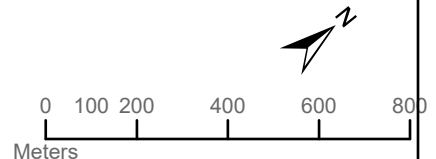


Natural Areas System

2024 NATURAL AREAS UPDATE

SITE CRR6

- █ NATURAL AREAS
- █ VEGETATION COMMUNITIES
- █ SPECIAL MANAGEMENT AREAS
- █ LINKAGES



CRR6

CLASSIFICATION Significant Natural Area	Park Name Erindale and Shalebank Hollow Parks	PLANNING DISTRICT Credit River	AREA (Ha) 141.48
CONSERVATION AUTHORITY CVC	SUBWATERSHED Sawmill Creek and Mullet Creek	OWNERSHIP Private/City	SURROUNDING LAND USE Residential

GENERAL SUMMARY

Along the Credit River from Dundas Street to Burnhamthorpe Road. Several natural areas are connected to this site via Mullet Creek. CRR6 is linked to a number of natural areas along the Credit River, including CRR7 and CRR10. Designated as a regional life science Area of Natural and Scientific Interest (ANSI) and Environmentally Significant Area (ESA).

PHYSICAL DESCRIPTION

Topography varies from undulating floodplain and tableland to steep valley walls. Valley walls range in slope from 25-45 percent (occasionally reaching 75 percent) with heights between 9-24 m. Primary soil type is well drained Fox sandy loam. Other soil types are Brady sandy loam and Berrien sandy loam. All of these soils developed over glacio-lacustrine sand plain sediments deposited by Lake Iroquois. Along various sections of the valley walls, grey shales of the Georgian Bay Formation are exposed. A tributary of Mullet Creek joins the Credit River within this site. Seepage areas are present along the valley slopes representing minor discharge of groundwater from the soils.

CONDITION

This site is currently in good condition as FQI and mean coefficient are high, but disturbances are extensive. Disturbances include windthrow, encroachment, extensive paved paths along the floodplain, extensive mountain bike trails, soil compaction, excessive noise from major roads and airplanes, erosion of valley walls and valley slopes where bare soil is present (portions of the Credit River have been engineered with gabion baskets and large armour stone), evidence of Emerald Ash Borer and decline of ash trees, and

widespread invasive species. Highly invasive plant species (as regarded by Ontario Invasive Plant Council) found on site include Garlic Mustard (*Alliaria petiolata*), Winged Euonymus (*Euonymus alatus*), Wild Parsnip (*Pastinaca sativa*), Wild Chervil (*Anthriscus sylvestris*), Purple Loosestrife, Japanese Barberry (*Berberis thunbergii*), Common Reed, Tatarian Honeysuckle, Periwinkle (*Vinca minor*), Goutweed (*Aegopodium podagraria*), Himalayan Balsam, Giant Hogweed (*Heracleum mantegazzianum*), European Buckthorn (*Rhamnus cathartica*), and Dog-strangling Vine (*Vincetoxicum rossicum*). Invasive plant species are prevalent and widespread through much of the site, particularly along trails and in disturbed areas. There is a potentially contaminated site (old landfill) in Erindale Park. 171 introduced plant species are present at this site (representing 35.33% of the total number of species present). Surrounding land use is residential and the UTM campus. Prior to 2001 this natural area included CRR10 and CRR11.

ECOLOGICAL LAND CLASSIFICATION

Number of Plant Communities

16 vegetation communities are present at this site (see accompanying figure); dry-fresh poplar deciduous forest type (FOD3-1); dry-fresh sugar maple deciduous forest ecosite (FOD5); dry-fresh sugar maple deciduous forest type (FOD5-1); dry-fresh sugar maple-oak deciduous forest type (FOD5-3); dry-fresh sugar maple-white ash deciduous forest type (FOD5-8); fresh-moist ash lowland deciduous forest type (FOD7-2); fresh-moist willow lowland deciduous forest type (FOD7-3); dry-fresh hardwood-hemlock mixed forest type (FOM3-1); dry-fresh sugar maple – hemlock mixed forest type (FOM3-2); Manitoba

maple mineral deciduous swamp type (SWD3-4); cattail mineral shallow marsh type (MAS2-1); mineral meadow marsh ecosite (MAM2); reed-canary grass mineral meadow marsh (MAM2-2); dry-moist old field meadow type (CUM1-1); open aquatic (OAO), and manicured areas.

Significant Plant Communities

There are no Significant Plant Communities in CRR6.

SPECIES RICHNESS

Flora

The native FQI is 79.35 and the native mean coefficient is 4.49, which are high values, respectively. The native FQI has increased and the native mean coefficient has decreased from previous values of 77.97 and 4.52, respectively.

There are 484 floral species documented for this site.

6 provincially significant flora species have been noted; very rare in Ontario, however a variety of this species is frequently planted.

79 locally significant flora species have been noted on site; 47 rare species (known from 1 to 3 locations), and 32 uncommon species (known from 4 to 10 locations) within the City.

158 Credit Valley Conservation flora Species of Conservation Concern (Tier 1-3).

Fauna

A total of 91 birds, 18 mammals, 7 amphibians, 7 reptiles, and 5 lepidoptera (including Monarch butterfly) are documented at this site. A vernal pool located in CRR6 provides productive breeding habitat for amphibians. Most bird species noted are habitat generalists characteristic of small woodlands and successional areas within the City such as Black-capped Chickadee, American Robin, Northern Cardinal, however, forest-dependent species also inhabit the woodlands in this natural area: Wood

Thrush, Eastern Wood-pewee, and Great Crested Flycatcher. Pileated Woodpecker, a species characteristic of forest-interior habitat was noted in the past and Red-tailed Hawk, which requires extensive area to forage was noted in surveys this year. Similarly, Carolina Wren, a species characteristic of southern parts of the province, was noted in 2018. White-tailed Deer range from this site north to CRR10 under the Burnhamthorpe Bridge. Credit River and Mullet Creek are classified as type 1 fisheries within this site.

There are 128 faunal species documented for this site.

11 provincially significant fauna species have been noted: 2 Endangered, 2 Threatened, 6 Special Concern, and 1 Not at Risk in Ontario.

94 Credit Valley Conservation fauna Species of Conservation Concern (Tier 1-3).

MANAGEMENT RECOMMENDATIONS

1. This portion of the Credit River Valley is highly significant and should be a priority for the development of a Conservation/Management Plan.
2. The City Parks Erindale and Promontory Woods should be managed in regard to their proximity to this natural area.

REFERENCES

Proctor and Redfern Limited. 1992. Sawmill Creek Subwatershed Plan.

Gore & Storrie Limited and R.E. Winter and Associates Limited. 1994. Mississauga Storm Water Quality Control Study. Phase 2 Report.

Ecologistics Limited. 1979. Credit River Watershed, Environmentally Significant Areas.

Landplan Collaborative Limited et al. 1990. Mississauga Public Gardens Feasibility Study.

Ecologistics Limited. 1993. University of Toronto, Erindale College Lands, City of Mississauga, Environmental Impact Study and Tree Study.

South Peel Field Naturalists Club. 1995. Letter to the City of Mississauga re: Natural Areas Survey. Dated July 11, 1995.

iNaturalist as of June 8th, 2018. ONLY research grade observations inputted.

ECOLOGICAL LAND CLASSIFICATION

Dry-Fresh Poplar Deciduous Forest Type (FOD3-1)

This community primarily consists of successional species. Trembling Aspen (*Populus tremuloides*) and White Ash (*Fraxinus americana*) are dominant in the canopy. Natural succession is accompanied by several plantings, including Norway Maple (*Acer platanoides*). Canopy trees are 5-20 m in height and cover greater than 60% of the community. The sub-canopy is 1-2 m in height and contains an abundance of Staghorn Sumac (*Rhus typhina*) and Riverbank Grape (*Vitis riparia*) that cover 25-60% of the community. Understory species include Tartarian Honeysuckle (*Lonicera tatarica*), Canada Goldenrod (*Solidago canadensis*), and Wild Carrot (*Daucus carota*). Understory vegetation is 0.5-1 m in height and covers greater than 60% of the community. The ground layer is dominated by Kentucky Bluegrass (*Poa pratensis*), as well as Timothy Grass (*Phleum pratensis*) and Crown Vetch (*Coronilla varia*) that are 0.2-0.5 m in height and cover greater than 60% of the community.

Dry-Fresh Sugar Maple Deciduous Forest Ecosite (FOD5)

This wooded slope community is dominated by Manitoba Maple (*Acer negundo*), Large-toothed Aspen (*Populus deltoides*), Black Walnut (*Juglans nigra*), and Sugar Maple (*Acer saccharum*). Canopy trees are greater than 25 m in height and cover greater than 60% of the community. The sub-canopy is Sugar Maple, Norway Maple, Manitoba Maple with an abundance of European Buckthorn (*Rhamnus cathartica*) in some areas. The sub-canopy is 10 to 25 m in height and cover greater than 60% of the community. Understory vegetation is Chokecherry, Tartarian Honeysuckle and European Buckthorn. The understory is dense with vegetation (greater than 60% cover) that is 2 to 10 m in height. The ground layer is dominated by Garlic Mustard (*Alliaria petiolata*), Canada Goldenrod (*Solidago canadensis*), Virginia Creeper, Riverbank Grape (*Vitis riparia*) and Running Strawberry Bush (*Euonymus obovatus*) that is less than 1 m in

height and covers greater than 60% of the community.

Dry-Fresh Sugar Maple Deciduous Forest Type (FOD5-1)

This forest is dominated by Sugar Maple in the canopy, sub-canopy, and understory. Canopy trees are 10-30 m in height, sub-canopy trees are 2-10 m, and understory saplings are 0.5-2 m; each layer has greater than 60% cover. American Beech (*Fagus grandifolia*) is an associate tree in the sub-canopy. The understory contains the occasional White Ash (*Fraxinus americana*). The ground layer is diverse with a predominance of Kentucky Bluegrass, Canada Mayflower (*Maianthemum canadensis*), Blue-stemmed Goldenrod (*Solidago caesia*), Sugar Maple seedlings, White Ash seedlings, and Muhly Grass (*Muhlenbergia mexicana*). Ground layer vegetation is less than 0.5 m in height and covers greater than 60% of the community.

Dry-Fresh Sugar Maple-Oak Deciduous Forest Type (FOD5-3)

This forest is located on tableland, east of University of Toronto Mississauga (UTM). The canopy is dominated by Sugar Maple and Red Oak (*Quercus rubra*) as well as the occasional White Pine (*Pinus strobus*), Shagbark Hickory (*Carya ovata*), Black Cherry (*Prunus serotina*), and Red Maple (*Acer rubrum*). Canopy trees are greater than 25 m in height and covers greater than 60% of the community. The sub-canopy is also dominated by Sugar Maple as well as the occasional Manitoba Maple, American Beech (*Fagus grandifolia*), and Eastern Hop-hornbeam (*Ostrya virginiana*). Sub-canopy trees are 10 to 25 m in height and covers greater than 60% of the community. The understory shrubs and trees include Sugar Maple saplings, Chokecherry (*Prunus virginiana*), Alternative-leaved Dogwood (*Cornus alternifolia*), Witch-hazel (*Hamamelis virginiana*), and American Beech saplings. Understory vegetation is 2 to 10 m in height and 60% cover. Ground vegetation primarily consists of Sugar Maple seedlings, Garlic Mustard, Jack-in-the-pulpit (*Arisaema triphyllum*), Yellow Avens

(*Geum aleppicum*), Zigzag Goldenrod (*Solidago flexicaulis*), Virginia Creeper (*Parthenocissus quinquefolia*), Climbing Euonymus (*Euonymus fortunei*) and Broad-leaved Enchanter's Nightshade (*Circaea canadensis*). Ground layer vegetation is less than 2 m in height and covers 10 to 25% of the layer.

Dry-Fresh Sugar Maple-White Ash Deciduous Forest Type (FOD5-8)

Sugar Maple and White Ash dominate the canopy and sub-canopy in this forest community. Associate sub-canopy species include White Elm (*Ulmus americana*) and Manitoba Maple. Canopy trees are greater than 25 m in height, and sub-canopy trees are 10 to 25 m in height; each layer covers greater than 60% of the community. The understory contains an abundance of Sugar Maple saplings, as well as Manitoba Maple, Bitternut Hickory (*Carya cordiformis*), and Chokecherry. The understory is dense (>60% cover) and is between 2 and 10 m. The ground is a little more sparse (25 to 60% cover) and is partially composed of Sugar Maple seedlings, Garlic Mustard, Manitoba Maple seedlings, Alternate-leaved Dogwood and Broad-leaved Enchanter's Nightshade (*Circaea canadensis*).

Fresh-Moist Ash Lowland Deciduous Forest Type (FOD7-2)

This lowland forest is located at the northern end of the site. Green Ash (*Fraxinus pennsylvanica*) dominates the canopy along with the occasional Hybrid Willow (*Salix x fragilis*) and Sugar Maple. Black Walnut (*Juglans nigra*), Siberian Elm (*Ulmus pumila*), and Black Locust (*Robinia pseudo-acacia*) are also found occasionally in the canopy of this forest. Canopy trees are greater than 25 m in height and covers greater than 60% of the layer. The sub-canopy is also dominated by Green Ash as well as the occasional Manitoba Maple that are 2-10 m in height and cover greater than 60% of the community. The understory is dense (greater than 60% cover) with Tartarian Honeysuckle, Green Ash, Riverbank Grape, Manitoba Maple saplings, and Green Ash saplings that are 2 to 10 m in height. Ground vegetation is

variable including Canada Goldenrod, Purple Loosestrife (*Lythrum salicaria*), Yellow Avens, and Garlic Mustard. Ground layer vegetation is less than 1 m in height and covers 25 to 60% of the layer.

Fresh-Moist Willow Lowland Deciduous Forest Type (FOD7-3)

This floodplain community is highly variable, but generally contains vegetation tolerant of periodic wet conditions. The canopy predominantly contains Hybrid Willow, Eastern Cottonwood (*Populus deltoides*), Silver Maple (*Acer saccharinum*), Manitoba Maple, Black Walnut, Bur Oak (*Quercus macrocarpa*), and Shagbark Hickory. Canopy trees are greater than 25 m in height and cover 25 to 60% of the layer. The sub-canopy is dominated by Manitoba Maple, White Elm, Black Walnut, Eastern White Cedar (*Thuja occidentalis*) and Riverbank Grape climbing the trees. Trees in the sub-canopy are 2 to 25 m in height and covers 25-60% of the community. The understory is dense (greater than 60% cover) with Reed Canarygrass (*Phalaris arundinacea*), Spotted Joe Pye Weed (*Eupatorium maculatum*), Canada Goldenrod, Stinging Nettle (*Urtica dioica*), Purple Loosestrife, Giant Ragweed (*Ambrosia trifida*), Rough Mannagrass (*Glyceria maxima*), Manitoba Maple seedling, European Buckthorn, Chokecherry, and Multiflora Rose (*Rosa multiflora*). Understory vegetation is 1 to 2 m in height. The ground layer contains a variety of species including Field Horsetail (*Equisetum arvense*), Reed Canarygrass, Path Rush (*Juncus tenuis*), American Groundnut (*Apios americana*), Yellow Avens, Canada Anemone (*Anemone canadensis*), Garlic Mustard, Giant Goldenrod (*Solidago gigantea*), Early Goldenrod (*Solidago juncea*), and Poison ivy (*Toxicodendron spp.*). Ground vegetation is less than 0.5 m in height and covers greater than 60% of the community.

Dry-Fresh Hardwood – Hemlock Mixed Forest Type (FOM3-1)

This wooded native valleyland is located along the western slope of the Credit River and at the confluence of Mullet Creek along steep slopes.

This community is dominated by Eastern Hemlock (*Tsuga canadensis*), Sugar Maple, and Red Oak in the canopy. Canopy trees are 10-30 m in height and cover greater than 60% of the community. The sub-canopy is also dominated by Eastern Hemlock, as well as Sugar Maple and Hop Hornbeam (*Ostrya virginiana*). Sub-canopy trees are 2-10 m in height and cover greater than 60% of the community. The understory is sparse (10-25% cover) with Witch-hazel (*Hammemalis virginiana*), White Ash, and Black Cherry that are 0.5-2 m in height. The ground layer is also sparsely vegetated (25-60% cover) with Kentucky Bluegrass, Blue-stemmed Goldenrod, False Solomon's-seal (*Maianthemum racemosum*), and Large-leaved Aster (*Eurybia macrophylla*). Ground vegetation is less than 0.5 m in height.

Dry-Fresh Sugar Maple – Hemlock Mixed Forest Type (FOM3-2)

This mixed forest community is dominated by Eastern Hemlock, Sugar Maple, White Pine, American Beech and Northern Red Oak in the canopy. Canopy trees are greater than 30 m in height and cover greater than 60% of the community. The sub-canopy is dominated by Sugar Maple, American Beech and Eastern Hobhornbeam that are 10 to 25 m in height and cover greater than 60% of the community. The understory is sparser (25 to 60% cover) with Sugar Maple saplings and Chokecherry that are 2 to 10 m in height. Ground layer vegetation is patchy (10 to 25% cover) with Garlic Mustard, Pennsylvania Sedge (*Carex pensylvanica*), Large False Solomon's Seal (*Maianthemum racemosum*), Scouring Rush (*Equisetum hyemale*), and Bittersweet Nightshade (*Solanum dulcamara*). Ground vegetation is less than 1 m in height.

Manitoba Maple Mineral Deciduous Swamp Type (SWD3-4)

This floodplain community is dominated by Crack Willow in the canopy (10-30 m in height and covers greater than 60% of the community). The sub-canopy contains an abundance of Manitoba Maple and Black Walnut that are 2-10 m in height and cover greater than 60% of the community.

Understory vegetation predominantly consists of Green Ash, White Elm, Red-osier Dogwood (*Cornus stolonifera*), and Inserted Virginia Creeper that are 0.5-2 m in height and cover 25-60% of the community. The ground layer consists of a diverse mixture of old field and wetland species, such as Enchanter's Nightshade and Spotted Jewelweed (*Impatiens capensis*). Ground vegetation is less than 0.5 m in height and covers greater than 60% of the community.

Cattail Mineral Shallow Marsh Type (MAS2-1)

The shallow marsh is located along the floodplain of the Credit River, just north of Erindale Park. This community has an open canopy of Manitoba Maple, Eastern Cottonwood (*Populus deltoides*), and Hybrid Willow around the edge of the marsh that is 10 to 25 m in height and covers 25 to 60% of the layer. The subcanopy (2-10m in height; 25 to 60% cover) of the community is Manitoba Maple, Eastern White Cedar, Eastern White Pine, Green Ash and Sandbar Willow (*Salix interior*). The understory (1-2 m in height; >60% cover), the marsh, is dominated by Narrow-leaved Cattail (*Typha angustifolia*), Great Ragweed (*Ambrosia trifida*), Himalayan Balsam (*Impatiens glandulifera*), Stinging Nettle (*Urtica dioica*), Reed Canarygrass and Purple Loosestrife. The ground layer is <2 m in height and covers greater than 60% of the community, dominated by Spotted Jewelweed, Devil's Beggarticks (*Bidens frondosa*), Canada Thistle (*Cirsium arvense*), and Hedge Bindweed (*Calystegia sepium*).

Mineral Meadow Marsh Ecosite (MAM2)

The community was treated for Common Reed in the summer of 2022. This community has an open canopy and is dominated by Common Reed (*Phragmites australis* subsp. *australis*), Narrowleaf Cattail, and Broad-leaved Cattail (*Typha latifolia*) in the understory. The understory layer is 2 to 10 m in height and covers greater than 60% of the community. The ground layer is also dense (>60% cover). The species growing in the ground layer primarily Reed

Canarygrass, Spotted Joe Pye Weed (*Eutrochium maculatum*), Purple Loosestrife, and Dark-green Bulrush (*Scirpus atrovirens*) is less than 2 m in height.

Reed-Canary Grass Mineral Meadow Marsh (MAM2-2)

This community has an open canopy with sparse (<10% cover) of Hybrid Willow and Manitoba Maple that are 2-25 m in height. The sub-canopy is dominated by Reed-canary Grass that is 1-2 m in height and covers more than >60% of the community. The understory layer is 1-2 m in height and covers greater than 60% of the community and is dominated by Spotted Jewelweed and Lance-leaved Aster (*Symphotrichum lanceolatum*). The ground layer is relatively sparse (25-60% cover) with True Forget-me-not (*Myosotis scorpioides*) and Great Manna Grass (*Glyceria maxima*). Ground layer vegetation is 0.5-1 m in height.

Dry-Moist Old Field Meadow Type (CUM1-1)

Old field communities are located on the tableland adjacent to Erindale College and south of the 403. The meadow has an open canopy (less than 10% cover) of Manitoba Maple, Large-tooth Aspen, and the occasional White Spruce (*Picea glauca*) and Hawthorn (*Crataegus* spp.). Canopy trees are 2-10 m in height. The understory is sparse (10 to 25%) and has Common Teasel, Canada Goldenrod, Fragrant Sumac (*Rhus aromatica*), Serviceberry (*Amelanchier* sp.) and Freeman's Maple (*Acer xfreemani*), which are 1 to 2 m. The understory is dense (>60% cover), and is dominated by Smooth Brome (*Bromus inermis*), Canada Thistle (*Cirsium arvense*), Kentucky Bluegrass (*Poa pratensis*), Orchard Grass (*Dactylis glomerata*), Bird's-foot Trefoil (*Lotus corniculatus*), and Quackgrass (*Elymus repens*). The understory vegetation is less than 1 m in height.

Open Aquatic (OAO)

The Credit River is classified as an open aquatic community. The vegetation associated with the Credit River is primarily located along the banks, in surrounding vegetation communities.

Manicured

The manicured community is located immediately north of Dundas Street (Erindale Park). There are picnic areas, parking and playgrounds present in this area.