Not Listed | Not Listed | Not Listed |
| Alpine Bilberry | Vaccinium uliginosum | Yellow | Not Listed | Not Listed | Not Listed |
| American False Pennyroyal | Hedeoma pulegioides | Yellow | Not Listed | Not Listed | Not Listed |
| Appalachian Polypody | Polypodium appalachianum | Undetermined | Not Listed | Not Listed | Not Listed |
| Bearded Sedge | Carex comosa | Yellow | Not Listed | Not Listed | Not Listed |
| Bebb's Sedge | Carex bebbii | Red | Not Listed | Not Listed | Not Listed |
| Big-leaved Marsh-elder | Iva frutescens | Yellow | Not Listed | Not Listed | Not Listed |
| Black Ash | Fraxinus nigra | Yellow | Not Listed | Not Listed | Not Listed |
| Blood Milkwort | Polygala sanguinea | Yellow | Not Listed | Not Listed | Not Listed |
| Blue Cohosh | Caulophyllum thalictroides | Red | Not Listed | Not Listed | Not Listed |
| Bog Willow | Salix pedicellaris | Yellow | Not Listed | Not Listed | Not Listed |
| Boreal Aster | Symphyotrichum boreale | Yellow | Not Listed | Not Listed | Not Listed |
| Bristle-leaved Sedge | Carex eburnea | Yellow | Not Listed | Not Listed | Not Listed |
| Broad-Glumed Brome | Bromus latiglumis | Red | Not Listed | Not Listed | Not Listed |
| Buttonbush Dodder | Cuscuta cephalanthi | Red | Not Listed | Not Listed | Not Listed |
| Canada Anemone | Anemone canadensis | Red | Not Listed | Not Listed | Not Listed |
| Canada Germander | Teucrium canadense | Yellow | Not Listed | Not Listed | Not Listed |
| Canada Lily | Lilium canadense | Yellow | Not Listed | Not Listed | Not Listed |
| Canada Rice Grass | Piptatherum canadense | Yellow | Not Listed | Not Listed | Not Listed |
| Canada Tick-trefoil | Desmodium canadense | Red | Not Listed | Not Listed | Not Listed |
| Canada Wood Nettle | Laportea canadensis | Yellow | Not Listed | Not Listed | Not Listed |
| Case's Ladies'-Tresses | Spiranthes casei | Yellow | Not Listed | Not Listed | Not Listed |
| Chestnut Sedge | Carex castanea | Red | Not Listed | Not Listed | Not Listed |
| Chinese Hemlock-parsley | Conioselinum chinense | Yellow | Not Listed | Not Listed | Not Listed |
| Clammy Hedge-Hyssop | Gratiola neglecta | Yellow | Not Listed | Not Listed | Not Listed |
| Climbing False Buckwheat | Fallopia scandens | Yellow | Not Listed | Not Listed | Not Listed |
| Clustered Sanicle | Sanicula odorata | Red | Not Listed | Not Listed | Not Listed |
| Comb-leaved Mermaidweed | Proserpinaca pectinata | Yellow | Not Listed | Not Listed | Not Listed |
| Common Moonwort | Botrychium lunaria | Red | Not Listed | Not Listed | Not Listed |
| Cuckoo Flower | Cardamine pratensis | Red | Not Listed | Not Listed | Not Listed |
| Cursed Buttercup | Ranunculus sceleratus | Red | Not Listed | Not Listed | Not Listed |
| Cut-Leaved Coneflower | Rudbeckia laciniata | Yellow | Not Listed | Not Listed | Not Listed |
| Disguised St John's-wort | Hypericum dissimulatum | Yellow | Not Listed | Not Listed | Not Listed |
| Downy Rattlesnake-Plantain | Goodyera pubescens | Red | Not Listed | Not Listed | Not Listed |
| Downy Willowherb | Epilobium strictum | Yellow | Not Listed | Not Listed | Not Listed |
| Drummond's Rockcress | Arabis drummondii | Yellow | Not Listed | Not Listed | Not Listed |
| Dudley's Rush | Juncus dudleyi | Yellow | Not Listed | Not Listed | Not Listed |
| Dwarf Bilberry | Vaccinium caespitosum | Yellow | Not Listed | Not Listed | Not Listed |
| Dwarf Clearweed | Pilea pumila | Red | Not Listed | Not Listed | Not Listed |



| Common Name | Scientific Name | NSDNR Status | COSEWIC Status | SARA Status | NSESA Status |
|--------------------------------|---------------------------|--------------|----------------|-------------|--------------|
| Eastern Leatherwood | Dirca palustris | Red | Not Listed | Not Listed | Not Listed |
| Eastern White Cedar | Thuja occidentalis | Red | Not Listed | Not Listed | Vulnerable |
| False Mermaidweed | Floerkea proserpinacoides | Yellow | Not at Risk | Not Listed | Not Listed |
| Farwell's Water Milfoil | Myriophyllum farwellii | Yellow | Not Listed | Not Listed | Not Listed |
| Five-angled Dodder | Cuscuta pentagona | Undetermined | Not Listed | Not Listed | Not Listed |
| Flat-stemmed Pondweed | Potamogeton zosteriformis | Yellow | Not Listed | Not Listed | Not Listed |
| Fragrant Wood Fern | Dryopteris fragrans | Yellow | Not Listed | Not Listed | Not Listed |
| Fries' Pondweed | Potamogeton friesii | Red | Not Listed | Not Listed | Not Listed |
| Fringed Blue Aster | Symphyotrichum ciliolatum | Yellow | Not Listed | Not Listed | Not Listed |
| Garber's Sedge | Carex garberi | Red | Not Listed | Not Listed | Not Listed |
| Glaucous Blue Grass | Poa glauca | Yellow | Not Listed | Not Listed | Not Listed |
| Golden Alexanders | Zizia aurea | Red | Not Listed | Not Listed | Not Listed |
| Grass-leaved Rush | Juncus marginatus | Yellow | Not Listed | Not Listed | Not Listed |
| Green Spleenwort | Asplenium viride | Yellow | Not Listed | Not Listed | Not Listed |
| Greene's Rush | Juncus greenei | Red | Not Listed | Not Listed | Not Listed |
| Greenland Stitchwort | Minuartia groenlandica | Yellow | Not Listed | Not Listed | Not Listed |
| Hairy Goldenrod | Solidago hispida | Red | Not Listed | Not Listed | Not Listed |
| Hairy Lettuce | Lactuca hirsuta | Yellow | Not Listed | Not Listed | Not Listed |
| Hayden's Sedge | Carex haydenii | Red | Not Listed | Not Listed | Not Listed |
| Heart-leaved Foamflower | Tiarella cordifolia | Yellow | Not Listed | Not Listed | Not Listed |
| Houghton's Sedge | Carex houghtoniana | Yellow | Not Listed | Not Listed | Not Listed |
| Hyssop-leaved Fleabane | Erigeron hyssopifolius | Yellow | Not Listed | Not Listed | Not Listed |
| Labrador Bedstraw | Galium labradoricum | Yellow | Not Listed | Not Listed | Not Listed |
| Large Round-Leaved Orchid | Platanthera macrophylla | Yellow | Not Listed | Not Listed | Not Listed |
| Large St John's-wort | Hypericum majus | Red | Not Listed | Not Listed | Not Listed |
| Large Tick-Trefoil | Desmodium glutinosum | Red | Not Listed | Not Listed | Not Listed |
| Least Moonwort | Botrychium simplex | Yellow | Not Listed | Not Listed | Not Listed |
| Lesser Brown Sedge | Carex adusta | Yellow | Not Listed | Not Listed | Not Listed |
| Lesser Pyrola | Pyrola minor | Yellow | Not Listed | Not Listed | Not Listed |
| Lesser Rattlesnake-plantain | Goodyera repens | Yellow | Not Listed | Not Listed | Not Listed |
| Limestone Scurvy-grass | Cochlearia tridactylites | Red | Not Listed | Not Listed | Not Listed |
| Livid Sedge | Carex livida | Red | Not Listed | Not Listed | Not Listed |
| Long-bracted Frog Orchid | Coeloglossum viride | Red | Not Listed | Not Listed | Not Listed |
| Long-branched Frostweed | Helianthemum canadense | Red | Not Listed | Not Listed | Not Listed |
| Long-leaved Starwort | Stellaria longifolia | Yellow | Not Listed | Not Listed | Not Listed |
| Maidenhair Spleenwort | Asplenium trichomanes | Yellow | Not Listed | Not Listed | Not Listed |
| Marsh Bellflower | Campanula aparinoides | Yellow | Not Listed | Not Listed | Not Listed |
| Meadow Horsetail | Equisetum pratense | Yellow | Not Listed | Not Listed | Not Listed |
| Mistassini Primrose | Primula mistassinica | Yellow | Not Listed | Not Listed | Not Listed |
| Narrow-leaved Evening Primrose | Oenothera fruticosa | Undetermined | Not Listed | Not Listed | Not Listed |



| Common Name | Scientific Name | NSDNR Status | COSEWIC Status | SARA Status | NSESA Status |
|------------------------------|-----------------------------|--------------|-----------------|-----------------|--------------|
| Narrow-leaved Panic Grass | Dichanthelium linearifolium | Yellow | Not Listed | Not Listed | Not Listed |
| Newfoundland Dwarf Birch | Betula michauxii | Yellow | Not Listed | Not Listed | Not Listed |
| Nodding Fescue | Festuca subverticillata | Red | Not Listed | Not Listed | Not Listed |
| Northern Adder's-tongue | Ophioglossum pusillum | Yellow | Not Listed | Not Listed | Not Listed |
| Northern Bedstraw | Galium boreale | Red | Not Listed | Not Listed | Not Listed |
| Northern Blueberry | Vaccinium boreale | Red | Not Listed | Not Listed | Not Listed |
| Northern Bog Violet | Viola nephrophylla | Yellow | Not Listed | Not Listed | Not Listed |
| Northern Comandra | Geocaulon lividum | Yellow | Not Listed | Not Listed | Not Listed |
| Northern Firmoss | Huperzia selago | Undetermined | Not Listed | Not Listed | Not Listed |
| Northern Maidenhair Fern | Adiantum pedatum | Red | Not Listed | Not Listed | Not Listed |
| Orange-fruited Tinker's Weed | Triosteum aurantiacum | Yellow | Not Listed | Not Listed | Not Listed |
| Ovate Spikerush | Eleocharis ovata | Yellow | Not Listed | Not Listed | Not Listed |
| Pale-Spiked Lobelia | Lobelia spicata | Red | Not Listed | Not Listed | Not Listed |
| Parlin's Pussytoes | Antennaria parlinii | Red | Not Listed | Not Listed | Not Listed |
| Peck's Sedge | Carex peckii | Red | Not Listed | Not Listed | Not Listed |
| Pennsylvania Sedge | Carex pensylvanica | Undetermined | Not Listed | Not Listed | Not Listed |
| Philadelphia Fleabane | Erigeron philadelphicus | Yellow | Not Listed | Not Listed | Not Listed |
| Pinebarren Golden Heather | Hudsonia ericoides | Yellow | Not Listed | Not Listed | Not Listed |
| Pink Crowberry | Empetrum eamesii | Yellow | Not Listed | Not Listed | Not Listed |
| Plantain-Leaved Sedge | Carex plantaginea | Red | Not Listed | Not Listed | Not Listed |
| Porcupine Sedge | Carex hystericina | Red | Not Listed | Not Listed | Not Listed |
| Prickly Hornwort | Ceratophyllum echinatum | Red | Not Listed | Not Listed | Not Listed |
| Prototype Quillwort | Isoetes prototypus | Yellow | Special Concern | Special Concern | Vulnerable |
| Pubescent Sedge | Carex hirtifolia | Yellow | Not Listed | Not Listed | Not Listed |
| Purple-veined Willowherb | Epilobium coloratum | Yellow | Not Listed | Not Listed | Not Listed |
| Quebec Hawthorn | Crataegus submollis | Undetermined | Not Listed | Not Listed | Not Listed |
| Racemed Milkwort | Polygala polygama | Undetermined | Not Listed | Not Listed | Not Listed |
| Ram's-Head Lady's-Slipper | Cypripedium arietinum | Red | Not Listed | Not Listed | Endangered |
| Red Ash | Fraxinus pennsylvanica | Red | Not Listed | Not Listed | Not Listed |
| Robinson's Hawkweed | Hieracium robinsonii | Yellow | Not Listed | Not Listed | Not Listed |
| Robinson's Hawthorn | Crataegus robinsonii | Undetermined | Not Listed | Not Listed | Not Listed |
| Rock Spikemoss | Selaginella rupestris | Red | Not Listed | Not Listed | Not Listed |
| Roland's Sea-Blite | Suaeda rolandii | Red | Not Listed | Not Listed | Not Listed |
| Round-lobed Hepatica | Anemone americana | Red | Not Listed | Not Listed | Not Listed |
| Rugel's Plantain | Plantago rugelii | Undetermined | Not Listed | Not Listed | Not Listed |
| Saltmarsh Alkali Grass | Puccinellia fasciculata | Undetermined | Not Listed | Not Listed | Not Listed |
| Saltmarsh Starwort | Stellaria humifusa | Yellow | Not Listed | Not Listed | Not Listed |
| Seabeach Ragwort | Senecio pseudoarnica | Yellow | Not Listed | Not Listed | Not Listed |
| Sharp-fruited Knotweed | Polygonum oxyspermum | Undetermined | Not Listed | Not Listed | Not Listed |
| Sharp-fruited Rush | Juncus acuminatus | Yellow | Not Listed | Not Listed | Not Listed |



| Common Name | Scientific Name | NSDNR Status | COSEWIC Status | SARA Status | NSESA Status |
|----------------------------|----------------------------|--------------|-----------------|-----------------|--------------|
| Shining Ladies'-Tresses | Spiranthes lucida | Red | Not Listed | Not Listed | Not Listed |
| Short-awned Foxtail | Alopecurus aequalis | Yellow | Not Listed | Not Listed | Not Listed |
| Showy Lady's-Slipper | Cypripedium reginae | Red | Not Listed | Not Listed | Not Listed |
| Silky Willow | Salix sericea | Red | Not Listed | Not Listed | Not Listed |
| Slender Cottongrass | Eriophorum gracile | Yellow | Not Listed | Not Listed | Not Listed |
| Small-flowered Bittercress | Cardamine parviflora | Yellow | Not Listed | Not Listed | Not Listed |
| Smooth Cliff Fern | Woodsia glabella | Yellow | Not Listed | Not Listed | Not Listed |
| Smooth Sweet Cicely | Osmorhiza longistylis | Red | Not Listed | Not Listed | Not Listed |
| Soapberry | Shepherdia canadensis | Yellow | Not Listed | Not Listed | Not Listed |
| Southern Mudwort | Limosella australis | Yellow | Not Listed | Not Listed | Not Listed |
| Southern Twayblade | Listera australis | Red | Not Listed | Not Listed | Not Listed |
| Spotted Pondweed | Potamogeton pulcher | Red | Not Listed | Not Listed | Not Listed |
| Spreading Wild Rye | Elymus hystrix | Red | Not Listed | Not Listed | Not Listed |
| Squashberry | Viburnum edule | Yellow | Not Listed | Not Listed | Not Listed |
| Stalked Bulrush | Scirpus pedicellatus | Undetermined | Not Listed | Not Listed | Not Listed |
| Steller's Rockbrake | Cryptogramma stelleri | Red | Not Listed | Not Listed | Not Listed |
| Sweet Pepperbush | Clethra alnifolia | Yellow | Special Concern | Special Concern | Vulnerable |
| Sweet Wood Reed Grass | Cinna arundinacea | Red | Not Listed | Not Listed | Not Listed |
| Tender Sedge | Carex tenera | Yellow | Not Listed | Not Listed | Not Listed |
| Thread-Like Naiad | Najas gracillima | Red | Not Listed | Not Listed | Not Listed |
| Triangle Moonwort | Botrychium lanceolatum | Yellow | Not Listed | Not Listed | Not Listed |
| Triangular-valve Dock | Rumex triangulivalvis | Yellow | Not Listed | Not Listed | Not Listed |
| Tubercled Orchid | Platanthera flava | Yellow | Not Listed | Not Listed | Not Listed |
| Tuckerman's Panic Grass | Panicum tuckermanii | Yellow | Not Listed | Not Listed | Not Listed |
| Tuckerman's Sedge | Carex tuckermanii | Red | Not Listed | Not Listed | Not Listed |
| Vasey's Rush | Juncus vaseyi | Red | Not Listed | Not Listed | Not Listed |
| Virginia Anemone | Anemone virginiana | Yellow | Not Listed | Not Listed | Not Listed |
| Water Beggarticks | Bidens beckii | Yellow | Not Listed | Not Listed | Not Listed |
| Water Blinks | Montia fontana | Red | Not Listed | Not Listed | Not Listed |
| Water Pygmyweed | Crassula aquatica | Yellow | Not Listed | Not Listed | Not Listed |
| Wavy-leaved Aster | Symphyotrichum undulatum | Yellow | Not Listed | Not Listed | Not Listed |
| Western Hairy Rockcress | Arabis hirsuta | Red | Not Listed | Not Listed | Not Listed |
| White Adder's-Mouth | Malaxis monophyllos | Red | Not Listed | Not Listed | Not Listed |
| White Mountain Saxifrage | Saxifraga paniculata | Yellow | Not Listed | Not Listed | Not Listed |
| White-stemmed Pondweed | Potamogeton praelongus | Yellow | Not Listed | Not Listed | Not Listed |
| Whorled Water Milfoil | Myriophyllum verticillatum | Yellow | Not Listed | Not Listed | Not Listed |
| Wiegand's Sedge | Carex wiegandii | Red | Not Listed | Not Listed | Not Listed |
| Wiegand's Wild Rye | Elymus wiegandii | Red | Not Listed | Not Listed | Not Listed |
| Wild Black Currant | Ribes americanum | Undetermined | Not Listed | Not Listed | Not Listed |
| Wild Chives | Allium schoenoprasum | Red | Not Listed | Not Listed | Not Listed |



| Common Name | Scientific Name | NSDNR Status | COSEWIC Status | SARA Status | NSESA Status |
|------------------------|-------------------------|--------------|----------------|-------------|--------------|
| Wild Comfrey | Cynoglossum virginianum | Red | Not Listed | Not Listed | Not Listed |
| Wild Leek | Allium tricoccum | Red | Not Listed | Not Listed | Not Listed |
| Wood Anemone | Anemone quinquefolia | Yellow | Not Listed | Not Listed | Not Listed |
| Woodland Rush | Juncus subcaudatus | Yellow | Not Listed | Not Listed | Not Listed |
| Woolly Sedge | Carex pellita | Red | Not Listed | Not Listed | Not Listed |
| Yellow Ladies'-tresses | Spiranthes ochroleuca | Yellow | Not Listed | Not Listed | Not Listed |
| Yellow Lady's-slipper | Cypripedium parviflorum | Yellow | Not Listed | Not Listed | Not Listed |
| Yellow Spikerush | Eleocharis flavescens | Yellow | Not Listed | Not Listed | Not Listed |



| Scientific Name | Common Name | NSDNR Status | COSEWIC Status | SARA Status | NSESA Status |
|---------------------------|--------------------------|--------------|----------------|-------------|--------------|
| Abies balsamea | Balsam Fir | Green | Not Listed | Not Listed | Not Listed |
| Acer rubrum | Red Maple | Green | Not Listed | Not Listed | Not Listed |
| Agalinis neoscotica | NS False Foxglove | Green | Not Listed | Not Listed | Not Listed |
| Agrostis scabra | Rough Bentgrass | Green | Not Listed | Not Listed | Not Listed |
| Agrostis stolonifera | Spreading Bentgrass | Green | Not Listed | Not Listed | Not Listed |
| Alnus incana | Speckled Alder | Green | Not Listed | Not Listed | Not Listed |
| Anaphalis margaritacea | Pearly Everlasting | Green | Not Listed | Not Listed | Not Listed |
| Aralia hispida | Bristly Sarsaparilla | Green | Not Listed | Not Listed | Not Listed |
| Aralia nudicaulis | Wild Sarsaparilla | Green | Not Listed | Not Listed | Not Listed |
| Betula alleghaniensis | Yellow Birch | Green | Not Listed | Not Listed | Not Listed |
| Betula papyrifera | Paper Birch | Green | Not Listed | Not Listed | Not Listed |
| Betula populifolia | Gray Birch | Green | Not Listed | Not Listed | Not Listed |
| Calamagrostis canadensis | Blue-Joint Reedgrass | Green | Not Listed | Not Listed | Not Listed |
| Carex brunnescens | Brown Sedge | Green | Not Listed | Not Listed | Not Listed |
| Carex canescens | Hoary Sedge | Green | Not Listed | Not Listed | Not Listed |
| Carex crinita | Fringed Sedge | Green | Not Listed | Not Listed | Not Listed |
| Carex echinata | Little Prickly Sedge | Green | Not Listed | Not Listed | Not Listed |
| Carex gracillima | Graceful Sedge | Green | Not Listed | Not Listed | Not Listed |
| Carex gynandra | A Sedge | Green | Not Listed | Not Listed | Not Listed |
| Carex intumescens | Bladder Sedge | Green | Not Listed | Not Listed | Not Listed |
| Carex Iurida | Shallow Sedge | Green | Not Listed | Not Listed | Not Listed |
| Carex pedunculata | Longstalk Sedge | Green | Not Listed | Not Listed | Not Listed |
| Carex projecta | Necklace Sedge | Green | Not Listed | Not Listed | Not Listed |
| Carex scoparia | Pointed Broom Sedge | Green | Not Listed | Not Listed | Not Listed |
| Carex scabrata | Rough Sedge | Green | Not Listed | Not Listed | Not Listed |
| Carex stipata | Stalk-grain sedge | Green | Not Listed | Not Listed | Not Listed |
| Carex stricta | Tussock Sedge | Green | Not Listed | Not Listed | Not Listed |
| Carex trisperma | Three-Seed Sedge | Green | Not Listed | Not Listed | Not Listed |
| Chamerion angustifolium | Fireweed | Green | Not Listed | Not Listed | Not Listed |
| Clintonia borealis | Yellow Clintonia | Green | Not Listed | Not Listed | Not Listed |
| Coptis trifolia | Goldthread | Green | Not Listed | Not Listed | Not Listed |
| Cornus canadensis | Bunchberry | Green | Not Listed | Not Listed | Not Listed |
| Cypripedium acaule | Mocassin Flower | Green | Not Listed | Not Listed | Not Listed |
| Danthonia spicata | Poverty Oat-Grass | Green | Not Listed | Not Listed | Not Listed |
| Dennstaedtia punctilobula | Eastern Hay-Scented Fern | Green | Not Listed | Not Listed | Not Listed |



| Scientific Name | Common Name | NSDNR Status | COSEWIC Status | SARA Status | NSESA Status |
|--------------------------|---------------------------|--------------|----------------|-------------|---------------------|
| Deschampsia flexuosa | Crinkled Hairgrass | Green | Not Listed | Not Listed | Not Listed |
| Dichanthelium acuminatum | Panic Grass | Green | Not Listed | Not Listed | Not Listed |
| Diervilla lonicera | Northern Bush-Honeysuckle | Green | Not Listed | Not Listed | Not Listed |
| Doellingeria umbellata | Parasol White-Top | Green | Not Listed | Not Listed | Not Listed |
| Dryopteris intermedia | Evergreen Wood Fern | Green | Not Listed | Not Listed | Not Listed |
| Dryopteris cristata | Crested Shield-Fern | Green | Not Listed | Not Listed | Not Listed |
| Eleocharis acicularis | Least Spike-Rush | Green | Not Listed | Not Listed | Not Listed |
| Eleocharis obtusa | Blunt Spike-Rush | Green | Not Listed | Not Listed | Not Listed |
| Epigaea repens | Trailing Arbutus | Green | Not Listed | Not Listed | Not Listed |
| Epilobium ciliatum | Hairy Willow-Herb | Green | Not Listed | Not Listed | Not Listed |
| Epilobium leptophyllum | Linear-Leaved Willow-Herb | Green | Not Listed | Not Listed | Not Listed |
| Equisetum arvense | Field Horsetail | Green | Not Listed | Not Listed | Not Listed |
| Equisetum sylvaticum | Woodland Horsetail | Green | Not Listed | Not Listed | Not Listed |
| Eriophorum virginicum | Tawny Cotton-Grass | Green | Not Listed | Not Listed | Not Listed |
| Eupatorium perfoliatum | Common Boneset | Green | Not Listed | Not Listed | Not Listed |
| Euthamia graminifolia | Grass-leaved goldenrod | Green | Not Listed | Not Listed | Not Listed |
| Euphrasia nemorosa | Common Eyebright | Green | Not Listed | Not Listed | Not Listed |
| Eurybia radula | an aster | Green | Not Listed | Not Listed | Not Listed |
| Fragaria virginiana | Virginia Strawberry | Green | Not Listed | Not Listed | Not Listed |
| Galium aparine | Common Bedstraw | Exotic | Not Listed | Not Listed | Not Listed |
| Galium tinctorium | Stiff Marsh Bedstraw | Green | Not Listed | Not Listed | Not Listed |
| Gaultheria hispidula | Creeping Snowberry | Green | Not Listed | Not Listed | Not Listed |
| Gaultheria procumbens | Teaberry | Green | Not Listed | Not Listed | Not Listed |
| Gaylussacia baccata | Black Huckleberry | Green | Not Listed | Not Listed | Not Listed |
| Agalinis neoscotica | NS False Foxglove | Green | Not Listed | Not Listed | Not Listed |
| Glyceria canadensis | Canada Manna-Grass | Green | Not Listed | Not Listed | Not Listed |
| Glyceria striata | Fowl Manna-Grass | Green | Not Listed | Not Listed | Not Listed |
| Gymnocarpium dryopteris | Oak Fern | Green | Not Listed | Not Listed | Not Listed |
| Houstonia caerulea | Common Bluets | Green | Not Listed | Not Listed | Not Listed |
| Hypericum boreale | Boreal St. John'swort | Green | Not Listed | Not Listed | Not Listed |
| Hypericum canadense | Canadian St. John's-Wort | Green | Not Listed | Not Listed | Not Listed |
| llex verticillata | Black Holly | Green | Not Listed | Not Listed | Not Listed |
| Iris versicolor | Blueflag | Green | Not Listed | Not Listed | Not Listed |
| Juncus articulatus | Jointed Rush | Green | Not Listed | Not Listed | Not Listed |
| Juncus brevicaudatus | Short-tailed Rush | Green | Not Listed | Not Listed | Not Listed |



| Scientific Name | Common Name | NSDNR Status | COSEWIC Status | SARA Status | NSESA Status |
|-------------------------|----------------------------|--------------|----------------|-------------|--------------|
| Juncus bufonius | Toad Rush | Green | Not Listed | Not Listed | Not Listed |
| Juncus canadensis | Canada Rush | Green | Not Listed | Not Listed | Not Listed |
| Juncus effusus | Soft Rush | Green | Not Listed | Not Listed | Not Listed |
| Juncus pelocarpus | bog rush | Green | Not Listed | Not Listed | Not Listed |
| Juncus tenuis | Slender Rush | Green | Not Listed | Not Listed | Not Listed |
| Kalmia angustifolia | Sheep-Laurel | Green | Not Listed | Not Listed | Not Listed |
| Larix Iaricina | American Larch | Green | Not Listed | Not Listed | Not Listed |
| Linnaea borealis | Twinflower | Green | Not Listed | Not Listed | Not Listed |
| Lonicera canadensis | American Fly-Honeysuckle | Green | Not Listed | Not Listed | Not Listed |
| Lycopodium annotinum | Stiff Clubmoss | Green | Not Listed | Not Listed | Not Listed |
| Lysimachia terrestris | Swamp Loosestrife | Green | Not Listed | Not Listed | Not Listed |
| Maianthemum canadense | Wild Lily-of-The-Valley | Green | Not Listed | Not Listed | Not Listed |
| Maianthemum trifolium | Three-Leaf Solomon's-Plume | Green | Not Listed | Not Listed | Not Listed |
| Melampyrum lineare | American Cow-Wheat | Green | Not Listed | Not Listed | Not Listed |
| Mitchella repens | Partridge-Berry | Green | Not Listed | Not Listed | Not Listed |
| Monotropa uniflora | Indian-Pipe | Green | Not Listed | Not Listed | Not Listed |
| Monotropa hypopithys | American Pinesap | Green | Not Listed | Not Listed | Not Listed |
| Myrica pensylvanica | Northern Bayberry | Green | Not Listed | Not Listed | Not Listed |
| Myrica gale | Sweet Gale | Green | Not Listed | Not Listed | Not Listed |
| Nemopanthus mucronatus | Mountain Holly | Green | Not Listed | Not Listed | Not Listed |
| Oclemena acuminata | Whorled Aster | Green | Not Listed | Not Listed | Not Listed |
| Oclemena nemoralis | Bog Aster | Green | Not Listed | Not Listed | Not Listed |
| Oenothera biennis | Common Evening-Primrose | Green | Not Listed | Not Listed | Not Listed |
| Onoclea sensibilis | Sensitive Fern | Green | Not Listed | Not Listed | Not Listed |
| Orthilia secunda | One-Side Wintergreen | Green | Not Listed | Not Listed | Not Listed |
| Osmunda cinnamomea | Cinnamon Fern | Green | Not Listed | Not Listed | Not Listed |
| Osmunda claytoniana | Interrupted Fern | Green | Not Listed | Not Listed | Not Listed |
| Oxalis montana | White Wood-Sorrel | Green | Not Listed | Not Listed | Not Listed |
| Phegopteris connectilis | Northern Beech Fern | Green | Not Listed | Not Listed | Not Listed |
| Photinia melanocarpa | Black Chokeberry | Green | Not Listed | Not Listed | Not Listed |
| Picea glauca | White Spruce | Green | Not Listed | Not Listed | Not Listed |
| Picea mariana | Black Spruce | Green | Not Listed | Not Listed | Not Listed |
| Picea rubens | Red Spruce | Green | Not Listed | Not Listed | Not Listed |
| Pinus strobus | Eastern White Pine | Green | Not Listed | Not Listed | Not Listed |
| Platanthera dilatata | Tall white bog orchid | Green | Not Listed | Not Listed | Not Listed |



| Scientific Name | Common Name | NSDNR Status | COSEWIC Status | SARA Status | NSESA Status |
|-----------------------------|-------------------------------|--------------|----------------|-------------|--------------|
| Poa pratensis | Kentucky Blue grass | Green | Not Listed | Not Listed | Not Listed |
| Fallopia cilinodis | Fringed Black Bindweed | Green | Not Listed | Not Listed | Not Listed |
| Persicaria hydropiper | Water Pepper | Exotic | Not Listed | Not Listed | Not Listed |
| Polygonum sagittatum | Arrow-Leaved Tearthumb | Green | Not Listed | Not Listed | Not Listed |
| Polypodium virginianum | Rock Polypody | Green | Not Listed | Not Listed | Not Listed |
| Populus tremuloides | Quaking Aspen | Green | Not Listed | Not Listed | Not Listed |
| Potentilla simplex | Cinquefoil | Green | Not Listed | Not Listed | Not Listed |
| Prenanthes trifoliolata | Three-Leaved Rattlesnake-root | Green | Not Listed | Not Listed | Not Listed |
| Prunus pensylvanica | Fire Cherry | Green | Not Listed | Not Listed | Not Listed |
| Pteridium aquilinum | Bracken Fern | Green | Not Listed | Not Listed | Not Listed |
| Rhododendron canadense | Rhodora | Green | Not Listed | Not Listed | Not Listed |
| Rosa palustris | Marsh Rose | Green | Not Listed | Not Listed | Not Listed |
| Rosa virginiana | Virginia Rose | Green | Not Listed | Not Listed | Not Listed |
| Rubus hispidus | Bristly Dewberry | Green | Not Listed | Not Listed | Not Listed |
| Rubus idaeus | Red Raspberry | Green | Not Listed | Not Listed | Not Listed |
| Rubus allegheniensis | Allegheny Blackberry | Green | Not Listed | Not Listed | Not Listed |
| Rubus pubescens | Dwarf Red Raspberry | Green | Not Listed | Not Listed | Not Listed |
| Rubus recurvicaulis | a bramble | Green | Not Listed | Not Listed | Not Listed |
| Salix bebbiana | Bebb's Willow | Green | Not Listed | Not Listed | Not Listed |
| Salix pyrifolia | Balsam Willow | Green | Not Listed | Not Listed | Not Listed |
| Scirpus cyperinus | Cottongrass Bulrush | Green | Not Listed | Not Listed | Not Listed |
| Scirpus microcarpus | Small-Fruit Bulrush | Green | Not Listed | Not Listed | Not Listed |
| Sisyrinchium montanum | Strict Blue-Eyed-Grass | Green | Not Listed | Not Listed | Not Listed |
| Solidago canadensis | Canada Goldenrod | Green | Not Listed | Not Listed | Not Listed |
| Solidago puberula | Downy Goldenrod | Green | Not Listed | Not Listed | Not Listed |
| Solidago rugosa | Rough-Leaf Goldenrod | Green | Not Listed | Not Listed | Not Listed |
| Solidago uliginosa | Bog Goldenrod | Green | Not Listed | Not Listed | Not Listed |
| Sorbus americana | American Mountain-Ash | Green | Not Listed | Not Listed | Not Listed |
| Spiraea alba | Narrow-Leaved Meadow-Sweet | Green | Not Listed | Not Listed | Not Listed |
| Spiraea tomentosa | Hardhack Spiraea | Green | Not Listed | Not Listed | Not Listed |
| Symphyotrichum lateriflorum | Farewell-Summer | Green | Not Listed | Not Listed | Not Listed |
| Symphyotrichum novi-belgii | New Belgium American-Aster | Green | Not Listed | Not Listed | Not Listed |
| Eurybia radula | Rough Aster | Green | Not Listed | Not Listed | Not Listed |
| Taxus canadensis | Canadian Yew | Green | Not Listed | Not Listed | Not Listed |
| Thalictrum pubescens | Tall Meadow-Rue | Green | Not Listed | Not Listed | Not Listed |



| Scientific Name | Common Name | NSDNR Status | COSEWIC Status | SARA Status | NSESA Status |
|----------------------------|------------------------|--------------|----------------|-------------|--------------|
| Thelypteris noveboracensis | New York Fern | Green | Not Listed | Not Listed | Not Listed |
| Trientalis borealis | Northern Starflower | Green | Not Listed | Not Listed | Not Listed |
| Typha latifolia | Broad-leaf Cattail | Green | Not Listed | Not Listed | Not Listed |
| Vaccinium angustifolium | Late Lowbush Blueberry | Green | Not Listed | Not Listed | Not Listed |
| Vaccinium macrocarpon | Large Cranberry | Green | Not Listed | Not Listed | Not Listed |
| Vaccinium myrtilloides | Velvet-leaf Blueberry | Green | Not Listed | Not Listed | Not Listed |
| Vaccinium vitis-idaea | Mountain Cranberry | Green | Not Listed | Not Listed | Not Listed |
| Viburnum opulus | Possum-Haw Viburnum | Green | Not Listed | Not Listed | Not Listed |
| Viola cucullata | Marsh Blue Violet | Green | Not Listed | Not Listed | Not Listed |
| Viola macloskeyi | Smooth White Violet | Green | Not Listed | Not Listed | Not Listed |
| Centaurea nigra | Black Knapweed | Exotic | Not Listed | Not Listed | Not Listed |
| Festuca filiformis | Hair Fescue | Exotic | Not Listed | Not Listed | Not Listed |
| Hieracium pilosella | Mouse-eared hawkweed | Exotic | Not Listed | Not Listed | Not Listed |
| Lathyrus aphaca | Yellow Vetchling | Exotic | Not Listed | Not Listed | Not Listed |
| Leontodon autumnalis | Fall Dandelion | Exotic | Not Listed | Not Listed | Not Listed |
| Phleum pratense | Timothy | Exotic | Not Listed | Not Listed | Not Listed |
| Potentilla norvegica | Norway Cinquefoil | Green | Not Listed | Not Listed | Not Listed |
| Ranunculus repens | creeping buttercup | Exotic | Not Listed | Not Listed | Not Listed |
| Veronica officinalis | wood speedwell | Exotic | Not Listed | Not Listed | Not Listed |
| Trifolium arvense | rabbitfoot clover | Exotic | Not Listed | Not Listed | Not Listed |
| Trifolium hybridum | alsike clover | Exotic | Not Listed | Not Listed | Not Listed |
| Trifolium pratense | red clover | Exotic | Not Listed | Not Listed | Not Listed |
| Trifolium repens | white clover | Exotic | Not Listed | Not Listed | Not Listed |



APPENDIX C PHOTO LOG



Photo 1: Regenerating forests.



Photo 3: Upland forest.



Photo 2: Disturbed habitat.



Photo 4: Wetland habitat.