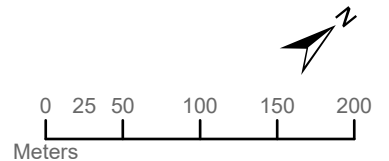


Natural AREAS SYSTEM

2024 NATURAL AREAS UPDATE

SITE MB7

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



MB7

CLASSIFICATION Natural Green Space	Park Name Mullet Creek Park	PLANNING DISTRICT Meadowvale Business Park	AREA (Ha) 9.95
CONSERVATION AUTHORITY CVC	SUBWATERSHED Mullet Creek	OWNERSHIP Private	SURROUNDING LAND USE Industrial

GENERAL SUMMARY

Along Mullet Creek from Argentia Road, west of Erin Mills Parkway, north to Highway 401. Throughout its length, Mullet Creek links a number of natural areas including CE1, CE5, CE9, CE12, MB3, MB6, MB9, SV10, and SV12.

PHYSICAL DESCRIPTION

This site is located in the Mullet Creek subwatershed. Mullet Creek is channelized in this area. Bedrock geology consists of the red shales of the Queenston Formation. These are overlain by up to 7.5 m of soils and glacial deposits consisting of well drained Oneida clay loam, imperfectly drained Chinguacousy clay loam, and a small deposit of poorly drained Jeddo clay loam near Derry Road. All were formed within deposits of the Halton till plain.

CONDITION

This site is in poor condition. Mullet Creek which runs through this site is bound by gabion baskets, however, vegetation has established at the immediate edge of the channel, and some vegetation is growing out of the gabion baskets. Other disturbances include cutting, garbage, many informal trails, dumping, and excessive noise. Highly invasive plant species (as regarded by Ontario Invasive Plant Council) found on site include Garlic Mustard, Wild Parsnip (*Pastinaca sativa*), Purple Loosestrife, Common Reed (*Phragmites australis subsp. australis*), Tatarian Honeysuckle (*Lonicera tatarica*), Himalayan Balsam (*Impatiens glandulifera*), European Buckthorn (*Rhamnus cathartica*), and Dog-strangling Vine (*Vincetoxicum rossicum*). 70 introduced plant species (representing 48.95% of the total number of species present) are present at this site, which is high for the City of Mississauga.

ECOLOGICAL LAND CLASSIFICATION

Number of Plant Communities

5 vegetation communities are present at this site (see accompanying figure); dry-fresh old field meadow type (CUM1-1), coniferous plantation ecosite (CUP3), fresh-moist lowland deciduous forest ecosite (FOD7), forb mineral meadow marsh type (MAM2-10), and a manicured area.

Significant Plant Communities

There are no Significant Plant Communities in MB7.

SPECIES RICHNESS

Flora

The native FQI is 26.54 and the native mean coefficient is 3.11, which are both low values, respectively. The native FQI and the native mean coefficient have both slightly increased from previous values of 25.88 and 3.09, respectively.

There are 143 floral species documented for this site.

No provincially significant flora species have been noted.

3 locally significant flora species have been noted on site; all are rare species (known from 1 to 3 locations) within the City.

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

Fauna

From the perspective of wildlife habitat, this site is relatively small and open. A total of 23 bird, 1

mammal, 1 dragonfly, and 3 lepidoptera species have been recorded at this site. Most of the species noted were habitat generalists, highly adaptable species that nest in a wide variety of large and small forests, wetlands and cultural communities in southern Ontario. These included species such as Red-winged Blackbird, American Goldfinch, and Song Sparrow. Barn swallows were seen overhead in 2010 but this species generally nests on human structures and no nesting habitat was seen within the natural area. Mullet Creek is a type 2 fishery within this site.

There are 28 faunal species documented for this site.

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

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

MANAGEMENT RECOMMENDATIONS

1. The City Park, Mullet Creek, is included within this natural area.
2. Enhancement plantings should be monitored and adaptively managed. In the past trees have been planted and are later girdled by the tree wraps that were installed when they were first planted. The tree wraps should be removed from these trees to promote the health of the trees.
3. The invasive species should be controlled at this site. In the past Dog-strangling Vine was noted and not managed. Dog-strangling Vine is now prevalent on site and will be harder to manage and remove.

REFERENCES

None noted.

ECOLOGICAL LAND CLASSIFICATION

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

The old field community occurs in patches throughout the site. The canopy contains scattered (1-10% community cover) tree species that range in height from 10-25 m: Norway Maple (*Acer platanoides*), and Eastern White Pine (*Pinus strobus*). The sub-canopy also contains dispersed (10-25% cover) European Buckthorn, Tatarian Honeysuckle, Phragmites, and Staghorn Sumac (*Rhus typhina*) 2-10 m. The understory covers greater than 60% of the community and is dominated by Canada Goldenrod (*Solidago canadensis*), Common Teasel (*Dipsacus fullonum*), and New England Aster (*Symphotrichum novae-angliae*) that are 1-2 m in height. Common groundcover species are less than 0.5 m in height and include Kentucky Bluegrass (*Poa pratensis*), Sweet White-clover (*Melilotus albus*), and Dog-strangling Vine. The ground layer covers greater than 60% of this community.

Fresh-Moist Lowland Deciduous Forest Ecosite (FOD7)

This forest is mostly composed of Freeman's Maple (*Acer x freemanii*) in the canopy, with some Willow (*Salix sp.*). They are 10-25 m and cover >60%. The understory is partially made up of Green Ash (*Fraxinus pennsylvanica*), Trembling Aspen (*Populus tremuloides*), Freeman's Maple, and European Buckthorn. The understory is 2-10 m high and has >60% cover. The understory is also dense (>60% cover) and is dominated by European Buckthorn and Tatarian Honeysuckle, there is also Red-osier Dogwood (*Cornus sericea*) and Staghorn Sumac as associated, which are 1-2 m high. The Ground is sparser (25-60% cover), less than 1 m high and is made up of Smooth Brome (*Bromus inermis*), European Buckthorn seedlings and Canada Goldenrod.

Forb Mineral Meadow Marsh Type (MAM2-10)

The meadow marsh community is located along the banks of Mullet Creek. This community has an open canopy (1-10% cover) of scattered Hybrid Willow (*Salix x fragilis*) that is 2-10 m in height. The sub-canopy is dense (>60% cover)

and contains Narrowleaf Cattail (*Typha angustifolia*), Soft-stemmed Bulrush (*Schoenoplectus tabernaemontanii*), and Phragmites, which are 1-2 m tall. The understory covers >60% of the community and is partly comprised of Purple Loosestrife, Spotted Joe Pye Weed (*Eutrochium maculatum*) and Reed Canarygrass (*Phalaris arundinacea*). The ground layer covers greater than 60% of the community and is 0.5-1 m in height. It is composed of Spotted Lady's Thumb (*Persicaria maculatum*), Rough Cocklebur (*Xanthium strumarium*), Wild Cucumber (*Echinocystis lobata*), and Canada Thistle (*Cirsium arvense*).

Coniferous Plantation Ecosite (CUP3)

The plantations are located in small groupings throughout this natural area. The plantation is dominated by Austrian Pine (*Pinus nigra*) with Eastern White Pine (*Pinus strobus*) and European Buckthorn (*Rhamnus cathartica*) as associates in the canopy (>60% cover, 10-25 m in height). The sub-canopy is dense, covering >60% of the community with 2-10 m tall with European Buckthorn, Eastern White Pine and Tatarian Honeysuckle. The understory covers 25-60% of the plantation with Tatarian Honeysuckle and European Buckthorn (1-2 m in height). The ground layer consists of Wood Avens (*Geum urbanum*), European Buckthorn, White Ash seedlings, Common Motherwort (*Leonurus cardiaca*), and Dog-strangling Vine (10-25% cover; < 1 m in height).

Manicured

Portions of this natural area, around the path have been mowed. Some larger areas have been mowed to allow for picnic opportunities. During the 2022 survey, shrubs and small trees were being planted in the manicured areas.