

# APPENDIX E

## Species



# APPENDIX E

## E1: Species Tables



Table E1: Plant Species Identified During Fieldwork or as Potentially Occurring in the General Area of the Project Location

Scientific Name	Common Name	Conservation Status					Information Source	
		National	Provincial		Coefficient of Conservation	Coefficient of Wetness	NHIC <sup>4</sup>	Observed during Fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>				
<b>PLANTS</b>								
<i>Abies balsamea</i>	Balsam Fir	---	---	S5	5	-3		•
<i>Acer negundo</i>	Manitoba Maple	---	---	S5	0	-2		•
<i>Acer rubrum</i>	Red Maple	---	---	S5	4	0		•
<i>Acer saccharum ssp. saccharum</i>	Sugar Maple	---	---	S5	4	3		•
<i>Acer spicatum</i>	Mountain Maple	---	---	S5	6	3		•
<i>Achillea millefolium ssp. millefolium</i>	Common Yarrow	---	---	SE	0	3		•
<i>Actaea rubra</i>	Red Baneberry	---	---	S5	5	5		•
<i>Aegopodium podagraria</i>	Goutweed	---	---	SE5	0	0		•
<i>Agalinis gattingeri</i>	Gattinger's agalinis	END	END	S1	10	-3	•	
<i>Agrimonia gryposepala</i>	Tall Agrimony	---	---	S5	2	2		•
<i>Agrostis gigantea</i>	Redtop Grass	---	---	SE5	0	0		•
<i>Ajuga reptans</i>	Common Bugle	---	---	SE2	0	5		•
<i>Alisma plantago-aquatica</i>	Common Water-plantain	---	---	S5	3	-5		•
<i>Allium tricoccum</i>	Wild Leek	---	---	S5	7	2		•
<i>Alnus incana ssp. rugosa</i>	Speckled Alder	---	---	S5	6	-5		•
<i>Ambrosia artemisiifolia</i>	Common Ragweed	---	---	S5	0	3		•
<i>Amelanchier sp</i>	Serviceberry Species	---	---					•
<i>Anaphalis margaritacea</i>	Pearly Everlasting	---	---	S5	3	5		•

Scientific Name	Common Name	Conservation Status					Information Source	
		National SARA <sup>1</sup>	Provincial		Coefficient of Conservation	Coefficient of Wetness	NHIC <sup>4</sup>	Observed during Fieldwork
			ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>				
<i>Anemone acutiloba</i>	Sharp-lobed Hepatica	---	---	S5	6	5		•
<i>Anemone americana</i>	Round-lobed Hepatica	---	---	S5	6	5		•
<i>Anemone virginiana</i> var. <i>virginiana</i>	Thimbleweed	---	---	S5	4	5		•
<i>Antennaria</i> sp	Pussytoes Species	---	---					•
<i>Apocynum androsaemifolium</i> ssp. <i>androsaemifolium</i>	Spreading Dogbane	---	---	S5	3	5		•
<i>Aquilegia canadensis</i>	Wild Columbine	---	---	S5	5	1		•
<i>Aralia nudicaulis</i>	Wild Sarsaparilla	---	---	S5	4	3		•
<i>Arctostaphylos uva-ursi</i>	Bearberry	---	---	S5	8	5		•
<i>Asclepias syriaca</i>	Common Milkweed	---	---	S5	0	5		•
<i>Asplenium ruta-muraria</i>	Wallrue spleenwort	---	---	S2	10	5	•	
<i>Asplenium trichomanes</i> ssp. <i>trichomanes</i>	Maidenhair Spleenwort	---	---	SU	8	5		•
<i>Aster ciliolatus</i>	Fringed-blue Aster	---	---	S5	6	4		•
<i>Aster ericoides</i> var. <i>ericoides</i>	Heath Aster	---	---	S5	4	4		•
<i>Aster laevis</i> var. <i>laevis</i>	Smooth Aster	---	---	S5	7	5		•
<i>Aster lanceolatus</i> ssp. <i>lanceolatus</i>	Panicled Aster	---	---	S5	3	-3		•
<i>Aster lateriflorus</i> var. <i>lateriflorus</i>	One-sided Aster	---	---	S5	3	-2		•
<i>Aster macrophyllus</i>	Large-leaved Aster	---	---	S5	5	5		•
<i>Aster umbellatus</i> var. <i>umbellatus</i>	Flat-topped White Aster	---	---	S5	6	-3		•
<i>Aster urophyllus</i>	Arrow-leaved Aster	---	---	S4	6	5		•

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		National SARA <sup>1</sup>	Provincial ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>	Coefficient of Conservation	Coefficient of Wetness	NHIC <sup>4</sup>	Observed during Fieldwork
<i>Aster sp.</i>		---	---					•
<i>Astragalus neglectus</i>	Cooper's Milkvetch*	---	---	S3	9	4		•
<i>Athyrium filix-femina var. angustum</i>	Northern Lady Fern	---	---	S5	4	0		•
<i>Betula papyrifera</i>	White Birch	---	---	S5	2	2		•
<i>Bidens frondosa</i>	Devil's Beggar-ticks	---	---	S5	3	-3		•
<i>Bidens tripartita</i>	Three-lobed Beggar-ticks	---	---	S5	4	-3		•
<i>Botrychium virginianum</i>	Rattlesnake Fern	---	---	S5	5	3		•
<i>Bromus inermis ssp. inermis</i>	Smooth Brome	---	---	SE5	0	5		•
<i>Calamagrostis canadensis</i>	Canada Blue-joint	---	---	S5	4	-5		•
<i>Caltha palustris</i>	Marsh Marigold	---	---	S5	5	-5		•
<i>Carex albursina</i>	Blunt-scaled Wood Sedge	---	---	S5	7	5		•
<i>Carex eburnea</i>	Bristle-leaved Sedge	---	---	S5	6	4		•
<i>Carex gracillima</i>	Graceful Sedge	---	---	S5	4	3		•
<i>Carex granularis</i>	Meadow Sedge	---	---	S5	3	-4		•
<i>Carex intumescens</i>	Bladder Sedge	---	---	S5	6	-4		•
<i>Carex lacustris</i>	Lakebank Sedge	---	---	S5	5	-5		•
<i>Carex pensylvanica</i>	Pennsylvania Sedge	---	---	S5	5	5		•
<i>Carex plantaginea</i>	Plantain-leaved Sedge	---	---	S5	7	5		•
<i>Carex retrorsa</i>	Retrorse Sedge	---	---	S5	5	-5		•
<i>Carex tenera</i>	Slender Straw Sedge	---	---	S5	4	-1		•
<i>Carex tuckermanii</i>	Tuckerman's Sedge	---	---	S4	7	-5		•
<i>Carex viridula</i>	Greenish Sedge	---	---	S5	5	-5		•
<i>Carex vulpinoidea</i>	Fox Sedge	---	---	S5	3	-5		•

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		National SARA <sup>1</sup>	Provincial		Coefficient of Conservation	Coefficient of Wetness	NHIC <sup>4</sup>	Observed during Fieldwork
			ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>				
<i>Carex sp.</i>		---	---					•
<i>Castilleja coccinea</i>	Indian Paintbrush	---	---	S5	9	0		•
<i>Cerastium arvense ssp. strictum</i>	Field Chickweed	---	---	S4	8	4		•
<i>Chrysanthemum leucanthemum</i>	Ox-eye Daisy	---	---	SE5	0	5		•
<i>Cichorium intybus</i>	Chicory	---	---	SE5	0	5		•
<i>Cicuta bulbifera</i>	Bulb-bearing Water-hemlock	---	---	S5	5	-5		•
<i>Cicuta maculata</i>	Spotted Water-hemlock	---	---	S5	6	-5		•
<i>Cirsium arvense</i>	Canada Thistle	---	---	SE5	0	3		•
<i>Cirsium vulgare</i>	Bull Thistle	---	---	SE5	0	4		•
<i>Clinopodium vulgare</i>	Wild Basil	---	---	S5	4	5		•
<i>Corallorhiza sp</i>	Coralroot Species	---	---					•
<i>Cornus canadensis</i>	Bunchberry	---	---	S5	7	0		•
<i>Cornus foemina ssp. racemosa</i>	Grey Dogwood	---	---	S5	2	-2		•
<i>Cornus rugosa</i>	Round-leaved Dogwood	---	---	S5	6	5		•
<i>Cornus stolonifera</i>	Red-osier Dogwood	---	---	S5	2	-3		•
<i>Corylus cornuta</i>	Beaked Hazelnut	---	---	S5	5	5		•
<i>Crataegus sp</i>	Hawthorn Species	---	---					•
<i>Cryptotaenia canadensis</i>	Honewort	---	---	S5	5	0		•
<i>Cyperus houghtonii</i>	Houghton's Flat Sedge*	---	---	S3?	8	5	•	
<i>Cystopteris bulbifera</i>	Bulblet Bladder Fern	---	---	S5	5	-2		•
<i>Cystopteris fragilis</i>	Brittle Fern	---	---	S5	7	3		•

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<i>Dactylis glomerata</i>	Orchard Grass	---	---	SE5	0	3		•
<i>Danthonia spicata</i>	Poverty Oat Grass	---	---	S5	5	5		•
<i>Daucus carota</i>	Wild Carrot	---	---	SE5	0	5		•
<i>Dianthus armeria</i>	Deptford Pink	---	---	SE5	0	5		•
<i>Dirca palustris</i>	Leatherwood	---	---	S4?	7	0		•
<i>Dryopteris carthusiana</i>	Spinulose Wood Fern	---	---	S5	5	-2		•
<i>Dryopteris cristata</i>	Crested Wood Fern	---	---	S5	7	-5		•
<i>Dryopteris intermedia</i>	Evergreen Wood Fern	---	---	S5	5	0		•
<i>Dryopteris marginalis</i>	Marginal Wood Fern	---	---	S5	5	3		•
<i>Echinochloa crusgalli</i>	Barnyard Grass	---	---	SE5	0	-3		•
<i>Eleocharis sp</i>	Spike-rush Species	---	---					•
<i>Elymus hystrix</i>	Bottlebrush Grass	---	---	S5	5	5		•
<i>Elymus repens</i>	Quack Grass	---	---	SE5	0	3		•
<i>Epilobium angustifolium</i>	Fireweed	---	---	S5	3	0		•
<i>Epilobium coloratum</i>	Purple-leaved Willow-herb	---	---	S5	3	-5		•
<i>Epipactis helleborine</i>	Helleborine	---	---	SE5	0	5		•
<i>Equisetum arvense</i>	Field Horsetail	---	---	S5	0	0		•
<i>Equisetum fluviatile</i>	Water Horsetail	---	---	S5	7	-5		•
<i>Erigeron annuus</i>	Daisy Fleabane	---	---	S5	0	1		•
<i>Eupatorium maculatum ssp. maculatum</i>	Spotted Joe-pye-weed	---	---	S5	3	-5		•
<i>Eupatorium perfoliatum</i>	Common Boneset	---	---	S5	2	-4		•
<i>Euphorbia esula</i>	Leafy Spurge	---	---	SE5	0	5		•
<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	---	---	S5	2	-2		•

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			ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>				
<i>Fragaria virginiana</i> ssp. <i>virginiana</i>	Common Strawberry	---	---	S5	2	1		•
<i>Fraxinus americana</i>	White Ash	---	---	S5	4	3		•
<i>Fraxinus nigra</i>	Black Ash	---	---	S5	7	-4		•
<i>Fraxinus pennsylvanica</i>	Red Ash	---	---	S5	3	-3		•
<i>Galium palustre</i>	Marsh Bedstraw	---	---	S5	5	-5		•
<i>Galium triflorum</i>	Fragrant Bedstraw	---	---	S5	4	2		•
<i>Galium verum</i>	Yellow Bedstraw	---	---	SE5	0	5		•
<i>Geranium robertianum</i>	Herb Robert	---	---	SE5	0	5		•
<i>Geum triflorum</i>	Prairie Smoke	---	---	S4	9	4		•
<i>Geum</i> sp.		---	---					•
<i>Glyceria striata</i>	Fowl Manna Grass	---	---	S5	3	-5		•
<i>Goodyera oblongifolia</i>	Menzies Rattlesnake Plantain	---	---	S4	7	5		•
<i>Gymnocarpium dryopteris</i>	Common Oak Fern	---	---	S5	7	0		•
<i>Hedeoma pulegioides</i>	American Pennyroyal	---	---	S4	6	5		•
<i>Hieracium aurantiacum</i>	Orange Hawkweed	---	---	SE5	0	5		•
<i>Hieracium scabrum</i>	Rough Hawkweed	---	---	S4	7	5		•
<i>Hieracium</i> sp.	Hawkweed Species	---	---					•
<i>Hypericum perforatum</i>	Common St. John's-wort	---	---	SE5	0	5		•
<i>Impatiens capensis</i>	Spotted Touch-me-not	---	---	S5	4	-3		•
<i>Inula helenium</i>	Elecampane	---	---	SE5	0	5		•
<i>Iris versicolor</i>	Northern Blue-flag	---	---	S5	5	-5		•
<i>Juncus dudleyi</i>	Dudley's Rush	---	---	S5	1	0		•
<i>Juncus tenuis</i>	Path Rush	---	---	S5	0	0		•



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<i>Juncus sp.</i>		---	---					•
<i>Juniperus communis</i>	Common Juniper	---	---	S5	4	3		•
<i>Juniperus horizontalis</i>	Creeping Juniper	---	---	S5	10	1		•
<i>Lactuca serriola</i>	Prickly Lettuce	---	---	SE5	0	0		•
<i>Lapsana communis</i>	Nipplewort	---	---	SE5	0	5		•
<i>Larix laricina</i>	Tamarack	---	---	S5	7	-3		•
<i>Liatris cylindracea</i>	Slender blazing star	---	---	S3	10	5	•	•
<i>Lilium philadelphicum</i>	Wood Lily	---	---	S5	8	1		•
<i>Linnaea borealis ssp. longiflora</i>	Twinflower	---	---	S5	7	0		•
<i>Linum sulcatum</i>	Grooved Yellow Flax*	---	---	S3	9	5	•	
<i>Lonicera canadensis</i>	Fly Honeysuckle	---	---	S5	6	3		•
<i>Lonicera dioica</i>	Glaucous Honeysuckle	---	---	S5	5	3		•
<i>Lotus corniculatis</i>	Birds-foot Trefoil	---	---	SE5	0	1		•
<i>Lycopus americanus</i>	Cut-leaved Water-horehound	---	---	S5	4	-5		•
<i>Lycopus uniflorus</i>	Northern Water-horehound	---	---	S5	5	-5		•
<i>Maianthemum canadense</i>	Canada Mayflower	---	---	S5	5	0		•
<i>Maianthemum racemosum ssp. racemosum</i>	False Solomon's Seal	---	---	S5	4	3		•
<i>Maianthemum stellatum</i>	Starry False Solomon's Seal	---	---	S5	6	1		•
<i>Malus pumila</i>	Common Apple	---	---	SE5	0	5		•
<i>Medicago lupulina</i>	Black Medick	---	---	SE5	0	1		•
<i>Medicago sativa ssp. sativa</i>	Alfalfa	---	---	SE5	0	5		•
<i>Melilotus alba</i>	White Sweet-clover	---	---	SE5	0	3		•

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			ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>				
<i>Melilotus officinalis</i>	Yellow Sweet-clover	---	---	SE5	0	3		•
<i>Mentha arvensis ssp. borealis</i>	Wild Mint	---	---	S5	3	-3		•
<i>Mitella nuda</i>	Naked Mitrewort	---	---	S5	6	-3		•
<i>Monotropa hypopithys</i>	Pinesap	---	---	S4	6	5		•
<i>Monotropa uniflora</i>	Indian-pipe	---	---	S5	6	3		•
<i>Nepeta cataria</i>	Catnip	---	---	SE5	0	1		•
<i>Onoclea sensibilis</i>	Sensitive Fern	---	---	S5	4	-3		•
<i>Orobanche fasciculata</i>	Clustered Broomrape*	---	---	S1	10	5	•	
<i>Ostrya virginiana</i>	Hop Hornbeam	---	---	S5	4	4		•
<i>Panicum capillare</i>	Witch Panic Grass	---	---	S5	0	0		•
<i>Panicum depauperatum</i>	Starved Panic Grass	---	---	S4	6	5		•
<i>Panicum sp.</i>		---	---					•
<i>Peltandra virginica</i>	Green Arrow-arum*	---	---	S2	9	-5	•	
<i>Petasites frigidus</i>	Sweet Coltsfoot	---	---	S5	8	-3		•
<i>Phalaris arundinacea</i>	Reed Canary Grass	---	---	S5	0	-4		•
<i>Phleum pratense</i>	Timothy	---	---	SE5	0	3		•
<i>Picea glauca</i>	White Spruce	---	---	S5	6	3		•
<i>Picea mariana</i>	Black Spruce	---	---	S5	8	-3		•
<i>Pinus strobus</i>	Eastern White Pine	---	---	S5	4	3		•
<i>Plantago lanceolata</i>	Ribgrass	---	---	SE5	0	0		•
<i>Plantago major</i>	Common Plantain	---	---	SE5	0	-1		•
<i>Poa compressa</i>	Canada Blue Grass	---	---	S5	0	2		•
<i>Poa pratensis ssp. pratensis</i>	Kentucky Blue Grass	---	---	S5	0	1		•
<i>Polygonatum pubescens</i>	Hairy Solomon's Seal	---	---	S5	5	5		•

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			ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>				
<i>Polygonum hydropiperoides</i>	Mild Water Pepper	---	---	S5	4	-5		•
<i>Polypodium virginianum</i>	Rock Polypody	---	---	S5	6	5		•
<i>Populus balsamifera ssp. balsamifera</i>	Balsam Poplar	---	---	S5	4	-3		•
<i>Populus grandidentata</i>	Largetooth Aspen	---	---	S5	5	3		•
<i>Populus tremuloides</i>	Trembling Aspen	---	---	S5	2	0		•
<i>Potentilla argentea</i>	Silvery Cinquefoil	---	---	SE5	0	3		•
<i>Potentilla recta</i>	Rough-fruited Cinquefoil	---	---	SE5	0	5		•
<i>Potentilla simplex</i>	Common Cinquefoil	---	---	S5	3	4		•
<i>Prenanthes alba</i>	White Lettuce	---	---	S5	6	3		•
<i>Prunella vulgaris ssp. lanceolata</i>	Heal-all	---	---	S5	5	5		•
<i>Prunus virginiana ssp. virginiana</i>	Choke Cherry	---	---	S5	2	1		•
<i>Pteridium aquilinum var. latiusculum</i>	Eastern Bracken Fern	---	---	S5	2	3		•
<i>Pyrola asarifolia</i>	Pink Pyrola	---	---	S5	7	-3		•
<i>Pyrola sp</i>	Pyrola Species	---	---					•
<i>Pyrus communis</i>	Common Pear	---	---	SE4	0	5		•
<i>Quercus macrocarpa</i>	Bur Oak	---	---	S5	5	1		•
<i>Quercus rubra</i>	Red Oak	---	---	S5	6	3		•
<i>Ranunculus abortivus</i>	Kidney-leaf Buttercup	---	---	S5	2	-2		•
<i>Ranunculus acris</i>	Tall Buttercup	---	---	SE5	0	-2		•
<i>Rhus aromatica</i>	Fragrant Sumac	---	---	S5	8	5		•
<i>Rhus radicans ssp. rydbergii</i>	Western Poison-ivy	---	---	S5	0	0		•

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			ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>				
<i>Rhus typhina</i>	Staghorn Sumac	---	---	S5	1	5		•
<i>Ribes americanum</i>	Wild Black Currant	---	---	S5	4	-3		•
<i>Ribes cynosbati</i>	Prickly Gooseberry	---	---	S5	4	5		•
<i>Ribes hirtellum</i>	Smooth Gooseberry	---	---	S5	6	-3		•
<i>Ribes lacustre</i>	Swamp Black Currant	---	---	S5	7	-3		•
<i>Ribes triste</i>	Swamp Red Currant	---	---	S5	6	-5		•
<i>Rosa sp</i>	Rose Species	---	---					•
<i>Rubus flagellaris</i>	Northern Dewberry	---	---	S4	4	4		•
<i>Rubus idaeus ssp. melanolasius</i>	Wild Red Raspberry	---	---	S5	0	-2		•
<i>Rubus pubescens</i>	Dwarf Raspberry	---	---	S5	4	-4		•
<i>Rumex acetosella ssp. acetosella</i>	Sheep Sorrel	---	---	SE5	0	0		•
<i>Rumex crispus</i>	Curly Dock	---	---	SE5	0	-1		•
<i>Salix bebbiana</i>	Bebb's Willow	---	---	S5	4	-4		•
<i>Salix discolor</i>	Pussy Willow	---	---	S5	3	-3		•
<i>Salix eriocephala</i>	Woolly-headed Willow	---	---	S5	4	-3		•
<i>Salix petiolaris</i>	Slender Willow	---	---	S5	3	-4		•
<i>Sambucus racemosa ssp. pubens</i>	Red-berried Elderberry	---	---	S5	5	2		•
<i>Sanicula marilandica</i>	Black Snakeroot	---	---	S5	5	3		•
<i>Saxifraga virginiana</i>	Early Saxifrage	---	---	S5	6	1		•
<i>Scirpus atrovirens</i>	Black Bulrush	---	---	S5	3	-5		•
<i>Scirpus cyperinus</i>	Wool Grass	---	---	S5	4	-5		•

Scientific Name	Common Name	Conservation Status					Information Source	
		National SARA <sup>1</sup>	Provincial		Coefficient of Conservation	Coefficient of Wetness	NHIC <sup>4</sup>	Observed during Fieldwork
			ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>				
<i>Scirpus validus</i>	Softstem Bulrush	---	---	S5	5	-5		•
<i>Scutellaria lateriflora</i>	Mad Dog Skullcap	---	---	S5	5	-5		•
<i>Sedum acre</i>	Mossy Stonecrop	---	---	SE5	0	5		•
<i>Shepherdia canadensis</i>	Buffalo Berry	---	---	S5	7	5		•
<i>Silene vulgaris</i>	Bladder Campion	---	---	SE5	0	5		•
<i>Sium suave</i>	Water-parsnip	---	---	S5	4	-5		•
<i>Solidago canadensis</i> var. <i>canadensis</i>	Canada Goldenrod	---	---	S5	1	3		•
<i>Solidago houghtonii</i>	Houghton's goldenrod	SC	THR	S2	10	-5	•	•
<i>Solidago juncea</i>	Early Goldenrod	---	---	S5	3	5		•
<i>Solidago nemoralis</i> ssp. <i>nemoralis</i>	Gray Goldenrod	---	---	S5	2	5		•
<i>Solidago ptarmicoides</i>	Upland White Goldenrod	---	---	S5	9	5		•
<i>Solidago rugosa</i> ssp. <i>rugosa</i>	Rough Goldenrod	---	---	S5	4	-1		•
<i>Solidago uliginosa</i>	Marsh Goldenrod	---	---	S5	9	-5		•
<i>Solidago</i> sp		---	---					•
<i>Sorbus decora</i>	Showy Mountain-ash	---	---	S5	8	3		•
<i>Sporobolous heterolepis</i>	Prairie Dropseed*	---	---	S2	10	4	•	
<i>Symphoricarpos albus</i>	Snowberry	---	---	S5	7	4		•
<i>Tanacetum vulgare</i>	Tansy	---	---	SE5	0	5		•
<i>Taraxacum officinale</i>	Common Dandelion	---	---	SE5	0	3		•
<i>Thuja occidentalis</i>	Eastern White Cedar	---	---	S5	4	-3		•
<i>Tilia americana</i>	Basswood	---	---	S5	4	3		•

Scientific Name	Common Name	Conservation Status					Information Source	
		National SARA <sup>1</sup>	Provincial ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>	Coefficient of Conservation	Coefficient of Wetness	NHIC <sup>4</sup>	Observed during Fieldwork
<i>Tragopogon pratensis ssp. pratensis</i>	Meadow Goat's-beard	---	---	SE5	0	5		•
<i>Trientalis borealis ssp. borealis</i>	Starflower	---	---	S5	6	-1		•
<i>Trifolium campestre</i>	Large Hop Clover	---	---	SE5	0	5		•
<i>Trifolium pratense</i>	Red Clover	---	---	SE5	0	2		•
<i>Trifolium repens</i>	White Clover	---	---	SE5	0	2		•
<i>Trillium grandiflorum</i>	White Trillium	---	---	S5	5	5		•
<i>Trillium sp.</i>	Trillium Species	---	---	---	---	---		•
<i>Typha latifolia</i>	Broad-leaved Cattail	---	---	S5	3	-5		•
<i>Ulmus americana</i>	White Elm	---	---	S5	3	-2		•
<i>Verbascum thapsus</i>	Common Mullein	---	---	SE5	0	5		•
<i>Veronica officinalis</i>	Common Speedwell	---	---	SE5	0	5		•
<i>Viburnum acerifolium</i>	Maple-leaved Viburnum	---	---	S5	6	5		•
<i>Viburnum rafinesquianum</i>	Downy Arrow-wood	---	---	S5	7	5		•
<i>Vicia cracca</i>	Cow Vetch	---	---	SE5	0	5		•
<i>Viola cucullata</i>	Marsh Blue Violet	---	---	S5	5	-5		•
<i>Viola sp</i>	Violet Species	---	---	---	---	---		•
<i>Waldsteinia fragarioides</i>	Barren Strawberry	---	---	S5	5	5		•
<b>MOSESSES AND LIVERWORTS</b>								
<i>Hypnum recurvatum</i>	A Moss*	---	---	S1				•

<sup>1</sup>Species at Risk Act; <sup>2</sup>Endangered Species Act; <sup>3</sup>SRank Code (see below); <sup>4</sup>MNR NHIC Database. For all codes, please see **Table E.3.**

• denotes occurrence record; --- denotes no information, no status or not applicable; \* denotes species of conservation concern

# APPENDIX E

## E2: Conservation Status Codes



Table E2: Wildlife Species Identified as Potentially Occurring in the General Area of the Project Location

Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
<b>BIRDS</b>													
<i>Branta canadensis</i>	Canada goose	---	---	S5B, SZN		•		•	•				•
<i>Aix sponsa</i>	Wood duck	---	---	S5B, SZN		•	•	•					•
<i>Anas strepera</i>	Gadwall	---	---	S4B, SZN			•	•					
<i>Anas americana</i>	American wigeon	---	---	S4B, SZN			•	•					
<i>Anas rubripes</i>	American black duck	---	---	S5B, SZN			•	•	•				•
<i>Anas platyrhynchos</i>	Mallard	---	---	S5B, SZN		•	•	•	•				•
<i>Anas discors</i>	Blue-winged teal	---	---	S5B, SZN		•	•	•					•
<i>Anas clypeata</i>	Northern shoveler	---	---	S4B, SZN			•	•					
<i>Anas acuta</i>	Northern pintail	---	---	S5B, SZN			•						
<i>Anas crecca</i>	Green-winged teal	---	---	S4B, SZN				•					•
<i>Aythya americana</i>	Redhead	---	---	S2B, SZN				•					
<i>Aythya collaris</i>	Ring-necked duck	---	---	S5B, SZN			•	•					•
<i>Aythya affinis</i>	Lesser scaup	---	---	S4B, SZN			•	•	•				
<i>Aythya</i>	Scaup sp.	---	---										•
<i>Clangula hyemalis</i>	Long-tailed duck*	---	---	S2S3B, SZN					•				
<i>Bucephala albeola</i>	Bufflehead	---	---	S3B, SZN					•				•
<i>Bucephala clanula</i>	Common goldeneye	---	---	S5B, SZN		•		•	•				•
<i>Lophodytes</i>	Hooded merganser	---	---	S5B, SZN		•	•	•	•				•



Scientific Name	Common Name	Conservation Status			Information Source									
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork	
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>										
<i>cucullatus</i>														
<i>Mergus merganser</i>	Common merganser	---	---	S5B, SZN		•	•	•						•
<i>Mergus serrator</i>	Red-breasted merganser	---	---	S4B, SZN			•	•						
<i>Bonasa umbellus</i>	Ruffed grouse	---	---	S5		•	•	•						•
<i>Tympanuchus phasianellus</i>	Sharp-tailed grouse	---	---	S4				•						•
<i>Phasianus colchicus</i>	Ring-necked pheasant	---	---	SE				•						
<i>Gavia immer</i>	Common Loon	---	---	S4B, SZN		•	•	•						•
<i>Podilymbus podiceps</i>	Pied-billed grebe	---	---	S4B, SZN			•	•						•
<i>Podiceps auritus</i>	Horned grebe*	---	---	S1B, SZN				•						
<i>Podiceps grisegena</i>	Red-necked grebe*	---	---	S3B, SZN	•		•	•						
<i>Phalacrocorax auritus</i>	Double-crested cormorant	---	---	S4B, SZN				•						•
<i>Botaurus lentiginosus</i>	American bittern	---	---	S4B, SZN		•	•	•						•
<i>Ixobrychus exilis</i>	Least bittern*	---	---	S3B, SZN			•							
<i>Ardea herodias</i>	Great blue heron	---	---	S5B, SZN		•	•							•
<i>Butorides virescens</i>	Green heron	---	---	S4B, SZN		•	•							
<i>Cathartes aura</i>	Turkey vulture	---	---	S4B, SZN			•	•						•

Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
<i>Pandion haliaetus</i>	Osprey	---	---	S4B, SZN		•	•	•					•
<i>Circus cyaneus</i>	Northern harrier	---	---	S4B, SZN		•	•	•	•				•
<i>Haliaeetus leucocephalus</i>	Bald eagle*	---	SC	S4B, SZN				•	•				•
<i>Accipiter cooperii</i>	Cooper's hawk	---	---	S4B, SZN					•				
<i>Accipiter gentilis</i>	Northern goshawk	---	---	S4					•				
<i>Accipiter striatus</i>	Sharp-shinned hawk	---	---	S5B, SZN									•
<i>Buteo platypterus</i>	Broad-winged hawk	---	---	S5B, SZN		•	•						•
<i>Buteo lineatus</i>	Red-shouldered hawk	SC	---	S4B, SZN	•								•
<i>Buteo jamaicensis</i>	Red-tailed hawk	---	---	S5B, SZN			•		•				•
<i>Buteo lagopus</i>	Rough-legged hawk*	---	---	S1B, SZN					•				•
<i>Falco columbarius</i>	Merlin	---	---	S4B, SZN									•
<i>Falco sparverius</i>	American kestrel	---	---	S5B, SZN		•	•	•	•				•
<i>Falco rusticolus</i>	Gyrfalcon	---	---	SNA					•				
<i>Rallus limicola</i>	Virginia rail	---	---	S4B, SZN			•						
<i>Porzana carolina</i>	Sora	---	---	S4B, SZN			•						•
<i>Fulica americana</i>	American coot	---	---	S4B, SZN			•						
<i>Grus canadensis</i>	Sandhill crane	---	---	S4B, SZN		•							•
<i>Charadrius vociferus</i>	Killdeer	---	---	S5B, SZN		•	•						•

Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
<i>Actitis macularia</i>	Spotted sandpiper	---	---	S5B, SZN		•	•						•
<i>Bartramia longicauda</i>	Upland sandpiper	---	---	S4B, SZN			•						•
<i>Gallinago gallinago</i>	Wilson's snipe	---	---	S5B, SZN		•	•						•
<i>Scolopax minor</i>	American woodcock	---	---	S5B, SZN			•						•
<i>Tringa flavipes</i>	Lesser yellowlegs	---	---	S4B, SZN									•
<i>Tringa melanoleuca</i>	Greater yellowlegs	---	---	S4B, SZN									•
<i>Larus philadelphia</i>	Bonaparte's gull	---	---	S4B, SZN									•
<i>Larus delawarensis</i>	Ring-billed gull	---	---	S5B, SZN		•		•	•				•
<i>Larus argentatus</i>	Herring gull	---	---	S5B, SZN		•		•	•				•
<i>Larus hyperboreus</i>	Glaucous gull	---	---	S4N					•				
<i>Larus marinus</i>	Great black-backed gull*	---	---	S2B, SZN					•				
<i>Sterna caspia</i>	Caspian tern*	---	---	S3B, SZN		•		•					
<i>Sterna hirundo</i>	Common tern	---	---	S4B, SZN		•		•					•
<i>Chlidonias niger</i>	Black tern*	---	SC	S3B, SZN	•		•						
<i>Columba livia</i>	Rock Pigeon	---	---	SE		•			•				
<i>Zenaid macroura</i>	Mourning dove	---	---	S5B, SZN		•	•	•	•				•
<i>Coccyzus americanus</i>	Yellow-billed cuckoo	---	---	S4B, SZN									•
<i>Coccyzus erythrophthalmus</i>	Black-billed cuckoo	---	---	S4B, SZN		•	•	•					•

Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
<i>Bubo virginianus</i>	Great horned owl	---	---	S5		•			•				•
<i>Strix varia</i>	Barred owl	---	---	S4S5		•	•		•				•
<i>Asio flammeus</i>	Short-eared owl*	SC	SC	S3S4B, SZN				•					•
<i>Aegolius acadicus</i>	Northern saw-whet owl	---	---	S4B, SZN		•	•						
<i>Surnia ulula</i>	Northern hawk owl	---	---	S4					•				
<i>Chordeiles minor</i>	Common nighthawk*	THR	SC	S4B, SZN		•							•
<i>Caprimulgus vociferus</i>	Whip-poor-will	THR (no schedule)	THR	S4B, SZN			•						
<i>Chaetura pelagica</i>	Chimney swift	THR	THR	S5B, SZN			•	•					
<i>Archilochus colubris</i>	Ruby-throated hummingbird	---	---	S5B, SZN		•	•	•					•
<i>Ceryle alcyon</i>	Belted kingfisher	---	---	S5B, SZN			•						•
<i>Melanerpes erythrocephalus</i>	Red-headed woodpecker*	THR	SC	S3B, SZN			•						
<i>Melanerpes carolinus</i>	Red-bellied woodpecker	---	---	S4					•				
<i>Sphyrapicus varius</i>	Yellow-bellied sapsucker	---	---	S5B, SZN		•	•	•					•
<i>Picoides pubescens</i>	Downy woodpecker	---	---	S5		•	•		•				•

Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
<i>Picoides villosus</i>	Hairy woodpecker	---	---	S5		•	•	•	•				•
<i>Colaptes auratus</i>	Northern flicker	---	---	S5B, SZN		•	•	•					•
<i>Dryocopus pileatus</i>	Pileated woodpecker	---	---	S4S5			•		•				•
<i>Contopus cooperi</i>	Olive-sided flycatcher*	THR	SC	S5B, SZN			•						•
<i>Contopus virens</i>	Eastern wood-pewee	---	---	S5B, SZN		•	•						•
<i>Empidonax alnorum</i>	Alder flycatcher	---	---	S5B, SZN		•	•	•					•
<i>Empidonax traillii</i>	Willow flycatcher	---	---	S5B, SZN				•					
<i>Empidonax minimus</i>	Least flycatcher	---	---	S5B, SZN		•	•						•
<i>Sayornis phoebe</i>	Eastern phoebe	---	---	S5B, SZN		•	•						•
<i>Myiarchus crinitus</i>	Great crested flycatcher	---	---	S5B, SZN		•	•	•					•
<i>Tyrannus tyrannus</i>	Eastern kingbird	---	---	S5B, SZN		•	•	•					•
<i>Lanius ludovicianus</i>	Loggerhead shrike	END	END	S2B, SZN									
<i>Lanius excubitor</i>	Northern shrike*	---	---	S2S3B, SZN					•				•
<i>Vireo gilvus</i>	Warbling vireo	---	---	S5B, SZN			•	•					•
<i>Vireo olivaceus</i>	Red-eyed vireo	---	---	S5B, SZN		•	•	•					•
<i>Vireo philadelphicus</i>	Philadelphia vireo	---	---	S5B, SZN									•
<i>Vireo solitarius</i>	Blue-headed vireo	---	---	S5B, SZN									•

Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
<i>Cyanocitta cristata</i>	Blue jay	---	---	S5		•	•	•	•				•
<i>Corvus brachyrhynchos</i>	American crow	---	---	S5B, SZN		•	•	•	•				•
<i>Corvus corax</i>	Common raven	---	---	S5		•	•	•	•				•
<i>Eremophila alpestris</i>	Horned lark	---	---	S5B, SZN					•				
<i>Progne subis</i>	Purple martin	---	---	S4B, SZN			•						
<i>Tachycineta bicolor</i>	Tree swallow	---	---	S5B, SZN		•	•	•					•
<i>Stelgidopteryx serripennis</i>	Northern rough-winged swallow	---	---	S5B, SZN			•						•
<i>Riparia riparia</i>	Bank swallow	---	---	S5B, SZN			•						
<i>Petrochelidon pyrrhonota</i>	Cliff swallow	---	---	S5B, SZN			•	•					
<i>Hirundo rustica</i>	Barn swallow	---	---	S5B, SZN		•	•	•					•
<i>Poecile atricapillus</i>	Black-capped chickadee	---	---	S5		•	•	•	•				•
<i>Sitta canadensis</i>	Red-breasted nuthatch	---	---	S5B, SZN			•		•				•
<i>Sitta carolinensis</i>	White-breasted nuthatch	---	---	S5		•	•	•	•				•
<i>Certhia americana</i>	Brown creeper	---	---	S5B, SZN			•		•				
<i>Regulus satrapa</i>	Golden-crowned kinglet	---	---	S5B, SZN					•				•

Scientific Name	Common Name	Conservation Status			Information Source									
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork	
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>										
<i>Regulus calendula</i>	Ruby-crowned kinglet	---	---	S5B, SZN										•
<i>Troglodytes aedon</i>	House wren	---	---	S5B, SZN			•	•						•
<i>Troglodytes troglodytes</i>	Winter wren	---	---	S5B, SZN		•		•						•
<i>Cistothorus palustris</i>	Marsh wren	---	---	S5B, SZN				•						•
<i>Cistothorus platensis</i>	Sedge wren	---	---	S4B, SZN		•								•
<i>Sialia sialis</i>	Eastern bluebird	---	---	S4S5B, SZN		•	•							•
<i>Catharus fuscenscens</i>	Veery	---	---	S4B, SZN		•	•	•						•
<i>Catharus ustulatus</i>	Swainson's thrush	---	---	S5B, SZN		•		•						•
<i>Catharus guttatus</i>	Hermit thrush	---	---	S5B, SZN		•	•							•
<i>Hyclocichla mustelina</i>	Wood thrush	---	---	S4B, SZN										•
<i>Turdus migratorius</i>	American robin	---	---	S5B, SZN		•	•	•	•					•
<i>Dumetella carolinensis</i>	Gray catbird	---	---	S5B, SZN		•	•	•						
<i>Mimus polyglottos</i>	Northern mockingbird	---	---	S4B, SZN			•							
<i>Toxostoma rufum</i>	Brown thrasher	---	---	S5B, SZN			•	•						•

Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
<i>Sturnus vulgaris</i>	European starling	---	---	SE		•	•	•	•				•
<i>Anthus rubescens</i>	American pipit	---	---	S4B, SZN									•
<i>Bombycilla garrulus</i>	Bohemian waxwing	---	---	SNA					•				
<i>Bombycilla cedrorum</i>	Cedar waxwing	---	---	S5B, SZN		•	•	•	•				•
<i>Vermivora ruficapilla</i>	Nashville warbler	---	---	S5B, SZN		•	•						•
<i>Dendroica petechia</i>	Yellow warbler	---	---	S5B, SZN		•	•	•					•
<i>Dendroica pensylvanica</i>	Chestnut-sided warbler	---	---	S5B, SZN		•	•	•					•
<i>Dendroica magnolia</i>	Magnolia warbler	---	---	S5B, SZN		•	•	•					•
<i>Dendroica caerulescens</i>	Black-throated blue warbler	---	---	S5B, SZN			•						
<i>Dendroica coronata</i>	Yellow-rumped warbler	---	---	S5B, SZN		•	•	•					•
<i>Dendroica virens</i>	Black-throated green warbler	---	---	S5B, SZN		•							•
<i>Dendroica fusca</i>	Blackburnian warbler	---	---	S5B, SZN		•	•						
<i>Dendroica castanea</i>	Bay-breasted warbler	---	---	S5B, SZN			•						•
<i>Dendroica pinus</i>	Pine warbler	---	---	S5B, SZN									•
<i>Mniotilta varia</i>	Black-and-white	---	---	S5B, SZN		•	•	•					•



Scientific Name	Common Name	Conservation Status			Information Source									
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork	
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>										
	warbler													
<i>Setophaga ruticilla</i>	American redstart	---	---	S5B, SZN		•	•	•						•
<i>Seiurus aurocapillus</i>	Ovenbird	---	---	S5B, SZN										•
<i>Seiurus noveboracensis</i>	Northern waterthrush	---	---	S5B, SZN			•	•						•
<i>Oporornis philadelphia</i>	Mourning warbler	---	---	S5B, SZN		•	•	•						•
<i>Geothlypis trichas</i>	Common yellowthroat	---	---	S5B, SZN		•	•	•						•
<i>Vermivora celata</i>	Orange-crowned warbler	---	---	S4B, SZN										•
<i>Wilsonia canadensis</i>	Canada warbler*	THR	SC	S5B, SZN			•							•
<i>Spizella pallida</i>	Clay-coloured sparrow	---	---	S4B, SZN										•
<i>Spizella passerina</i>	Chipping sparrow	---	---	S5B, SZN		•	•	•						•
<i>Spizella arborea</i>	American tree sparrow	---	---	S5B, SZN					•					•
<i>Poocetes gramineus</i>	Vesper sparrow	---	---	S4B, SZN		•	•	•						•
<i>Passerculus sandwichensis</i>	Savannah sparrow	---	---	S5B, SZN		•	•	•						•
<i>Melospiza melodia</i>	Song sparrow	---	---	S5B, SZN		•	•	•						•

Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
<i>Melospiza georgiana</i>	Swamp sparrow	---	---	S5B, SZN		•	•	•					•
<i>Melospiza lincolni</i>	Lincoln's sparrow	---	---	S5B, SZN									•
<i>Zonotrichia albicollis</i>	White-throated sparrow	---	---	S5B, SZN		•	•	•	•				•
<i>Junco hyemalis</i>	Dark-eyed junco	---	---	S5B, SZN					•				•
<i>Zonotrichia leucophrys</i>	White-crowned sparrow	---	---	S4B, SZN									•
<i>Calcarius lapponicus</i>	Lapland longspur*	---	---	S3B					•				
<i>Plectrophenax nivalis</i>	Snow bunting	---	---	SNA					•				•
<i>Piranga olivacea</i>	Scarlet tanager	---	---	S5B, SZN		•							•
<i>Cardinalis cardinalis</i>	Northern cardinal	---	---	S5					•				•
<i>Pheucticus ludovicianus</i>	Rose-breasted grosbeak	---	---	S5B, SZN		•	•	•					•
<i>Passerina cyanea</i>	Indigo bunting	---	---	S5B, SZN		•	•						•
<i>Dolichonyx oryzivorus</i>	Bobolink	THR (no schedule)	THR	S4B, SZN		•	•	•					•
<i>Agelaius phoeniceus</i>	Red-winged blackbird	---	---	S5B, SZN		•	•	•	•				•
<i>Sturnella magna</i>	Eastern meadowlark	---	---	S5B, SZN		•	•	•					•

Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
<i>Euphagus carolinus</i>	Rusty blackbird	SC	---	S5B, SZN					•				•
<i>Euphagus cyanocephalus</i>	Brewer's blackbird	---	---	S4B, SZN			•						
<i>Quiscalus quiscula</i>	Common grackle	---	---	S5B, SZN		•	•	•	•				•
<i>Molothrus ater</i>	Brown-headed cowbird	---	---	S5B, SZN		•	•	•	•				•
<i>Icterus galbula</i>	Baltimore oriole	---	---	S5B, SZN		•	•	•					•
<i>Pinicola enucleator</i>	Pine grosbeak	---	---	S4B					•				
<i>Carpodacus purpureus</i>	Purple finch	---	---	S5B, SZN		•	•		•				•
<i>Carpodacus mexicanus</i>	House finch	---	---	SE					•				•
<i>Loxia leucoptera</i>	White-winged crossbill	---	---	S5B, SZN					•				
<i>Carduelis flammea</i>	Common redpoll	---	---	S4B, SZN					•				•
<i>Carduelis pinus</i>	Pine siskin	---	---	S5B, SZN					•				
<i>Carduelis tristis</i>	American goldfinch	---	---	S5B, SZN		•	•		•				•
<i>Coccothraustes vespertinus</i>	Evening grosbeak	---	---	S5B, SZN					•				
<i>Passer domesticus</i>	House sparrow	---	---	SE		•	•		•				
<b>MAMMALS</b>													
<i>Sorex cinereus</i>	Common Shrew	---	---	S5						•			
<i>Sorex fumeus</i>	Smoky Shrew	---	---							•			

Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
<i>Sorex hoyi</i>	Pygmy Shrew	---	---	S4						•			
<i>Blarina brevicauda</i>	Northern Short-tailed Shrew	---	---	S5						•			
<i>Condylura cristata</i>	Star-nosed Mole	---	---	S5						•			
<i>Myotis lucifugus</i>	Little Brown Bat	---	---	S5						•			
<i>Myotis septentrionalis</i>	Northern Long-eared Bat*	---	---	S3						•			
<i>Lepus americanus</i>	Snowshoe Hare	---	---	S5						•			•
<i>Tamias striatus</i>	Eastern Chipmunk	---	---	S5						•			•
<i>Marmota monax</i>	Woodchuck	---	---	S5						•			
<i>Sciurus carolinensis</i>	Gray Squirrel	---	---	S5						•			
<i>Tamiasciurus hudsonicus</i>	Red Squirrel	---	---	S5						•			•
<i>Glaucomys sabrinus</i>	Northern Flying Squirrel	---	---	S5						•			
<i>Castor canadensis</i>	Beaver	---	---	S5						•			•
<i>Peromyscus maniculatus</i>	Deer Mouse	---	---	S5						•			
<i>Clethrionomys gapperi</i>	Southern Red-backed Vole	---	---	S5						•			
<i>Microtus pennsylvanicus</i>	Meadow Vole	---	---	S5						•			
<i>Ondatra zibethicus</i>	Muskrat	---	---	S5						•			

Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
<i>Rattus norvegicus</i>	Norway Rat	---	---	SE						•			
<i>Mus musculus</i>	House Mouse	---	---	SE						•			
<i>Zapus hudsonius</i>	Meadow Jumping Mouse	---	---	S5						•			
<i>Erethizon dorsatum</i>	Porcupine	---	---	S5						•			•
<i>Canis latrans</i>	Coyote	---	---	S5						•			•
<i>Canis lupus</i>	Gray wolf	---	---	S4						•			
<i>Vulpes vulpes</i>	Red Fox	---	---	S5						•			•
<i>Ursus americanus</i>	Black Bear	---	---	S5						•			•
<i>Procyon lotor</i>	Raccoon	---	---	S5						•			•
<i>Martes pennanti</i>	Marten	---	---	S5						•			
<i>Mustela erminea</i>	Ermine	---	---	S5						•			
<i>Mustela vison</i>	Mink	---	---	S5						•			
<i>Mephitis mephitis</i>	Striped Skunk	---	---	S5						•			•
<i>Lontra canadensis</i>	River Otter	---	---	S5						•			
<i>Lynx canadensis</i>	Canada Lynx	---	---	S5						•			
<i>Lynx rufus</i>	Bobcat	---	---	S4						•			
<i>Odocoileus virginianus</i>	White-tailed Deer	---	---	S5						•			•
<i>Alces americanus</i>	Moose	---	---	S5						•			
<b>HERPETOZOA</b>													
<i>Necturus maculosus</i>	Common mudpuppy	---	---	S4							•		

Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
<i>Notophthalmus viridescens viridescens</i>	Red-spotted newt	---	---	S5							•		
<i>Ambystoma laterale</i>	Blue-spotted salamander	---	---	S4							•		
<i>Ambystoma jeffersonianum-laterale "complex"</i>	Jefferson-Blue-spotted salamander complex	---	---	-							•		
<i>Ambystoma maculatum</i>	Spotted salamander	---	---	S4							•		
<i>Hemidactylum scutatum</i>	Four-toed salamander	---	---	S4							•		
<i>Plethodon cinereus</i>	Northern redback salamander	---	---	S5							•		
<i>Bufo americanus</i>	American toad	---	---	S5							•		•
<i>Pseudacris crucifer</i>	Spring peeper	---	---	S5							•		•
<i>Hyla versicolor</i>	Gray treefrog	---	---	S5							•		•
<i>Rana sylvatica</i>	Wood frog	---	---	S5							•		•
<i>Rana pipiens</i>	Northern leopard frog	---	---	S5							•		•
<i>Rana clamitans</i>	Green frog	---	---	S5							•		•
<i>Rana catesbeiana</i>	Bull frog	---	---	S4							•		•
<i>Chelydra serpentina</i>	Common snapping turtle*	SC (no schedul	SC	S5							•		•

Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
		e)											
<i>Chrysemys picta marginata</i>	Midland painted turtle	---	---	S5							•		•
<i>Emydoidea blandingii</i>	Blanding's turtle	THR	THR	S3							•		
<i>Thamnophis sirtalis sirtalis</i>	Eastern garter snake	---	---	S5							•		•
<i>Nerodia sipedon sipedon</i>	Northern water snake	---	---	S5							•		
<i>Storeria occipitomaculata occipitomaculata</i>	Northern Redbelly snake	---	---	S5							•		
<i>Storeria dekayi</i>	Brown snake	---	---	S5							•		•
<i>Opheodrys vernalis</i>	Smooth green snake	---	---	S4							•		
<i>Diadophis punctatus edwardsi</i>	Northern ringneck snake	---	---	S4							•		
<i>Lampropeltis triangulum</i>	Eastern milk snake*	SC	SC	S3	•						•		
<i>Sistrurus catenatus</i>	Eastern massasauga	THR	THR	S3	•						•		
<b>ODONTATA</b>													
<i>Calopteryx maculata</i>	Ebony jewelwing	---	---	S5								•	
<i>Lestes disjunctus</i>	Common	---	---	S5								•	

Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
	spreadwing												
<i>Lestes rectangularis</i>	Slender spreadwing	---	---	S5								•	
<i>Enallagma carunculatum</i>	Tule bluet	---	---	S5								•	
<i>Enallagma ebrium</i>	Marsh bluet	---	---	S5								•	
<i>Enallagma hageni</i>	Hagen's bluet	---	---	S5								•	
<i>Ischnura verticalis</i>	Eastern forktail	---	---	S5								•	
<i>Nehalennia irene</i>	Sedge sprite	---	---	S5								•	
<i>Aeshna canadensis</i>	Canada darner	---	---	S5								•	
<i>Aeshna interrupta interrupta</i>	Variable (interrupted darner)	---	---	S5								•	
<i>Aeshna umbrosa</i>	Shadow darner	---	---	S5								•	
<i>Anax junius</i>	Common green darner	---	---	S5								•	
<i>Boyeria grafiana</i>	Ocellated darner	---	---	S4								•	
<i>Ophiogomphus colubrinus</i>	Boreal snaketail	---	---	S4								•	
<i>Macromia illinoensis</i>	Illinois River Cruiser	---	---	S4								•	
<i>Somatochlora williamsoni</i>	Williamson's emerald	---	---	S4								•	
<i>Celithemis elisa</i>	Calico pennant	---	---	S5								•	



Scientific Name	Common Name	Conservation Status			Information Source								
		National	Provincial		NHIC <sup>4</sup>	OBBA <sup>5</sup> Square # 17ML18	OBBA <sup>5</sup> Square # 17ML28	OBBA <sup>5</sup> Square # 17ML29	CBC <sup>6</sup>	Ontario Mammal Atlas <sup>7</sup>	Herpetofaunal Atlas <sup>8</sup>	Odonata Atlas <sup>9</sup>	Observed during fieldwork
		SARA <sup>1</sup>	ESA, 2007 <sup>2</sup>	SRank <sup>3</sup>									
<i>Sympetrum obtrusum</i>	White-faced meadowhawk	---	---	S5								•	
<b>LEPIDOPTERA</b>													
<i>Danaus plexippus</i>	Monarch*	SC	SC	S2N,S4B									•
<i>Limnitis arthemis</i>	White admiral	---	---	S5									•

<sup>1</sup>Species at Risk Act; <sup>2</sup>Endangered Species Act; <sup>3</sup>SRank Code (see below); <sup>4</sup>MNR NHIC Database; <sup>5</sup>Ontario Breeding Bird Atlas; <sup>6</sup>Christmas Bird Count; <sup>7</sup>Dobbyn. (1994); <sup>8</sup>Oldham and Weller(2000);

<sup>9</sup>Ontario Odonata Atlas. For all codes, please see **Table E.3**. • denotes occurrence record and/or project location includes species range; --- denotes no information, no status or not applicable;

\* species of conservation concern

# APPENDIX E

## E2: Conservation Status Codes



## Overview of Codes for the Conservation Status of Species

### Federal Conservation Status

Federal Status: Status assigned by the Committee on the Status of Endangered Wildlife in Canada. (COSEWIC, 2007) and listed under the *Species at Risk Act*

- EXT Extinct. A wildlife species that no longer exists.
- EXP Extirpated. A wildlife species no longer existing in the wild in Canada, but occurring elsewhere.
- END Endangered. A wildlife species facing imminent extirpation or extinction.
- THR Threatened. A wildlife species likely to become endangered if limiting factors are not reversed.
- SC Special Concern. A wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.
- DD Data Deficient - A wildlife species for which there is inadequate information to make a direct, or indirect, assessment of its risk of extinction.
- NAR Not At Risk. A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.

### Provincial Conservation Status

Provincial Status: Status assigned by the Ontario Ministry of Natural Resources (OMNR, 2006) under the *Endangered Species Act, 2007*

- EXT Extinct. A species that no longer exists anywhere.
- EXP Extirpated. A species that no longer exists in the wild in Ontario but still occurs elsewhere.
- END Endangered. A species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's ESA.
- THR Threatened. A species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.
- SC Special Concern. A species with characteristics that make it sensitive to human activities or natural events.
- DD Data Deficient. A species for which there is insufficient information for a provincial status recommendation.
- NAR Not At Risk. A species that is currently not listed as risk.

### Provincial (S) Rank

Provincial (or Subnational) ranks are used by the Natural Heritage Information Centre (2007) to set protection priorities for rare species and natural communities. These ranks are not legal designations. Provincial ranks are assigned in a manner similar to that described for global ranks, but consider only those factors within the political boundaries of Ontario. By comparing the global and provincial ranks, the status, rarity, and the urgency of conservation needs can be ascertained. The NHIC

evaluates provincial ranks on a continual basis and produces updated lists at least annually.

- S1 Extremely rare in Ontario; usually 5 or fewer occurrences in the province or very few remaining individuals; often especially vulnerable to extirpation.
- S2 Very rare in Ontario; usually between 5 and 20 occurrences in the province or with many individuals in fewer occurrences; often susceptible to extirpation.
- S3 Rare to uncommon in Ontario; usually between 20 & 100 occurrences in the province; may have fewer occurrences, but with a large number of individuals in some populations; may be susceptible to large-scale disturbances. Most species with an S3 rank are assigned to the watch list, unless they have a relatively high global rank.
- S4 Common and apparently secure in Ontario; usually with more than 100 occurrences in the province.
- S5 Very common and demonstrably secure in Ontario.
- SH Historically known from Ontario, but not verified recently (typically not recorded in the province in the last 20 years); however suitable habitat is thought to be still present in the province and there is reasonable expectation that the species may be rediscovered.
- SR Reported for Ontario, but without persuasive documentation which would provide a basis for either accepting or rejecting the report.
- SRF Reported falsely from Ontario.
- SX Apparently extirpated from Ontario, with little likelihood of rediscovery. Typically not seen in the province for many decades, despite searches at known historic sites.
- SE Exotic; not believed to be a native component of Ontario's flora.
- S? Not Ranked Yet, or if following a ranking, Rank Uncertain (e.g. S3?). S? Species have not had a rank assigned.
- SU Unrankable, often because of low search effort or cryptic nature of the species, there is insufficient information available to assign a more accurate rank; more data is needed.

#### **Coefficient of Conservatism (CC) Definition (Plants)**

Each native taxon was assigned a rank of 0 to 10 ("coefficient of conservatism") based on its degree of fidelity to a range of synecological parameters. Plants found in a wide variety of plant communities, including disturbed sites, were assigned ranks of 0 to 3. Taxa that typically are associated with a specific plant community, but tolerate moderate disturbance, were assigned ranks of 4 to 6. Rankings of 7 to 8 were applied to those taxa associated with a plant community in an advanced successional stage that has undergone minor disturbance. Those plants with high degrees of fidelity to a narrow range of synecological parameters were assigned a value of 9 to 10

#### **Wetness Index (CW) (Plants)**

The wetness index gives an indication of where plant species are typically found. A wetness value (coefficient of wetness) between -5 and 5. A value of -5 was assigned to

Obligate Wetland (OBL) species and a value of 5 to Obligate Upland species (UPL), with intermediate values assigned to the remaining categories. The wetland categories and their corresponding values are as follows:

These categories are defined as follows:

OBL	-5	OBL Wetland	Obligate Wetland	Occurs almost always in wetlands under natural conditions (estimated > 99% probability).
FACW+	-4	FACW	Facultative Wetland	Usually occurs in wetlands, but occasionally found in non-wetlands (estimated 67-99% probability).
FACW	-3			
FACW-	-2			
FAC +	-1	FAC	Facultative	Equally likely to occur in wetlands or non-wetlands (estimated 34-66% probability).
FAC 0				
FAC-	1			
FACU+	2	FACU	Facultative Upland	Occasionally occurs in wetlands, but usually occurs in non-wetlands (estimated 1-33 % probability).
FACU	3			
FACU-	4			
UPL	5	UPL	Obligate Upland	Occurs almost never in wetlands under natural conditions (estimated <1 % probability).