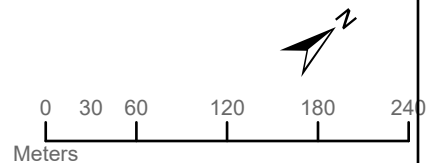


Natural
AREAS SYSTEM

2024 NATURAL AREAS UPDATE

SITE CV10

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



CV10

CLASSIFICATION Significant Natural Area	Park Name Cooksville Creek Trail; Cooksville Park	PLANNING DISTRICT Cooksville	AREA (Ha) 6.67
CONSERVATION AUTHORITY CVC	SUBWATERSHED Cooksville Creek	OWNERSHIP Private/ Public	SURROUNDING LAND USE Residential

GENERAL SUMMARY

South along Cooksville Creek from King Street East to the Queensway East. Throughout its length Cooksville Creek links a number of natural areas, including CC1, CV8, and LV4, as well as CV10. Contributes to the linkage function of Cooksville Creek. Floodplain provides floodwater storage for Cooksville Creek.

PHYSICAL DESCRIPTION

The topography of this site is relatively flat, and its bedrock geology consists of grey shales of the Georgian Bay Formation. These are overlain by up to 7.5 m of soil and glacial deposits consisting of well drained Fox sand, which was developed within Lake Iroquois shallow water deposits. Cooksville Creek is extensively engineered throughout this site.

CONDITION

This site is currently in poor condition. Disturbances are extensive and include encroachment and channelization (gabion baskets and armour stone) of the creek. Emerald Ash Borer infestation has led to the death of canopy ash trees, although ashes are still present in the understory. Invasive plant species are prevalent at this site and include Garlic Mustard, Tartarian Honeysuckle, European Buckthorn, and Common Reed. Eighty-nine introduced plant species are present at this site (representing 48.11% of the total number of species present) which is considered very high. Surrounding land use is residential.

ECOLOGICAL LAND CLASSIFICATION

Number of Plant Communities

Six vegetation communities are present at this site (see accompanying figure): fresh-moist lowland deciduous forest (FOD7), fresh-moist

willow lowland deciduous forest type (FOD7-3), fresh-moist black walnut lowland deciduous forest type (FOD7-4), cultural savannah (CUS), mineral cultural woodland ecosite (CUW1), and dry-moist old field meadow type (CUM1-1).

Significant Plant Communities

There are no Significant Plant Communities in CV10.

SPECIES RICHNESS

Flora

The native FQI is 31.79 (a medium value) and the native mean coefficient is 3.24 (a low value). The native FQI has increased from previous value of 31.36 and the native mean coefficient has remained the same as the previous value of 3.24, respectively.

There are 185 floral species documented for this site.

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

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

Fauna

From the perspective of wildlife habitat, this site is relatively linear, with some broader nodes. Although small in area, portions of this natural area are relatively mature. The diversity of breeding birds documented at the site is typical of natural areas this size. The most common birds were those adapted to small patches of habitat and urban conditions, such as Northern Cardinal,

Red-winged Blackbird, and American Goldfinch. Mallard were seen occasionally along the creek. Common Grackle and Gray Catbird require successional habitat and were documented from this site. Chimney Swift was observed on site; a species that requires structures that permit cavity nesting. Hairy Woodpecker, Red-eyed Vireo, and Eastern Wood-pewee were also note on site; all species that require mature woodlands. This site provides important breeding, migration and overwintering habitat for several bird species. There are 38 birds, 5 mammals, 1 butterfly/moth and 1 reptile documented at this site. Cooksville Creek is classified as a type 2 fishery within this site.

There are 45 faunal species documented for this site.

3 provincially significant fauna species have been noted: 1 Threatened, 2 Special Concern.

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

MANAGEMENT RECOMMENDATIONS

1. Cooksville and Cooksville Common City Parks and public unnamed lands are included within this natural area.
2. Stormwater impacts were noted throughout the site. Vegetation is periodically flattened during extreme storm events and silt is deposited, thus making regeneration extremely difficult.
3. Continued monitoring of Cooksville Creek to ensure the frequency and intensity of flooding events is reduced. Continue rehabilitation and adaptive management if needed.

REFERENCES

City of Mississauga (1978)

Gore & Storrie Limited and R.R. Winter & Associates Limited (1994)

ECOLOGICAL LAND CLASSIFICATION

Fresh-Moist Lowland Deciduous Forest Type (FOD7)

This lowland forest is characterized by an open canopy of Manitoba Maple (*Acer negundo*) and Norway Maple (*Acer platanoides*), Crack Willow (*Salix fragilis*), and Black Walnut (*Juglans nigra*). The canopy trees are typically 10-25 m in height and 50 cm in diameter and cover greater than 60% of the community. Scattered mature Red Oak (*Quercus rubra*) are also found in the canopy of this community on drier soils. American Elm (*Ulmus americana*) and young Green Ash (*Fraxinus pennsylvanica*) form a discontinuous sub-canopy of trees that are 2-10 m in height and cover 25-60% of the forest. European Buckthorn (*Rhamnus cathartica*) dominates the understory, along with Red-osier Dogwood (*Cornus stolonifera*) in places. Understory vegetation is 1-2 m in height and covers greater than 60% of the community. The ground layer is dominated by Garlic Mustard (*Alliaria petiolata*), Yellow Avens (*Geum aleppicum*), Enchanter's Nightshade (*Circaea lutetiana*) and Riverbank Grape (*Vitis riparia*). Regeneration includes a mixture of Norway Maple (*Acer platanoides*), Manitoba Maple (*Acer negundo*) and Green Ash. The lowland forest community contains pockets of wetland vegetation in wet depressions including various graminoid species (*Cyperus strigosus*, *Eleocharis erythropoda* and *Scirpus cyperinus*) and Jewelweed (*Impatiens capensis*). Portions of this community are overgrown with Riverbank Grape (*Vitis riparia*), which appears to be hindering regeneration within the understory.

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

The willow lowland community occurs along the Creek throughout the natural area. Scattered mature Willow species (*Salix spp.*) form an open canopy (10-25 m, 25-60% cover) above a sub-canopy of Manitoba Maple (*Acer negundo*), American Elm (*Ulmus americana*) and Black Walnut (*Juglans nigra*) (2-10 m, greater than

60% cover). Dogwood species (*Cornus spp.*), Ash species (*Fraxinus spp.*), Dog Rose (*Rosa canina*), and Multiflora Rose (*Rosa multiflora*) are prevalent in the dense understory. Understory vegetation is 1-2 m in height and covers 25-60% of the forest. The ground layer is dominated by the invasive species Garlic Mustard (*Alliaria petiolata*) and Erect Hedge-parsley (*Torilis japonica*) that is 0.5-0.1 m in height and covers greater than 60% of the community.

Fresh-Moist Black Walnut Lowland Deciduous Forest Type (FOD7-4)

This lowland forest is dominated by Black Walnut (*Juglans nigra*) and Oak species (*Quercus spp.*) in the canopy. Canopy trees are 10-25 m in height and cover greater than 60% of the community. The sub-canopy contains an abundance of Manitoba Maple (*Acer negundo*), and American Basswood (*Tilia americana*). Sub-canopy vegetation is 2-10 m in height and covers 25-60% of the community. The dense understory (25-60% cover) contains an abundance of Green Ash (*Fraxinus pennsylvanica*), Alternate-leaved Dogwood (*Cornus alternifolia*), European Buckthorn (*Rhamnus cathartica*), and Privet (*Ligustrum vulgare*), all of which is 1-2 m in height. The ground layer contains a variety of species including Garlic Mustard (*Alliaria petiolata*), Panicked Aster (*Symphotrichum lanceolatum*), and Canada Goldenrod (*Solidago canadensis*). Ground layer vegetation is 0.5-1 m in height and covers greater than 60% of the community.

Cultural Savannah (CUS)

This community is highly manicured and is composed of Bur Oak (*Quercus macrocarpa*) White Pine (*Pinus strobus*) and American Elm (*Ulmus americana*) in the canopy, while everything beneath the canopy is manicured (mowed grass). The canopy trees are greater than 25 m in height and cover greater than 60% of the community.

Mineral Cultural Woodland Ecosite (CUW1)

The cultural woodland has a sparse canopy (25-60% cover) of Manitoba Maple (*Acer negundo*), Sugar maple (*Acer saccharum*) and Willow species (*Salix* spp.). Canopy trees are 10-25 m in height. The sub-canopy is mainly composed of Manitoba Maple that are 2-10 m in height and cover 10-25% of the woodland. Understory vegetation primarily consists of an abundance of Euonymus species (*Euonymus* spp.), Tartarian Honeysuckle (*Lonicera tatarica*) and European Buckthorn (*Rhamnus cathartica*). Understory vegetation is 1-2 m in height and covers 25-60% of the community. The ground layer contains a variety of species including Garlic Mustard (*Alliaria petiolata*), and Virginia Creeper (*Parthenocissus quinquefolia*). Ground layer vegetation is 0.5-1 m in height and covers 25-60% of the community.

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

Canopy includes Manitoba Maple and Russian Olive (*Eleagnus angustifolia*) The meadow has been mowed along the north side of the path, and a dense stand of Common Reed (*Phragmites australis*) occurs in a wet depression on the south side of the path along Queensway East.