

KENNEDY – HIGHPOINT (OLD ORANGEVILLE AIRPORT AREA)

Region of Peel	NAI Area # 9261	Credit Valley Conservation Authority
Town of Caledon	Size: 190 hectares	Watershed: Credit River
Con 2 EHS, Lots 21-25	Ownership: 80% public, 20% private (Credit Valley Conservation)	Subwatershed: Caledon Creek; Credit River: Orangeville to Melville

General Summary

This large natural is predominantly wetland, although some forest communities are also present, at least one of which is mature. The area is linear in shape and fragmented, although the fragmentation is on a scale that has left large habitat patches intact. Parts of this area are highly disturbed. However, in spite of the disturbance and fragmentation, the area is of exceptional quality.

A high diversity of vegetation communities and a large natural area have contributed to high plant, bird, butterfly and odonate species diversity. Several Species At Risk, plus provincially and regionally rare species are supported in this area. The site also strongly supports several guilds of birds that are of conservation concern. The extensive wetlands at this site support water infiltration and purification as well as providing flood water protection and a variety of other ecological good and services.

NAI ELC surveyors, botanists and ornithologists inventoried vegetation communities, plants and breeding birds and made incidental observations of other fauna (Table 1), covering 54% of the natural area (determined by access permission). With respect to the NAI core inventories (vegetation communities, plants, breeding birds), this area is considered data-complete. Fish were inventoried both within the natural area and from downstream sampling stations. As there are no barriers between the downstream stations and this natural area, the fish data from the off-site stations was extrapolated upstream and combined with the fish inventory data from on-site.

Table 1: NAI Field Visits

Visit Date	Inventory Type		
14 Aug. 2000	Fish		
10 June 2009	Fauna		
11 June 2009	Fauna		
04 July 2009	Fauna		
05 July 2009	Fauna		
20 Aug. 2009	ELC		
21 Aug. 2009	ELC		
24 Aug. 2009	ELC		
25 Aug. 2009	ELC		
26 Aug. 2009	ELC		
27 Aug. 2009	ELC		
		28 Aug. 2009	ELC
		31 Aug. 2009	ELC
		02 Sept. 2009	ELC
		03 Sept. 2009	ELC
		04 Sept. 2009	ELC
		09 Sept. 2009	ELC
		10 Sept. 2009	ELC
		17 June 2010	Flora
		22 July 2010	Flora
		29 July 2010	Flora
		11 Sept. 2010	Flora

Natural Feature Classifications and Planning Areas

This natural area is part of:
 ESA – partially within Rosehill Swamp ESA
 PSW - Speersville Wetland Complex
 Greenbelt Plan – Natural Heritage System

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Physical Features

Most of this natural area lies in the Guelph Drumlin Field physiographic region, although the north end of the area is in the Horseshoe Moraines region. The Guelph Drumlin Field physiographic region is characterized by low streamlined drumlins, separated by meltwater channels that give a rolling topography. The Horseshoe Moraines physiographic region is characterized by north-south trending ridges of sand and silt glacial deposits. Soils here tend to be sandy loams and support high rates of recharge to groundwater aquifers.

Water from most of the area drains into the Credit River via several small tributary streams. These streams join the Credit River just north of the junction of Highpoint Sdrd. with Hurontario St. The south part of the area drains into a headwaters tributary of Caledon Creek.

The topography of this area is rolling over the north and south portions but the central part forms an almost flat, shallow depression. The relative flatness of this central part of the area (in comparison with other parts of the region around Orangeville) once made this area attractive as a local airport site.

However, the depression area receives groundwater flow from the surrounding higher, rolling terrain. The ESA report for this area (Credit River Watershed Environmentally Significant Areas, 1979) states that the poor drainage in this central part of the area is "...likely caused by a perched water table...", in spite of generally well-draining soils over the area as a whole. In the vicinity of the old airport, a network of interconnected, large drainage ditches is visible, although the surrounding communities are still very wet. On the agricultural lands adjacent to the mid-west part of the natural area, there are additional dug drains which have altered the hydrology of the area (Aquafor Beech Ltd., 1997).

Human History

This natural area is in the vicinity of the historical hamlet of Rosehill, which was centered on the intersection of Kennedy Rd. and Highpoint Sdrd.

Portions of this area were part of the former Orangeville Airport property. Agricultural land was acquired for a small airport that operated from 1958 until at least 1975. By 1974 the airport had two landing strips, a helicopter pad, three hangars, three buildings and a parking lot. A stream on this property was rerouted and a network of drainage ditches was dug to drain the developed area (MacKinnon, 1976; Aquafor Beech Ltd., 1997). At some point after 1975, the airport was abandoned and the buildings were removed. Recolonization of the airport lands by natural vegetation is now occurring.

Other historic land uses within this natural area include livestock grazing.

Credit Valley Conservation owns several properties that make up part of this natural area. The CVC lands are undeveloped and remain in their natural state. One of the larger CVC properties is locally known as Skywood Park. The natural area extends to Kennedy Rd. in the southwest and to Beech Grove Sdrd. in the south. Part of the north end of the natural area is bordered by Heart Lake Rd. Surrounding land uses are mostly agricultural, regenerating lands (including the airport site), two small residential estate subdivisions and rural residences.

Vegetation Communities

The general community types present are coniferous forest (3%), deciduous forest (10%), mixed forest (7%), marsh (12%), coniferous swamp (10%), deciduous swamp (10%), mixed swamp (25%), thicket swamp (12%), open aquatic (1%), cultural meadow (3%), cultural thicket (3%), cultural savannah (<1%), cultural woodland (3%) and plantation (<1%).

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A total of 55 vegetation communities of 32 different types were mapped for this natural area (Table 2). One community, the Red Maple – Conifer Mixed Organic Swamp (SWM5-1, S-rank S3S4), is provincially rare. The Reed Canary Grass Organic Shallow Marsh (MASO1-4) community forms a complex with a regionally rare community, a Willow Organic Thicket Swamp (SWT3-2). One of the Balsam Fir - Hardwood Mineral Mixed Swamp (SWMM5-1) communities has an inclusion of a regionally rare community, White Cedar – Conifer Organic Coniferous Swamp (SWC3-2).

Table 2: ELC Vegetation Communities

Map reference *	Vegetation type	Size in hectares	% of natural area
FOC4-1	Fresh-Moist White Cedar Coniferous Forest	0.39	0.20
FOD4-2	Dry-Fresh White Ash Deciduous Forest	1.02	0.54
FOD5-1	Dry-Fresh Sugar Maple Deciduous Forest (3 communities)	10.94	5.76
FOD5-2	Dry-Fresh Sugar Maple - Beech Deciduous Forest	1.29	0.68
FOD5-9	Dry-Fresh Sugar Maple - Red Maple Deciduous Forest	1.10	0.58
FOD6-3	Fresh-Moist Sugar Maple - Yellow Birch Deciduous Forest	1.20	0.63
FOD8-1	Fresh-Moist Poplar Deciduous Forest (2 communities)	2.28	1.20
FOM7-2	Fresh-Moist White Cedar - Hardwood Mixed Forest (2 communities)	1.63	0.86
FOMM10-1	Fresh-Moist Balsam Fir - Hardwood Mixed Forest (2 communities)	2.63	1.38
MAM2-2	Reed-canary Grass Mineral Meadow Marsh (2 communities)	2.53	1.33
MAM3-5	Narrow-leaved Sedge Organic Meadow Marsh	2.67	1.40
MAM3-9	Forb Organic Meadow Marsh	0.91	0.48
MAS2-1A	Broad-leaved Cattail Mineral Shallow Marsh	1.49	0.78
MAS3-1	Cattail Organic Shallow Marsh	0.33	0.17
MASO1-4	Reed Canary Grass Organic Shallow Marsh	0.92	0.48
SWC4-2	Tamarack Organic Coniferous Swamp	0.59	0.31
SWD4-3	Paper Birch - Poplar Mineral Deciduous Swamp (2 communities)	2.96	1.56
SWD6-1	Red Maple Organic Deciduous Swamp	0.74	0.39
SWDM4-5	Poplar Mineral Deciduous Swamp (2 communities)	6.94	3.65
SWDO3-3	Trembling Aspen Organic Deciduous Swamp	2.14	1.13
SWDO3-4	White Elm Organic Deciduous Swamp	0.57	0.30
SWM04-1	Balsam Fir - Hardwood Organic Mixed Swamp (4 communities)	10.59	5.58
SWM1-1	White Cedar - Hardwood Mineral Mixed Swamp (2 communities)	3.64	1.92
SWM3-1	Birch - Conifer Mineral Mixed Swamp	4.37	2.30
SWM4-1	White Cedar - Hardwood Organic Mixed Swamp (6 communities)	10.41	5.48
SWM5-1	Red Maple - Conifer Mixed Organic Swamp PROVINCIAL RARE S-rank S3S4	0.59	0.31
SWM6-2	Poplar - Conifer Organic Mixed Swamp (2 communities)	1.26	0.66
SWMM4-2	Black Ash - Conifer Mineral Mixed Swamp	1.75	0.92
SWMM5-1	Balsam Fir - Hardwood Mineral Mixed Swamp (2 communities)	4.09	2.15

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SWMO3-3	White Birch - Conifer Organic Mixed Swamp (2 communities)	8.82	4.64
SWT2-2	Willow Mineral Thicket Swamp (2 communities)	6.44	3.39
SWT3-5	Red-osier Organic Thicket Swamp (3 communities)	5.33	2.81
	TOTAL AREA INVENTORIED	102.56	

* Note: The map reference code refers to the vegetation type shown on mapping for this area and also to the Appendix list of species typically encountered in this vegetation type.

Species Presence

Vascular Plants

Plant biodiversity is high in this natural area. A total of 403 vascular plant species are recorded for this area, of which 331 (82%) are native. One of these species, Butternut (*Juglans cinerea*) is Endangered nationally and provincially, as well as being provincially rare (S-rank S3?; Table 3). Great St. John's-wort (*Hypericum ascyron*; S-rank S3?), is provincially rare. Forty-seven of the plant species at this site are regionally rare (Table 4).

Hooded Ladies-tresses (*Spiranthes romanzoffiana*), found here, is a new species for the Region of Peel (Cecile, 2010).

Breeding Birds

Bird biodiversity is high at this site. A total of 91 bird species were recorded for this area, of which 90 (99%) are native. One of these is believed to be a migrant whereas the others were present during the breeding season and displayed some level (possible, probable, confirmed) of breeding evidence. Four of these are Species At Risk (Table 3). Canada Warbler (*Wilsonia Canadensis*) is Threatened nationally and is designated Special Concern provincially, Bobolink (*Dolichonyx oryzivorus*) is Threatened nationally and provincially, Barn Swallow (*Hirundo rustica*) is Threatened nationally and Eastern Meadowlark (*Sturnella magna*) is Threatened nationally. Two Common Ravens (*Corvus corax*) were reported here, in suitable breeding habitat. Previous to NAI work, Common Ravens were not known to exist in the Credit River watershed, however they have since been found at several locations, supporting reports that the species is expanding its range southwards.

This natural area supports four species of colonial nesting birds, namely Great Blue Heron (*Ardea herodias*), Green Heron (*Butorides virescens*), Cliff Swallow (*Petrochelidon pyrrhonota*) and Barn Swallow. Eight Cliff Swallow nests were observed. The area also supports three species of waterfowl, namely Wood Duck (*Aix sponsa*), American Black Duck (*Anas rubripes*) and Mallard (*Anas platyrhynchos*). Extensive interior forest is present in this natural area, which supports 11 species of area-sensitive forest interior birds, namely Hairy Woodpecker (*Picoides villosus*), Pileated Woodpecker (*Dryocopus pileatus*), Red-breasted Nuthatch (*Sitta canadensis*), Brown Creeper (*Certhia americana*), Winter Wren (*Troglodytes troglodytes*), Veery (*Catharus fuscescens*), Black-throated Blue Warbler (*Dendroica caerulescens*), Black-throated Green Warbler (*Dendroica virens*), Black-and-white Warbler (*Mniotilta varia*), Ovenbird (*Seiurus aurocapilla*) and Scarlet Tanager (*Piranga olivacea*). Successional and open habitat support 11 species of grassland birds, namely Bobolink, Eastern Meadowlark, Northern Harrier (*Circus cyaneus*), Savannah Sparrow (*Passerculus sandwichensis*), American Kestrel (*Falco sparverius*), Clay-coloured Sparrow (*Spizella pallida*), Eastern Kingbird (*Tyrannus tyrannus*), Field Sparrow (*Spizella pusilla*), Horned Lark (*Eremophila alpestris*), Vesper Sparrow (*Pooecetes gramineus*) and Willow Flycatcher (*Empidonax traillii*). Four of these grassland birds (Bobolink, Eastern Meadowlark, Northern Harrier, Savannah Sparrow) are area-sensitive. Three raptors species, Sharp-shinned Hawk (*Accipiter striatus*), Cooper's Hawk (*Accipiter cooperii*), and Broad-winged Hawk (*Buteo platypterus*), are also present at this site. The extensive wetlands in this natural area support three wetland-nesting birds, American Bittern (*Botaurus lentiginosus*), Virginia Rail (*Rallus limicola*), and Wilson's Snipe (*Gallinago delicata*).

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Fish

Eight fish species were detected in this area. All are native. Three additional species are known from older (1982) CVC inventories. Finescale Dace (*Phoxinus neogaeus*) and Pearl Dace (*Margariscus margarita*) occur at this site, one of only a few locations where these species have been detected in the Credit River watershed. The northwest half of this natural area, in the main Credit Subwatershed, supports coldwater fish communities. The southeast half of this natural area, in the Caledon Creek Subwatershed, supports temperature-tolerant fish communities.

Butterflies, Skippers and Moths

Butterfly/skipper biodiversity is high at this site. A total of 24 butterflies/skippers and moths were recorded incidentally for this area, of which 22 (92%) are native. One of these, Monarch (*Danaus plexippus*), is designated Special Concern both nationally and provincially (Table 3). The Monarch is also provincially rare (S-rank S2N, S4B). This is one of only two sites visited during NAI fieldwork (in 2008 and 2009) where the Silver-bordered Fritillary (*Boloria selene*) was observed.

Dragonflies and Damselflies

Dragonfly/damselfly biodiversity is high in this area. A total of 28 dragonflies/damselflies were recorded incidentally for this area, all of which are native. Three provincially rare species were observed, Lilypad Clubtail (*Arigomphus furcifer*; S-rank S3), Amber-winged Spreadwing (*Lestes eurinus*; S-rank S3) and a colony of Painted Skimmers (*Libellula semifasciata*; S-rank S2). This is the only site where the Painted Skimmer was found during NAI fieldwork in 2008 and 2009. In addition, Red-waisted Whiteface (*Leucorrhinia proxima*) was found here, one of only four locations where it was found during NAI fieldwork in 2008 and 2009. Taiga Bluet (*Coenagrion resolutum*) was found here, one of only two sites that it was found at during NAI field work in 2008 and 2009.

Lilypad Clubtail, Amber-winged Spreadwing, Painted Skimmer, Red-waisted Whiteface and Taiga Bluet are all regionally rare in adjacent Halton Region (Dwyer, 2006).

Herpetofauna

A total of ten herpetofaunal species were recorded as incidental observations at this site. All are native. One of these, Eastern Snapping Turtle (*Chelydra serpentina*), is designated of Special Concern both nationally and provincially and is also provincially rare (Table 3). An Eastern Snapping Turtle was found dead on Heart Lake Road. A Species At Risk frog, Western Chorus Frog (*Pseudacris triseriata*), designated Threatened nationally, was also recorded at this site. In addition, Mink Frog (*Rana septentrionalis*), which is uncommon in the Credit watershed, being a species with more northern affinities, was observed here. The remaining herpetofaunal species present here consist of six additional frog/toad species and an additional turtle species.

Mammals

Eleven species of mammals were detected as incidental observations at this site. All are native and common.

Table 3: Designated Species At Risk

Scientific name	Common name	COSEWIC	COSSARO	S rank	G rank
VASCULAR PLANTS					
<i>Juglans cinerea</i>	Butternut	END	END	S3?	G4
BIRDS					
<i>Hirundo rustica</i>	Barn Swallow	THR		S5B	G5
<i>Dolichonyx oryzivorus</i>	Bobolink	THR	THR	S4B	G5
<i>Wilsonia canadensis</i>	Canada Warbler	THR	SC	S4B	G5
<i>Sturnella magna</i>	Eastern Meadowlark	THR		S5B	G5

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BUTTERFLIES					
<i>Danaus plexippus</i>	Monarch	SC	SC	S2N,S4B	G5
Herpetofauna					
<i>Chelydra serpentina</i>	Eastern Snapping Turtle	SC	SC	S3	G5T5
<i>Pseudacris triseriata</i>	Western Chorus Frog	THR		S4	G5

Table 4: Regionally Rare Vascular Plant Species (Kaiser, 2001)

Scientific name	Common name	S rank	G rank
VASCULAR PLANTS			
<i>Carex crawfordii</i>	Crawford Sedge	S5	G5
<i>Carex cryptolepis</i>	Northeastern Sedge	S4	G4
<i>Carex echinata</i>	Little Prickly Sedge	S5	G5
<i>Carex lasiocarpa</i>	Slender Sedge	S5	G5
<i>Carex pellita</i>	Woolly Sedge	S5	G5
<i>Carex prairea</i>	Prairie Sedge	S5	G5?
<i>Chrysosplenium americanum</i>	American Golden-saxifrage	S5	G5
<i>Cirsium muticum</i>	Swamp Thistle	S5	G5
<i>Cypripedium acaule</i>	Pink Lady's-slipper	S5	G5
<i>Cypripedium reginae</i>	Showy Lady's-slipper	S4	G4
<i>Dalibarda repens</i>	Robin Runaway	S4S5	G5
<i>Epilobium coloratum</i>	Purple-leaf Willow-herb	S5	G5
<i>Equisetum palustre</i>	Marsh Horsetail	S5	G5
<i>Equisetum pratense</i>	Meadow Horsetail	S5	G5
<i>Equisetum sylvaticum</i>	Woodland Horsetail	S5	G5
<i>Galium boreale</i>	Northern Bedstraw	S5	G5
<i>Galium labradoricum</i>	Northern Bog Bedstraw	S5	G5
<i>Gaultheria hispidula</i>	Creeping Snowberry	S5	G5
<i>Glyceria borealis</i>	Small Floating Manna-grass	S5	G5
<i>Glyceria canadensis</i>	Rattlesnake Manna-grass	S4S5	G5
<i>Glyceria septentrionalis</i>	Floating Manna-grass	S4	G5
<i>Hypericum ascyron</i>	Great St. John's-wort	S3?	G4
<i>Lactuca biennis</i>	Tall Blue Lettuce	S5	G5
<i>Ledum groenlandicum</i>	Common Labrador Tea	S5	G5
<i>Lonicera hirsuta</i>	Hairy Honeysuckle	S5	G4G5
<i>Lonicera oblongifolia</i>	Swamp Fly-honeysuckle	S4S5	G4
<i>Malaxis monophyllos ssp. brachypoda</i>	White Adder's-mouth	S4	G4Q
<i>Menyanthes trifoliata</i>	Bog Buckbean	S5	G5
<i>Muhlenbergia glomerata</i>	Marsh Muhly	S5	G5
<i>Oxalis acetosella ssp. montana</i>	Mountain Woodsorrel	S5	G5
<i>Packera aurea</i>	Golden Ragwort	S5	G5
<i>Phegopteris connectilis</i>	Northern Beech Fern	S5	G5
<i>Phlox divaricata</i>	Wild Blue Phlox	S4	G5
<i>Picea mariana</i>	Black Spruce	S5	G5
<i>Potentilla fruticosa</i>	Shrubby Cinquefoil	S5	G5T5
<i>Ribes glandulosum</i>	Skunk Currant	S5	G5
<i>Ribes hudsonianum</i>	Northern Black Currant	S5	G5
<i>Salix serissima</i>	Autumn Willow	S4	G4

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<i>Solidago uliginosa</i>	Bog Goldenrod	S5	G4G5
<i>Spiranthes cernua</i>	Nodding Ladies'-tresses	S5	G5
<i>Thelypteris noveboracensis</i>	New York Fern	S4S5	G5
<i>Utricularia minor</i>	Lesser Bladderwort	S5	G5
<i>Vaccinium myrtilloides</i>	Velvetleaf Blueberry	S5	G5
<i>Vaccinium oxycoccos</i>	Small Cranberry	S5	G5
<i>Veronica scutellata</i>	Marsh Speedwell	S5	G5
<i>Viola macloskeyi ssp. pallens</i>	Smooth White Violet	S5	G5T5

Site Condition and Disturbances

This is a large site and its size helps buffer its wetland habitat from adjacent land uses. Some younger forests are regenerating from cultivation and livestock grazing and a Sugar Maple forest has largely regenerated from selective logging 15-30 years ago. Disturbances to the natural area tend to be associated with the newer housing developments and include litter, understory clearing and exotic species.

Invasive species have a minimal presence in this area. Notable invasive species include Common Buckthorn (*Rhamnus cathartica*), Glossy Buckthorn (*Frangula alnus*) and Colt's Foot (*Tussilago farfara*).

Beech bark disease is affecting American Beech (*Fagus grandifolia*) trees.

Recreational use is light and mostly confined to small trails. Localized evidence of camping and a hunting blind were noted.

Beavers have used this area and their old channels persist. A landowner reported beaver flooding in the south-east section of this natural area which later subsided after the beaver's dam was removed circa 2005 (landowner, pers. comm., 2009). A number of snags are present in this previously flooded section.

Ecological Features and Functions

Most of this natural area is included in the Rosehill Swamp ESA and part of it is included in the provincially significant Speersville Wetland Complex.

With forest communities greater than 4 ha, wetlands over 0.5 ha in size, and adjacent supporting grasslands totalling over 10 ha, this natural area has the potential to support and sustain biodiversity, healthy ecosystem functions and to provide long-term resilience for the natural system. The riparian areas provide a transitional zone between terrestrial and aquatic habitats, helping to maintain the water quality of the stream, and providing a movement corridor for plants and wildlife.

By containing a very high number of habitat types, this natural area has the potential for high biodiversity function, particularly for species that require more than one habitat type for their life needs. This natural area contains a provincially rare vegetation community, a regionally rare complex, and a regionally rare inclusion and thus has the potential to support additional biodiversity above and beyond that found in common community types.

Three parts of this natural area extend to roads where a linkage exists across those roads to other natural areas. All of these connections afford wildlife movement through natural habitat, across at least several concession blocks, and more often along vegetated watercourses to major natural corridors. Across Horseshoe Hill Rd. there is linkage with a large natural area that contains a small tributary and associated wetlands, draining into the Credit River. Across Beech Grove Sdrd. there is linkage with a Caledon Creek tributary stream and its associated wetlands. To the northwest, there is

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linkage with headwaters tributaries of the Humber River, in the area of Tamarack. The relatively close proximity of other areas of natural habitat creates above-average potential for wildlife movement between natural areas, species dispersal and recovery from disturbance, creating additional resilience for the ecosystem.

This natural area supports eight Species At Risk (one plant species, four bird species, one butterfly species, one frog species, one turtle species). The area also supports seven provincially rare species (two plant species, one butterfly species, three dragonfly/damselfly species, one turtle species) and 47 regionally rare plant species.

Interior forest habitat exists in this natural area. Eleven species of area-sensitive forest interior birds breed in this area.

This area and adjacent regenerating old fields support the breeding of 11 species of grassland birds. Four of these grassland birds are area-sensitive.

Four species of colonial-nesting birds, three waterfowl species, three wetland-breeding bird species and three raptor species breed in this area.

The extensive wetlands of this area support amphibian breeding. Two species of turtles may breed in this area.

Based on the above features, this area should be evaluated to determine if significant wildlife habitat is present in accordance with the Provincial Policy Statement, Region of Peel Official Plan, and area municipal Official Plan.

A section of the wetland adjacent to Kennedy Rd is fen-like, with a Cotton-Grass species (*Eriophorum* sp.) and several uncommon or provincially rare species of dragonflies and butterflies. It is expected to support regionally rare plant species due to its unique habitat (due to a lack of access permission for this community, it was only observed from the road).

Opportunities

In view of the exceptional quality of this natural area, and its partial ownership by Credit Valley Conservation, additional acquisitions (by purchase, donation or conservation easement) of natural area properties and adjacent successional lands would help to ensure the continued health and quality of this natural area. This would also most easily facilitate restoration of disturbed communities.

Public education messaging about the ecological hazards of using invasive species in gardens and landscaping near natural areas and also about the issues of underbrush clearing (and the value of structural complexity in communities) may be valuable in checking the spread of invasives into this natural area and retaining understory and ground layers in communities.

This natural area has been fragmented by both past and current land uses. This fragmentation makes it important to maintain or enhance the remaining connections between the different parts of this natural area. Further fragmentation should be discouraged and reversal of fragmentation by restoration, where possible, is encouraged.

The distribution and extent of invasive species could be mapped and monitored at this site. Although disturbance from invasive species is currently only light and localized, the early stages of their introduction to a natural area is the most practical time to eliminate them. Glossy Buckthorn should be removed as its numbers are low and it is restricted to an area behind the residential subdivision on Kennedy Rd.

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This natural area has three mature forest communities and they could be checked for old-growth forest characteristics.

Some large old fields that are regenerating to natural communities could be maintained as grasslands or thicket by periodic (every 3-5 years) mowing to prevent succession to treed communities and to maintain habitat for grassland birds.

An Eastern Snapping Turtle was found dead on the road during inventory work. It is a Species at Risk. Most turtles that cross roads are nesting females and their loss has a sustained impact on the overall population (Ontario Road Ecology Group, 2010; Kawartha Turtle Trauma Centre, 2011). Wildlife crossing road signage or other mitigation measures could be considered.

Given the predominantly wet nature of this natural area, with many seepage areas, and expanses of adjacent open areas, targeted inventories for dragonflies/damselflies may be productive.

Literature Cited

Aquafor Beech Ltd. et al. 1997. **Technical Document. Environmental Planning for the Credit River Headwaters Subwatershed No. 19.** Prepared for Credit Valley Conservation.

Cecile, C. **Botanical Inventories For Natural Areas Inventory Project 2010-Credit Valley Conservation.** Prepared for Credit Valley Conservation.

Kaiser, J. 2001. **The Vascular Plant Flora of the Region of Peel and the Credit River Watershed.** Prepared for: Credit Valley Conservation, the Regional Municipality of Peel, Toronto and Region Conservation Authority.

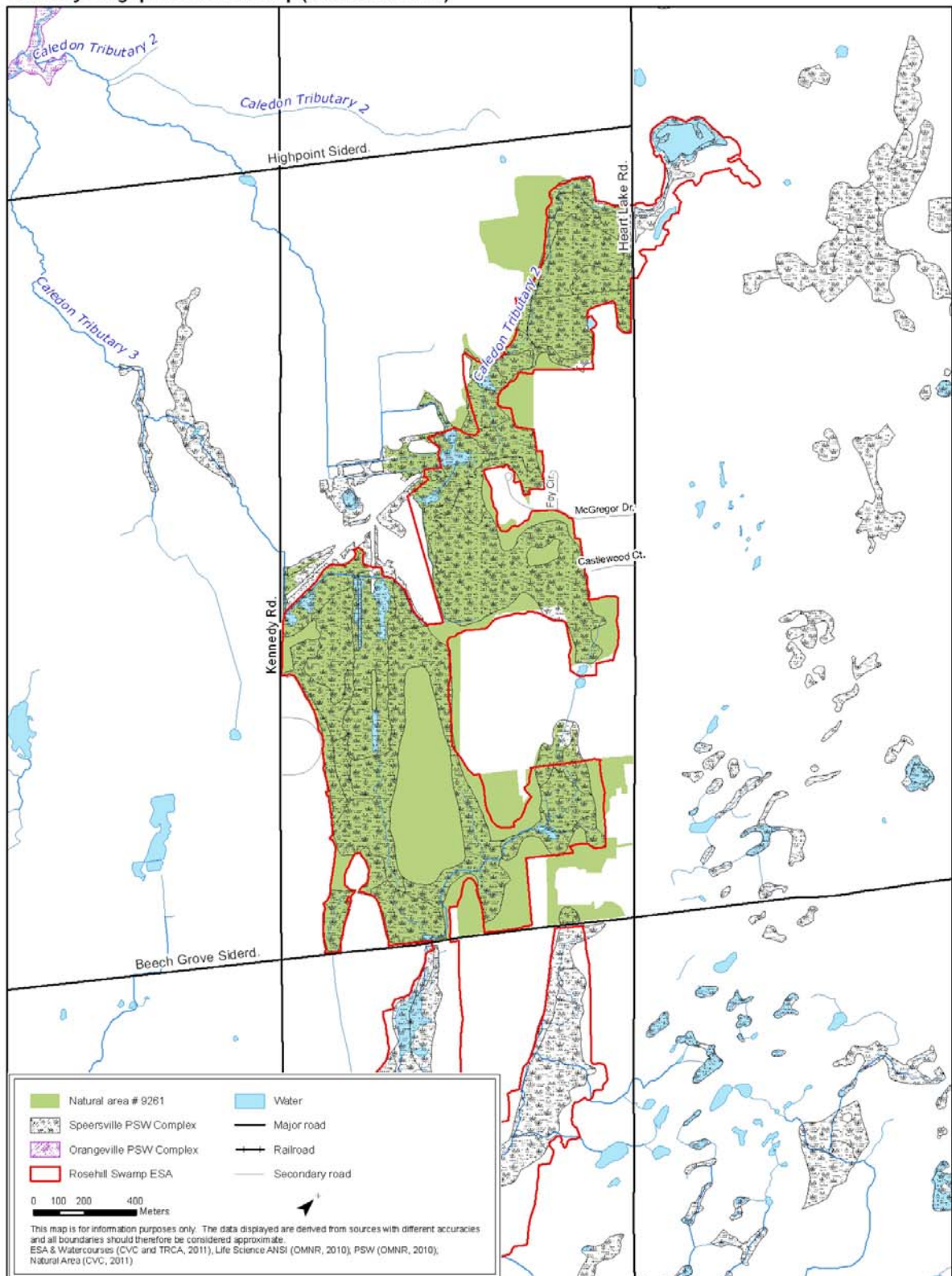
Kawartha Turtle Trauma Centre. 2011. **Turtle 101.** Available at <http://www.kawarthaturtle.org/> Last Accessed 15 April, 2011.

MacKinnon, B. and J.J.A. Zuber. 1976. **Court of Appeal Decision. Re Orangeville Airport Ltd. and Town of Caledon et al.** Ontario Reports 11.O.R. (2d). pp. 546-550.

Ontario Road Ecology Group, Toronto Zoo. 2010. **A Guide to Road Ecology in Ontario.** Self-published, Scarborough, ON. ISBN: 978-1-89541-50-6.

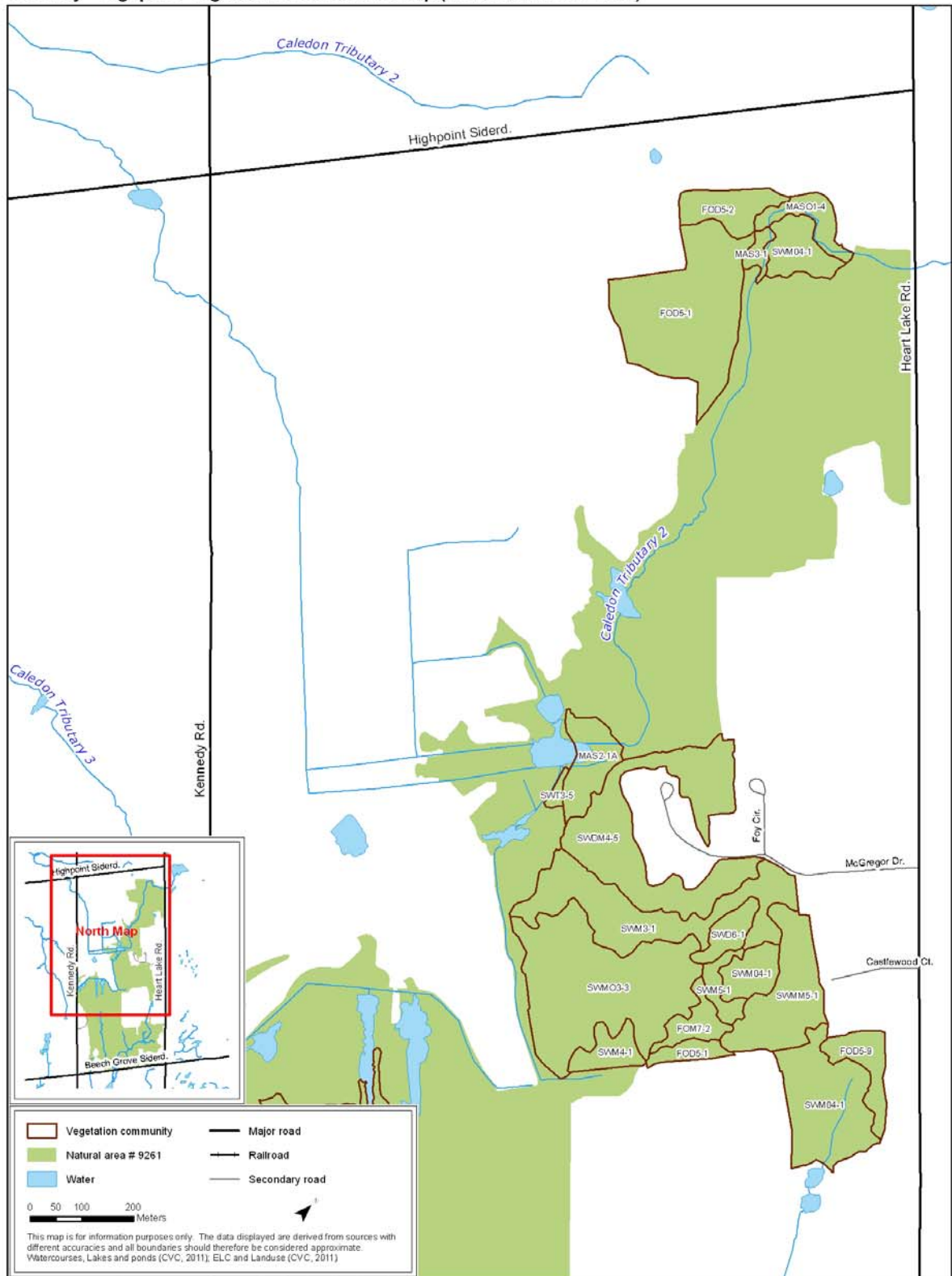
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Kennedy - Highpoint Context Map (NAI Area # 9261)



KENNEDY – HIGHPOINT (OLD ORANGEVILLE AIRPORT AREA)

Kennedy - Highpoint Vegetation Communities Map (North NAI Area # 9261)



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Kennedy - Highpoint Vegetation Communities Map (South NAI Area # 9261)

