

# **Appendix C: Natural Features Field Inventory Results**



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**Table C-1: Vascular Plant Species Inventory**

<b>Scientific Name</b>		<b>Common Name</b>	<b>Provincial Status<sup>1</sup></b>
<b><u>PTERIDOPHYTES</u></b>		<b><u>FERNS &amp; ALLIES</u></b>	
<b>Dryopteridaceae</b>		<b>Wood Fern Family</b>	
<i>Athyrium</i>	<i>filix-femina var. angustum</i>	Northern Lady Fern	S5
<i>Dryopteris</i>	<i>carthusiana</i>	Spinulose Wood Fern	S5
<i>Matteuccia</i>	<i>struthiopteris var. pennsylvanica</i>	Ostrich Fern	S5
<i>Onoclea</i>	<i>sensibilis</i>	Sensitive Fern	S5
<b>Equisetaceae</b>		<b>Horsetail Family</b>	
<i>Equisetum</i>	<i>arvense</i>	Field Horsetail	S5
<b><u>GYMNOSPERMS</u></b>		<b><u>CONIFERS</u></b>	
<b>Cupressaceae</b>		<b>Cedar Family</b>	
<i>Juniperus</i>	<i>virginiana</i>	Eastern Red Cedar	S5
<b>Pinaceae</b>		<b>Pine Family</b>	
<i>Picea</i>	<i>glauca</i>	White Spruce	S5
<i>Pinus</i>	<i>strobus</i>	Eastern White Pine	S5
<i>Pinus</i>	<i>sylvestris</i>	Scotch Pine	SE5
<b><u>DICOTYLEDONS</u></b>		<b><u>DICOTS</u></b>	
<b>Anacardiaceae</b>		<b>Sumac or Cashew Family</b>	
<i>Rhus</i>	<i>typhina</i>	Staghorn Sumac	S5
<i>Toxicodendron</i>	<i>radicans var. rydbergii</i>	Western Poison-ivy	S5
<b>Apiaceae</b>		<b>Carrot or Parsley Family</b>	
<i>Aegopodium</i>	<i>podagraria</i>	Goutweed	SE5
<i>Daucus</i>	<i>carota</i>	Wild Carrot	SE5
<b>Apocynaceae</b>		<b>Dogbane Family</b>	
<i>Asclepias</i>	<i>syriaca</i>	Common Milkweed	S5
<i>Cynanchum</i>	<i>rossicum</i>	Swallow-wort	SE5
<i>Achillea</i>	<i>millefolium ssp. millefolium</i>	Common Yarrow	SE?
<i>Arctium</i>	<i>minus</i>	Common Burdock	SE5
<i>Cirsium</i>	<i>arvense</i>	Canada Thistle	SE5
<i>Erigeron</i>	<i>annuus</i>	Annual Fleabane	S5
<i>Erigeron</i>	<i>strigosus</i>	Daisy Fleabane	S5
<i>Eupatorium</i>	<i>maculatum var. maculatum</i>	Spotted Joe-pye-weed	S5

<b>Scientific Name</b>		<b>Common Name</b>	<b>Provincial Status<sup>1</sup></b>
<i>Leucanthemum</i>	<i>vulgare</i>	Ox-eye Daisy	SE5
<i>Solidago</i>	<i>altissima</i> ssp. <i>altissima</i>	Tall Goldenrod	S5
<i>Solidago</i>	<i>flexicaulis</i>	Zig-zag Goldenrod	S5
<i>Solidago</i>	<i>juncea</i>	Early Goldenrod	S5
<i>Symphyotrichum</i>	<i>cordifolium</i>	Heart-leaved Aster	S5
<i>Symphyotrichum</i>	<i>lanceolatum</i> ssp. <i>lanceolatum</i>	White Panicked Aster	S5
<i>Symphyotrichum</i>	<i>lateriflorum</i> var. <i>lateriflorum</i>	Calico Aster	S5
<i>Symphyotrichum</i>	<i>puniceum</i> var. <i>puniceum</i>	Purple-stemmed Aster	S5
<i>Taraxacum</i>	<i>officinale</i>	Common Dandelion	SE5
<i>Tussilago</i>	<i>farfara</i>	Coltsfoot	SE5
<b>Balsaminaceae</b>		<b>Touch-me-not Family</b>	
<i>Impatiens</i>	<i>capensis</i>	Spotted Touch-me-not	S5
<b>Berberidaceae</b>		<b>Barberry Family</b>	
<i>Caulophyllum</i>	<i>thalictroides</i>	Blue Cohosh	S5
<i>Podophyllum</i>	<i>peltatum</i>	May-apple	S5
<b>Betulaceae</b>		<b>Birch Family</b>	
<i>Betula</i>	<i>papyrifera</i>	White Birch	S5
<i>Ostrya</i>	<i>virginiana</i>	Hop Hornbeam	S5
<b>Caprifoliaceae</b>		<b>Honeysuckle Family</b>	
<i>Lonicera</i>	<i>tatarica</i>	Tartarian Honeysuckle	SE5
<i>Sambucus</i>	<i>canadensis</i>	Common Elderberry	S5
<i>Sambucus</i>	<i>racemosa</i> ssp. <i>pubens</i>	Red-berried Elderberry	S5
<i>Viburnum</i>	<i>lentago</i>	Nannyberry	S5
<i>Viburnum</i>	<i>opulus</i>	Guelder Rose	SE4
<b>Cornaceae</b>		<b>Dogwood Family</b>	
<i>Cornus</i>	<i>alternifolia</i>	Alternate-leaved Dogwood	S5
<i>Cornus</i>	<i>amomum</i> ssp. <i>obliqua</i>	Silky Dogwood	S5
<i>Cornus</i>	<i>stolonifera</i>	Red-osier Dogwood	S5
<b>Cucurbitaceae</b>		<b>Gourd Family</b>	
<i>Echinocystis</i>	<i>lobata</i>	Prickly Cucumber	S5
<b>Fabaceae</b>		<b>Pea Family</b>	
<i>Lotus</i>	<i>corniculatus</i>	Bird's-foot Trefoil	SE5
<i>Melilotus</i>	<i>alba</i>	White Sweet-clover	SE5
<i>Robinia</i>	<i>pseudo-acacia</i>	Black Locust	SE5
<i>Trifolium</i>	<i>pratense</i>	Red Clover	SE5

<b>Scientific Name</b>		<b>Common Name</b>	<b>Provincial Status<sup>1</sup></b>
<i>Vicia</i>	<i>cracca</i>	Tufted Vetch	SE5
<b>Fagaceae</b>		<b>Beech Family</b>	
<i>Fagus</i>	<i>grandifolia</i>	American Beech	S5
<b>Geraniaceae</b>		<b>Geranium Family</b>	
<i>Geranium</i>	<i>robertianum</i>	Herb-robert	SE5
<b>Grossulariaceae</b>		<b>Currant Family</b>	
<i>Ribes</i>	<i>cynosbati</i>	Prickly Gooseberry	S5
<b>Guttiferae</b>		<b>St. John's-wort Family</b>	
<i>Hypericum</i>	<i>perforatum</i>	Common St. John's-wort	SE5
<b>Juglandaceae</b>		<b>Walnut Family</b>	
<i>Juglans</i>	<i>cinerea</i>	Butternut	S3?
<b>Lamiaceae</b>		<b>Mint Family</b>	
<i>Mentha</i>	<i>arvensis ssp. borealis</i>	American Wild Mint	S5
<b>Oleaceae</b>		<b>Olive Family</b>	
<i>Fraxinus</i>	<i>americana</i>	White Ash	S5
<i>Fraxinus</i>	<i>pennsylvanica</i>	Red Ash	S5
<b>Onagraceae</b>		<b>Evening-primrose Family</b>	
<i>Circaea</i>	<i>lutetiana ssp. canadensis</i>	Yellowish Enchanter's Nightshade	S5
<i>Epilobium</i>	<i>hirsutum</i>	Great Hairy Willow-herb	SE5
<b>Papaveraceae</b>		<b>Poppy Family</b>	
<i>Sanguinaria</i>	<i>canadensis</i>	Bloodroot	S5
<b>Plantaginaceae</b>		<b>Plantain Family</b>	
<i>Plantago</i>	<i>lanceolata</i>	Ribgrass	SE5
<b>Polygonaceae</b>		<b>Smartweed Family</b>	
<i>Rumex</i>	<i>crispus</i>	Curly-leaf Dock	SE5
<b>Pyrolaceae</b>		<b>Wintergreen Family</b>	
<i>Pyrola</i>	<i>elliptica</i>	Shinleaf	S5
<b>Ranunculaceae</b>		<b>Buttercup Family</b>	
<i>Actaea</i>	<i>pachypoda</i>	White Baneberry	S5
<i>Actaea</i>	<i>rubra</i>	Red Baneberry	S5

<b>Scientific Name</b>		<b>Common Name</b>	<b>Provincial Status<sup>1</sup></b>
<i>Anemone</i>	<i>acutiloba</i>	Sharp-lobed Hepatica	S5
<i>Anemone</i>	<i>virginiana</i> var. <i>virginiana</i>	Thimbleweed	S5
<i>Ranunculus</i>	<i>abortivus</i>	Kidney-leaf Buttercup	S5
<i>Ranunculus</i>	<i>acris</i>	Tall Buttercup	SE5
<b>Rhamnaceae</b>		<b>Buckthorn Family</b>	
<i>Rhamnus</i>	<i>cathartica</i>	Common Buckthorn	SE5
<b>Rosaceae</b>		<b>Rose Family</b>	
<i>Crataegus</i>	<i>monogyna</i>	English Hawthorn	SE5
<i>Fragaria</i>	<i>vesca</i> ssp. <i>americana</i>	Woodland Strawberry	S5
<i>Fragaria</i>	<i>virginiana</i> ssp. <i>virginiana</i>	Scarlet Strawberry	SU
<i>Geum</i>	<i>canadense</i>	White Avens	S5
<i>Malus</i>	<i>pumila</i>	Common Crabapple	SE5
<i>Prunus</i>	<i>serotina</i>	Black Cherry	S5
<i>Prunus</i>	<i>virginiana</i> ssp. <i>virginiana</i>	Choke Cherry	S5
<i>Rosa</i>	<i>multiflora</i>	Multiflora Rose	SE4
<i>Rubus</i>	<i>allegheniensis</i>	Alleghany Blackberry	S5
<i>Rubus</i>	<i>idaeus</i> ssp. <i>strigosus</i>	Wild Red Raspberry	S5
<i>Rubus</i>	<i>occidentalis</i>	Thimble-berry	S5
<i>Rubus</i>	<i>odoratus</i>	Purple Flowering Raspberry	S5
<i>Sorbus</i>	<i>aucuparia</i>	European Mountain-ash	SE4
<b>Rubiaceae</b>		<b>Madder Family</b>	
<i>Galium</i>	<i>mollugo</i>	White Bedstraw	SE5
<b>Salicaceae</b>		<b>Willow Family</b>	
<i>Populus</i>	<i>grandidentata</i>	Large-tooth Aspen	S5
<i>Populus</i>	<i>tremuloides</i>	Trembling Aspen	S5
<i>Salix</i>	<i>discolor</i>	Pussy Willow	S5
<i>Salix</i>	<i>eriocephala</i>	Missouri Willow	S5
<i>Salix</i>	<i>fragilis</i>	Crack Willow	SE5
<b>Sapindaceae</b>		<b>Maple Family</b>	
<i>Acer</i>	<i>negundo</i>	Manitoba Maple	S5
<i>Acer</i>	<i>saccharum</i>	Sugar Maple	S5
<b>Scrophulariaceae</b>		<b>Figwort Family</b>	
<i>Verbascum</i>	<i>thapsus</i>	Common Mullein	SE5
<b>Solanaceae</b>		<b>Nightshade Family</b>	
<i>Solanum</i>	<i>dulcamara</i>	Bitter Nightshade	SE5

<b>Scientific Name</b>		<b>Common Name</b>	<b>Provincial Status<sup>1</sup></b>
<b>Tiliaceae</b>		<b>Linden Family</b>	
<i>Tilia</i>	<i>americana</i>	American Basswood	S5
<b>Ulmaceae</b>		<b>Elm Family</b>	
<i>Ulmus</i>	<i>americana</i>	White Elm	S5
<b>Urticaceae</b>		<b>Nettle Family</b>	
<i>Urtica</i>	<i>dioica ssp. gracilis</i>	American Stinging Nettle	S5
<b>Verbenaceae</b>		<b>Vervain Family</b>	
<i>Verbena</i>	<i>hastata</i>	Blue Vervain	S5
<b>Violaceae</b>		<b>Violet Family</b>	
<i>Viola</i>	<i>pubescens</i>	Downy Yellow Violet	S5
<b>Vitaceae</b>		<b>Grape Family</b>	
<i>Parthenocissus</i>	<i>inserta</i>	Inserted Virginia-creeper	S5
<i>Vitis</i>	<i>riparia</i>	Riverbank Grape	S5
<b><u>MONOCOTYLEDONS</u></b>		<b><u>MONOCOTS</u></b>	
<b>Araceae</b>		<b>Arum Family</b>	
<i>Arisaema</i>	<i>triphyllum ssp. triphyllum</i>	Small Jack-in-the-pulpit	S5
<b>Cyperaceae</b>		<b>Sedge Family</b>	
<i>Carex</i>	<i>arctata</i>	Drooping Wood Sedge	S5
<i>Carex</i>	<i>bebbii</i>	Bebb's Sedge	S5
<i>Carex</i>	<i>blanda</i>	Woodland Sedge	S5
<i>Carex</i>	<i>crisatella</i>	Crested Sedge	S5
<i>Carex</i>	<i>gracillima</i>	Graceful Sedge	S5
<i>Carex</i>	<i>granularis</i>	Meadow Sedge	S5
<i>Carex</i>	<i>pellita</i>	Woolly Sedge	S5
<i>Carex</i>	<i>retrorsa</i>	Retrorsed Sedge	S5
<i>Carex</i>	<i>spicata</i>	Spiked Sedge	SE5
<i>Carex</i>	<i>stipata var. stipata</i>	Awl-fruited Sedge	S5
<i>Carex</i>	<i>vulpinoidea</i>	Fox Sedge	S5
<i>Scirpus</i>	<i>atrovirens</i>	Dark-green Bulrush	S5
<b>Juncaceae</b>		<b>Rush Family</b>	
<i>Juncus</i>	<i>dudleyi</i>	Dudley's Rush	S5
<b>Liliaceae</b>		<b>Lily Family</b>	

<b>Scientific Name</b>		<b>Common Name</b>	<b>Provincial Status<sup>1</sup></b>
<i>Allium</i>	<i>tricoccum</i>	Wild Leek	S5
<i>Erythronium</i>	<i>americanum ssp. americanum</i>	Yellow Dog's-tooth Violet	S5
<i>Maianthemum</i>	<i>racemosum ssp. racemosum</i>	False Solomon's Seal	S5
<i>Trillium</i>	<i>erectum</i>	Purple Trillium	S5
<i>Trillium</i>	<i>grandiflorum</i>	White Trillium	S5
<b>Orchidaceae</b>		<b>Orchid Family</b>	
<i>Epipactis</i>	<i>helleborine</i>	Common Helleborine	SE5
<b>Poaceae</b>		<b>Grass Family</b>	
<i>Agrostis</i>	<i>gigantea</i>	Red-top	SE5
<i>Bromus</i>	<i>inermis ssp. inermis</i>	Awnless Brome	SE5
<i>Dactylis</i>	<i>glomerata</i>	Orchard Grass	SE5
<i>Glyceria</i>	<i>striata</i>	Fowl Meadow Grass	S4S5
<i>Phalaris</i>	<i>arundinacea</i>	Reed Canary Grass	S5
<i>Phleum</i>	<i>pratense ssp. pratense</i>	Timothy	SE5
<b>Typhaceae</b>		<b>Cattail Family</b>	
<i>Typha</i>	<i>latifolia</i>	Broad-leaved Cattail	S5

### **Species Diversity**

Total Species: **128**

Native Species: **90**

Exotic Species **38**

<sup>1</sup>NHIC (2010a): S5 = secure; S4 = apparently secure; S3 = vulnerable; SU = unrankable; SE = exotic; ? = indicates uncertainty in the assigned rank.



**Table C-2: Description of Ecological Land Classification (ELC) Communities**

<b>ELC TYPE</b>	<b>Community Description</b>
<b>FOREST (FO)</b>	
<b>Deciduous Forest (FOD)</b>	
FOD5-1 (3.2 ha) Dry – Fresh Sugar Maple Deciduous Forest	This mature upland community was dominated by sugar maple in the canopy, sub-canopy and understory layers, with occasional occurrences of American beech in the canopy and hop hornbeam in the subcanopy. The most abundant ground layer species was enchanter's nightshade, with occasional to abundant occurrences of sugar maple seedlings, wild leek, white trillium, drooping woodland sedge, zig-zag goldenrod, and calico aster. The community contained a small inclusion of FODM4-4
FOD8-1 (1.3 ha) Fresh – Moist Poplar Deciduous Forest	This mid-age, lowland community was situated on both sides of a dry watercourse. The most abundant canopy and sub-canopy species was trembling aspen, with associations of white elm, basswood and Manitoba maple. Butternut was abundant in the sub-canopy. Common crabapple was abundant in the shrub layer along with buckthorn, Manitoba maple, and white elm. Like the FOD5-1 community, enchanter's nightshade dominated the ground cover. Occasional species observed included jack-in-the-pulpit, tall goldenrod, dandelion, woodland strawberry, ostrich fern, graceful sedge, meadow sedge, fowl manna grass, field horsetail, tall buttercup, and white trillium.
FODM4-4 (0.2 ha) Dry – Fresh Ironwood Deciduous Forest Type	This community was an inclusion in the larger FOD5-1 community. Ironwood dominated the canopy, while zig-zag goldenrod was the most abundant ground species.
<b>CULTURAL (CU)</b>	
<b>Cultural Meadow (CUM)</b>	
CUM1 Dry – Moist Old Field Meadow	This community type occurred in several areas on site as a complex with CUT1 or THDM4 communities. It typically consisted of a dense layer of ground vegetation species, with little woody vegetation. The most frequently observed species included tufted vetch, white bedstraw, and tall goldenrod, with occasional observations of common st-john's wort, common milkweed, timothy grass, annual fleabane, reed-canary grass, and spiked sedge.

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**Cultural Thicket (CUT)**

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CUT1 (2.2 ha)

Mineral Cultural Thicket

This community type occurred in several areas on site as a complex with CUM1 communities. These communities generally consisted of shrub layers composed primarily of staghorn sumac, common buckthorn, and red-osier dogwood, with rare to occasional occurrences of pussy willow and regenerating tree species. Riverbank grape and Allegheny blackberry were abundant in the ground layer.

THDM4 (0.3 & 0.9 ha)

Dry – Fresh Deciduous Regeneration Thicket

This community occurred at the eastern edge of the property as a complex with the CUM1 community type. Its composition consisted mainly of regenerating black locust trees, with occasional occurrences of green ash, and rare occurrences of common buckthorn, long-beaked willow, English hawthorn, and other young tree species.

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**MARSH (MA)**

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**Meadow Marsh (MAM)**

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MAM2-2 (1.9 ha)

Reed-canary Grass Mineral Meadow Marsh, with inclusions of SWT2-5 (0.13 ha) (Red-osier Mineral Thicket Swamp) and MAMM1-2 (0.05 ha) (Cattail Graminoid Mineral Meadow Marsh)

This dry meadow marsh community consisted of a ground layer dominated by reed-canary grass, with abundant to occasional occurrences of other herbaceous species such as swamp aster, tall goldenrod, crested sedge, panicked aster and dark-green bulrush, among others. This community also contained an inclusion of red-osier dogwood mineral thicket swamp, confined to its western edge, and an inclusion of cattail graminoid mineral meadow marsh in its interior.

No surface water was present at the time of the survey.

MAM2-2 (0.4 ha)

Reed-canary Grass Mineral Meadow Marsh, with an inclusion of SWT2-2 (0.2 ha) (Willow Mineral Thicket Swamp)

This dry meadow marsh community consisted of a dense ground layer dominated by reed canary grass, with rare occurrences of curly dock and wild cucumber.

Along its eastern edge was a small inclusion of willow thicket swamp, primarily consisting of Missouri and pussy willows.

No surface water was present at the time of the survey.

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**SWAMP (SW)**

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**Deciduous Swamp (SWD)**

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SWD4-1 (0.4ha)

Willow Mineral Deciduous Swamp

This community had a canopy consisting mainly of crack willow, with a ground layer consisting of reed-canary grass with occasional occurrences of spotted-touch-me-not, stinging nettle, Dudley's rush, tall goldenrod, and several sedge species, among others.

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**Table C-3: Water Quality Results for Reaches 1 and 2 (June 26, 2012)**

<b>Parameter</b>	<b>Inventory Point Number</b>						
	<b>1-1</b>	<b>1-2</b>	<b>1-3</b>	<b>1-4</b>	<b>1-5</b>	<b>2-1</b>	<b>2-2</b>
Air Temperature (°C)	25	25	25	25	25	25	25
Water Temperature (°C)	13.35 @ 10:13	16.09 @11:05	15.9 @11:30	15.52 @ 11:51	n/a	n/a	18.53 @ 14:32
Conductivity (us/cm)	390	621	627	559	n/a	n/a	705
Dissolved Oxygen (mg/L)	10.33	9.48	9.13	8.91	n/a	n/a	8.7
pH	8.88	8.71	8.59	8.49	n/a	n/a	8.51

**Table C-4: Habitat Descriptions for Reaches 1 and 2 (June 26, 2012)**

Parameter	Inventory Point Number						
	1-1	1-2	1-3	1-4	1-5	2-1	2-2
UTM	672666 4872331	0672676 4872582	0672664 4872657	0672678 4872655	0673122 4872836	0673755 4872573	0673761 4872613
water velocity	slow	slow	slow	slow	no water	no water	slow
In stream cover	undercut banks and cobble	undercut banks, 10% cover	undercut banks, 50% cover	undercut banks, 40% cover	undercut banks, 75% cover	60% cover	75% cover
Bank stability	well vegetated	all vegetated	50% eroding	20% eroding	all vegetated	all vegetated- no defined channel	all vegetated
substrate	cobble, gravel and silt	silt	clay, silt and gravel	silt, sand, clay, muck and detritus	sand, clay, gravel and silt	silt and detritus	clay, muck, detritus and silt
Mean wetted width (m)	0.5	0.4	0.5	0.5	1	no defined channel- dry	0.3
Bank full (m)	2.5	1.5	3	1	2	no defined channel- dry	1
Mean depth (m)	0.1	0.15	0.05	0.05	no water	no defined channel- dry	0.05
Max depth (m)	0.15	0.3	0.1	0.1	no water	no defined channel- dry	0.1
Canopy Cover	95% closed	80% open	85% closed	80% closed	100% open	90% open	85% open
Fish observations	none	none	none	none	none	none	none
Migratory Obstructions	dry parts of the channel	debris in water	dry in some areas	low water levels	dry channel	dry channel	dry in some areas

**Table C-5: Watercourse Characteristics**

<b>Watercourse Inventory Point</b>	<b>Description of Watercourse</b>
<b>Reach 1</b>	
<b>Inventory Point 1-1</b>	<p>Inventory Point 1-1 was situated within a low lying thick wooded area. Riparian vegetation included deciduous trees in the canopy, and saplings and dense herbaceous vegetation in the understory. The vegetation community was comprised of Raspberry, Riverbank Grape, Wild Strawberry, White Ash and Hawthorn. Canopy closure was approximately 95%.</p> <p>The creek's substrate at Inventory Point 1-1 is comprised of cobble, gravel and silt and has a narrow and shallow channel with very little water (see <b>Table C-4</b>). Inventory Point 1-1 has little relief along this section of the creek and maintains a relatively direct alignment.</p>
<b>Inventory Point 1-2</b>	<p>Inventory Point 1-2 is located north of Inventory Point 1-1, along Reach 1. This Inventory Point is surrounded by Reed Canary grass, Riverbank Grape, Goldenrod, Milkweed, Red Osier Dogwood and Raspberry. The canopy was much more open at Inventory Point 1-2 compared to Inventory Point 1-1 (80% open).</p> <p>The creek's substrate was predominately comprised of silt, with a deeper incised channel than Inventory Point 1-1 (see <b>Table C-4</b>). Inventory Point 1-2 had little relief in this section of the creek and maintained a relatively direct alignment.</p>
<b>Inventory Point 1-3</b>	<p>Inventory Point 1-3 is upstream of 1-2, and exhibited different habitat characteristics than Inventory Points downstream. Inventory Point 1-3 has a riparian area comprised of Jewelweed, various grass species, Manitoba maple and Goldenrod. Its canopy is 85% closed.</p> <p>The creek at Inventory Point 1-3 had a substrate comprised of clay, silt and gravel and has a narrow, shallow channel with very little water on the date of investigation. Inventory Point 1-3 had little relief in this section of the creek and maintained a relatively direct alignment.</p>

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**Inventory Point 1-4**

Inventory Point 1-4 is located where a channel flowing east to west meets up with the main Reach 1 channel at the northwest portion of the Subject Property. Inventory Point 1-4 is similar to Inventory Point 1-3 and is surrounded by Goldenrod, Jewelweed, Bittersweet Nightshade, Willow sp., Poplar sp., Staghorn Sumac, Manitoba maple, Stinging Nettle and various grass species. The canopy cover at this Inventory Point is 80% closed.

The creek at Inventory Point 1-4 had a substrate comprised of silt, sand, clay, muck and detritus. The channel was narrow and shallow with little water on the date of investigation. Inventory Point 1-4 had little relief in this section of the creek and maintained a relatively direct alignment.

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**Inventory Point 1-5**

Inventory Point 1-5 is a dry channel at the northeast portion of the Subject Property. The canopy here is 100% open and the riparian vegetation is comprised of Goldenrod, various grass species Riverbank Grape and Wild Cucumber.

The creek at Inventory Point 1-5 had a substrate comprised of sand, clay, gravel and silt. The channel was deeply incised with no water on the date of investigation (see **Table C-4**). Inventory Point 1-5 had little relief in this section of the creek and maintained a relatively direct alignment.

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**Reach 2**

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**Inventory Point 2-1**

Inventory Point 2-1 is located on the east side of the study area, running north to south. At this point along Farewell Creek the channel was dry and undefined. The canopy cover is approximately 90% open. The riparian zone is comprised of Dogwood, jewelweed and various grass species.

The creek at Inventory Point 2-1 had a substrate comprised of silt and detritus. The undefined channel was assessed to be dry on the date of investigation. Inventory Point 2-1 had little relief in this section of the creek and maintained a relatively direct alignment.

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***Inventory Point 2-1***

Inventory Point 2-2 was located further upstream from Inventory Point 2-1. Inventory Point 2-2 had a very narrow, almost dry channel, surrounded by Jewelweed and Reed Canary Grass. The canopy was approximately 85% open.

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**Table C-6: Terrestrial Wildlife Species Inventory**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Provincial Status<sup>1</sup></b>
<b>AMPHIBIANS</b>		
<i>Lithobates pipiens</i>	Northern Leopard Frog	S5
<b>BIRDS</b>		
<i>Ardea herodias</i>	Great Blue Heron	S5
<i>Cathartes aura</i>	Turkey Vulture	S5B
<i>Buteo jamaicensis</i>	Red-tailed Hawk	S5
<i>Charadrius vociferus</i>	Killdeer	S5B, S5N
<i>Larus delawarensis</i>	Ring-billed Gull	S5B,S4N
<i>Zenaida macroura</i>	Mourning Dove	S5
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo	S4B
<i>Picoides villosus</i>	Hairy Woodpecker	S5
<i>Colaptes auratus</i>	Northern Flicker	S4B
<i>Empidonax traillii</i>	Willow Flycatcher	S5B
<i>Empidonax minimus</i>	Least Flycatcher	S4B
<i>Sayornis phoebe</i>	Eastern Phoebe	S5B
<i>Myiarchus crinitus</i>	Great Crested Flycatcher	S4B
<i>Tyrannus tyrannus</i>	Eastern Kingbird	S4B
<i>Vireo gilvus</i>	Warbling Vireo	S5B
<i>Vireo olivaceus</i>	Red-eyed Vireo	S5B
<i>Cyanocitta cristata</i>	Blue Jay	S5
<i>Corvus brachyrhynchos</i>	American Crow	S5B
<i>Eremophila alpestris</i>	Horned Lark	S5B
<i>Tachycineta bicolor</i>	Tree Swallow	S4B
<i>Hirundo rustica</i>	Barn Swallow	S4B
<i>Poecile atricapillus</i>	Black-capped Chickadee	S5
<i>Sitta canadensis</i>	Red-breasted Nuthatch	S5
<i>Troglodytes aedon</i>	House Wren	S5B
<i>Catharus guttatus</i>	Hermit Thrush	S5B
<i>Hylocichla mustelina</i>	Wood Thrush	S4B
<i>Turdus migratorius</i>	American Robin	S5B
<i>Dumetella carolinensis</i>	Gray Catbird	S4B
<i>Toxostoma rufum</i>	Brown Thrasher	S4B
<i>Sturnus vulgaris</i>	European Starling	SNA
<i>Bombycilla cedrorum</i>	Cedar Waxwing	S5B
<i>Seiurus aurocapilla</i>	Ovenbird	S4B

<b>Scientific Name</b>	<b>Common Name</b>	<b>Provincial Status<sup>1</sup></b>
<i>Mniotilta varia</i>	Black-and-white Warbler	S5B
<i>Geothlypis philadelphia</i>	Mourning Warbler	S4B
<i>Geothlypis trichas</i>	Common Yellowthroat	S5B
<i>Setophaga ruticilla</i>	American Redstart	S5B
<i>Setophaga petechia</i>	Yellow Warbler	S5B
<i>Setophaga coronata</i>	Yellow-rumped Warbler	S5B
<i>Spizella passerina</i>	Chipping Sparrow	S5B
<i>Spizella pusilla</i>	Field Sparrow	S4B
<i>Pooecetes gramineus</i>	Vesper Sparrow	S4B
<i>Passerculus sandwichensis</i>	Savannah Sparrow	S4B
<i>Melospiza melodia</i>	Song Sparrow	S5B
<i>Cardinalis cardinalis</i>	Northern Cardinal	S5
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak	S4B
<i>Passerina cyanea</i>	Indigo Bunting	S4B
<i>Agelaius phoeniceus</i>	Red-winged Blackbird	S5
<i>Quiscalus quiscula</i>	Common Grackle	S5B
<i>Molothrus ater</i>	Brown-headed Cowbird	S4B
<i>Icterus galbula</i>	Baltimore Oriole	S4B
<i>Carpodacus mexicanus</i>	House Finch	SNA
<i>Carduelis tristis</i>	American Goldfinch	S5B
<b>MAMMALS</b>		
<i>Canis latrans</i>	Coyote	S5
<i>Procyon lotor</i>	Raccoon	S5
<i>Mephitis mephitis</i>	Striped Skunk	S5
<i>Odocoileus virginianus</i>	White-tailed Deer	S5
<b>SUMMARY</b>		
Total Amphibians:	1	
Total Reptiles:	0	
Total Birds:	52	
Total Breeding Birds:	47	
Total Mammals:	4	
<b>SIGNIFICANT SPECIES</b>		
Global:	0	
National:	1	
Provincial:	1	
Regional:	0	
Local:	0	

<sup>1</sup>NHIC (2010a): S5 = secure; S4 = apparently secure; SNA = conservation ranking not applicable; S#B = Breeding Status Rank; S#N = Non Breeding Status Rank.