

# Memo

**To:** Shawna Bowen City of Toronto

**From:** David Restivo, Dillon Consulting Limited  
Bo Lam, Dillon Consulting Limited

**cc:** Chris Haines, Dillon Consulting Limited

**Date:** September 9, 2020, Updated July 25, 2024

**Subject:** Final Natural Heritage Existing Conditions Memo – Rouge Park Bridges  
Transportation Master Plan Environmental Assessment

**Our File:** 19-1924

## 1.0

## Introduction

Dillon Consulting Limited (Dillon) has been retained by the City of Toronto (the City) to complete a Transportation Master Plan Environmental Assessment (TMPEA) for the following five bridges located on City roads within the Rouge National Urban Park (RNUP), Ontario (the Project):

- Sewells Road Bridge;
- Milne Bailey Bridge;
- Hillside Bridge;
- Maxwell's Bridge; and
- Stott's Bridge.

This memo documents the results of the natural heritage existing conditions background review and scoped field program, in which the following activities were undertaken:

- A desktop review of secondary source information and consultation with regulatory agencies to identify potential natural heritage features/species present within the Project Study Area and/or the Project Focus Areas (500 meter [m] radius around each of the five bridge structures); (completed in 2020);
- Site investigations within 120 m of each bridge structure (the Field Study Areas) (completed in 2020); and
- Based on feedback provided by TRCA, additional information related to aquatic features was added in June 2024.

The Project Study Area and the Project Focus Areas are shown on **Figure 1**.

## Desktop Review

The following sections provide a brief summary of the existing conditions within the broader Project Study Area and Project Focus Areas based on readily available secondary source information.

In addition, requests for natural heritage features and wildlife species information were submitted to the Toronto and Region Conservation Authority (TRCA), Ministry of Natural Resources and Forestry (MNRF) and Parks Canada on March 24 and March 25, 2020. Responses were received from Parks Canada on March 26, April 2, and April 7, 2020. Responses from TRCA and MNRF are pending as of the date of this report.

### Project Study Area

The Project Study Area spans from Highway 401 in the south to Steeles Avenue East in the north, and from McCowan Road in the west to York Durham Line in the east. The majority of the Project Study Area lies within the Lake Erie-Lake Ontario Ecoregion (7E); the northeastern portion of the Project Study Area lies within the Lake Simcoe-Rideau Ecoregion (6E) (**Figure 2**). Ecoregion 7E is Ontario's most southern ecoregion and extends from Windsor and Sarnia to the Niagara Peninsula and Toronto (Crins et al., 2009). It is the most heavily urbanized and industrialized ecoregion in Ontario, has a relatively mild climate, and contains the most diverse flora and fauna in Canada (Crins et al., 2009). Ecoregion 6E stretches from Lake Huron east to the Ottawa River (Crins et al., 2009). It is the second most densely populated ecoregion in Ontario, and includes cities such as Owen Sound, Collingwood, Barrie, Peterborough, Kingston, and Ottawa. Ecoregion 6E has a mild and moist climate and also has relatively diverse vegetation (Crins et al., 2009).

The western and southwestern portions of the Project Study Area are located within the Highland Creek watershed, while the remainder of the Project Study Area is located within the Rouge River watershed (**Figure 2**). The Highland Creek watershed drains an area of approximately 102 kilometers squared (km<sup>2</sup>) (TRCA, 2020a) and is highly urbanized with 89% urban land cover and 11% natural cover (TRCA, 2018a). Key issues in the Highland Creek watershed include stormwater runoff, habitat loss and fragmentation, and invasive species (TRCA, 2018a). The Rouge River watershed is approximately 336 km<sup>2</sup> and includes all of the lands which drain to the Rouge River and its tributaries, including Little Rouge Creek (TRCA, 2020b). Land cover in the watershed is approximately 40% rural, 35% urban, 24% forest/wetland/meadow, and 1% watercourses/water bodies (TRCA, 2020b). Key issues in this watershed include increased urbanization, stormwater runoff, and habitat protection, including a fish Species at Risk (SAR), Redside Dace (*Clinostomus elongatus*) (TRCA, 2018b).

The RNUP overlaps the eastern portion of the Project Study Area (**Figure 2**). The RNUP has a south-to-north orientation which overall extends for 25 km and links Lake Ontario in the south with the Oak Ridges Moraine in the north (Parks Canada, 2019). Under the Rouge National Urban Park Act (2015), the maintenance and restoration of ecological integrity, through the protection of natural resources and natural processes, is the first priority when considering all aspects of the management of the park.

As shown on **Figure 2**, there are several designated natural heritage features associated with the RNUP located within the Project Study Area, including:

- Rouge River;
- Rouge River Valley Area of Natural and Scientific Interest (ANSI), Life Science;
- Candidate Pickering-Scarborough Iroquois Beach Candidate ANSI, Life Science;
- Cedar Grove Wetland Complex Provincially Significant Wetland (PSW);
- Townline Swamp Wetland Complex PSW;
- Unevaluated wetlands; and
- Woodland.

In addition, over 1,700 flora and fauna species are known to occur in RNUP, including 1,000 plants, 261 birds, 65 fish, 40 mammals, and 21 reptile and amphibian species (Parks Canada, 2019). Twenty-seven SAR, designated as Special Concern, Threatened, or Endangered under the federal Species at Risk Act (SARA, 2002) are also found within the park (Parks Canada, 2018). These SAR include Butternut (*Juglans cinerea*), bat species (Tri-colored Bat [*Perimyotis subflavus*], Northern Myotis [*Myotis septentrionalis*], Little Brown Bat [*Myotis lucifugus*]), Blanding's Turtle (*Emydoidea blandingii*), Redside Dace, Chimney Swift (*Chaetura pelagica*), Least Bittern (*Ixobrychus exilis*), Bobolink (*Dolichonyx oryzivorus*) and Eastern Meadowlark (*Sturnella magna*), among others.

## 2.2 Project Focus Area

---

As shown on **Figure 2**, the five Project Focus Areas are located within Ecoregion 7E and the Rouge River watershed described above. The natural features identified within each Project Focus Area, as identified through the desktop review, are summarized in **Table 1** and shown on **Figures 3a-3e**. These natural features are potential environmental constraints that should be taken into consideration during the design of the bridge rehabilitation or replacement works.

**Table 1: Project Focus Area Natural Heritage Feature Summary**

	<b>SEWELLS ROAD BRIDGE</b>	<b>MILNE BAILEY BRIDGE</b>	<b>HILLSIDE BRIDGE</b>	<b>STOTT'S BRIDGE</b>	<b>MAXWELL'S BRIDGE</b>
Waterbodies/ Watercourses	<ul style="list-style-type: none"> <li>• Rouge River and tributaries</li> </ul>	<ul style="list-style-type: none"> <li>• Rouge River and tributaries</li> </ul>	<ul style="list-style-type: none"> <li>• Little Rouge Creek</li> </ul>	<ul style="list-style-type: none"> <li>• Rouge River</li> <li>• Little Rouge Creek</li> </ul>	<ul style="list-style-type: none"> <li>• Rouge River</li> <li>• Little Rouge Creek</li> </ul>
Wetlands	<ul style="list-style-type: none"> <li>• Unevaluated wetlands</li> <li>• Cedar Grove Wetland Complex PSW</li> </ul>	<ul style="list-style-type: none"> <li>• Unevaluated wetlands</li> <li>• Cedar Grove Wetland Complex PSW</li> </ul>	<ul style="list-style-type: none"> <li>• Unevaluated wetlands</li> </ul>	<ul style="list-style-type: none"> <li>• Unevaluated wetlands</li> </ul>	<ul style="list-style-type: none"> <li>• Unevaluated wetlands</li> <li>• Townline Swamp Wetland Complex PSW</li> </ul>
ANSI	<ul style="list-style-type: none"> <li>• Rouge River Valley (Life Science)</li> </ul>	<ul style="list-style-type: none"> <li>• Rouge River Valley (Life Science)</li> </ul>	<ul style="list-style-type: none"> <li>• Rouge River Valley (Life Science)</li> </ul>	<ul style="list-style-type: none"> <li>• Rouge River Valley (Life Science) Rouge River Section (Earth Science)</li> </ul>	<ul style="list-style-type: none"> <li>• Rouge River Valley (Life Science)</li> <li>• Little Rouge Creek (Earth Science)</li> </ul>
Woodland	<ul style="list-style-type: none"> <li>• Identified throughout the Focus Area</li> </ul>	<ul style="list-style-type: none"> <li>• With the exception of the southwest area, identified throughout Project Focus Area</li> </ul>	<ul style="list-style-type: none"> <li>• Identified primarily adjacent to Little Rouge Creek</li> </ul>	<ul style="list-style-type: none"> <li>• Identified throughout the Project Focus Area</li> </ul>	<ul style="list-style-type: none"> <li>• Identified throughout the Project Focus Area</li> </ul>

## 2.3

## Fish Community

---

As noted above, the five Project Focus Areas are located within the Rouge River watershed and more specifically, the Lower Rouge and Little Rouge subwatersheds. The Sewells Road Bridge, Milne Bailey Bridge and Stott's Bridge cross the Rouge River within the Lower Rouge subwatershed while the Hillside Bridge and Maxwell's Bridge cross the Little Rouge River in the Little Rouge Subwatershed. Below is a summary of the publicly available fish community data within the Rouge River and Little Rouge River collected by the TRCA in 2018 and 2021 as part of their Regional Watershed Monitoring Program (TRCA, 2024).

### 2.3.1

#### Rouge River

---

The TRCA has two monitoring stations in the Rouge River within the Project Focus Areas. Station RG002WM is located at Stott's Bridge and Station RG006WM is located at Sewells Road Bridge. The fish community data collected at these two stations are summarized in **Table 2** below.

### 2.3.2

#### Little Rouge River

---

The TRCA has one monitoring station in the Little Rouge River within the Project Focus Areas. Station RG001WM is located approximately 200 m downstream of Maxwell's Bridge. Due to a lack of an upstream TRCA monitoring station in the Little Rouge River within the Project Focus Areas, data from Station RG007WM has been included to provide a fulsome overview of the fish community. Station RG007WM is located at the Reesor Road crossing, approximately 3.7 km upstream of the Hillside Bridge. The fish community data collected at these two stations are summarized in **Table 3** below.

**Table 2: TRCA Fish Community Data within the Rouge River**

Scientific Name	Common Name	Federal SARA Registry Status <sup>1</sup>	Ontario ESA Species At Risk List Status <sup>2</sup>	Provincial Conservation Rank (Srank) <sup>3</sup>	Station RG002WM	Station RG006WM
Ambloplites rupestris	Rock Bass	---	---	S5	X	X
Ameiurus nebulosus	Brown Bullhead	---	---	S5	X	
Campostoma anomalum	Central Stoneroller	---	---	S4	X	
Catostomus commersoni	White Sucker	---	---	S5	X	X
Cyprinella spiloptera	Spotfin Shiner	---	---	S4	X	
Cyprinus carpio	Common Carp	---	---	SNA	X	
Etheostoma caeruleum	Rainbow Darter	---	---	S4	X	X
Etheostoma nigrum	Johnny Darter	---	---	S5		X
Lepomis gibbosus	Pumpkinseed	---	---	S5	X	X
Luxilus cornutus	Common Shiner	---	---	S5	X	
Micropterus dolomieu	Smallmouth Bass	---	---	S5	X	X
Neogobius melanostomus	Round Goby	---	---	SNA	X	
Nocomis micropogon	River Chub	---	---	S4	X	X
Noturus flavus	Stonecat	---	---	S4	X	X
Pimephales notatus	Bluntnose Minnow	---	---	S5	X	X

Scientific Name	Common Name	Federal SARA Registry Status <sup>1</sup>	Ontario ESA Species At Risk List Status <sup>2</sup>	Provincial Conservation Rank (Srank) <sup>3</sup>	Station RG002WM	Station RG006WM
<i>Pimephales promelas</i>	Fathead Minnow	---	---	S5	X	X
<i>Rhinichthys atratulus</i>	Blacknose Dace	---	---	S5	X	X
<i>Rhinichthys cataractae</i>	Longnose Dace	---	---	S5	X	X
Salmonidae sp.	Salmon and Trout species	---	---	---		X
<i>Semotilus atromaculatus</i>	Creek Chub	---	---	S5	X	X

<sup>1</sup>Federal Species at Risk Act (--- = not applicable); <sup>2</sup>Ontario Endangered Species Act (--- = not applicable); <sup>3</sup>Ontario SRank; S5 = secure; S4= apparently secure; SNA = non-native or exotic species to Ontario; --- = not applicable.

**Table 3: TRCA Fish Community Data within the Little Rouge River**

Scientific Name	Common Name	Federal SARA Registry Status <sup>1</sup>	Ontario ESA Species At Risk List Status <sup>2</sup>	Provincial Conservation Rank (Srank) <sup>3</sup>	Station RG001WM	Station RG007WM
Ambloplites rupestris	Rock Bass	---	---	S5	X	X
Ameiurus nebulosus	Brown Bullhead	---	---	S5	X	X
Campostoma anomalum	Central Stoneroller	---	---	S4	X	X
Catostomidae sp.	Sucker species	---	---	---	X	
Catostomus commersoni	White Sucker	---	---	S5	X	X
Cyprinella spiloptera	Spotfin Shiner	---	---	S4	X	
Cyprinus carpio	Common Carp	---	---	SNA	X	
Etheostoma caeruleum	Rainbow Darter	---	---	S4	X	X
Etheostoma nigrum	Johnny Darter	---	---	S5	X	X
Lepomis gibbosus	Pumpkinseed	---	---	S5	X	X
Lepomis macrochirus	Bluegill	---	---	S5	X	
Luxilus cornutus	Common Shiner	---	---	S5	X	X
Micropterus dolomieu	Smallmouth Bass	---	---	S5	X	
Micropterus salmoides	Largemouth Bass	---	---	S5	X	



Scientific Name	Common Name	Federal SARA Registry Status <sup>1</sup>	Ontario ESA Species At Risk List Status <sup>2</sup>	Provincial Conservation Rank (Srank) <sup>3</sup>	Station RG001WM	Station RG007WM
Neogobius melanostomus	Round Goby	---	---	SNA	X	
Nocomis biguttatus	Hornyhead Chub	---	---	S4		X
Nocomis micropogon	River Chub	---	---	S4	X	
Notropis rubellus	Rosyface Shiner	---	---	S4	X	
Notropis stramineus	Sand Shiner	---	---	S4	X	
Noturus flavus	Stonecat	---	---	S4	X	X
Oncorhynchus mykiss	Rainbow Trout	---	---	SNA		X
Perca flavescens	Yellow Perch	---	---	S5	X	
Percina caprodes	Logperch	---	---	S5	X	
Pimephales notatus	Bluntnose Minnow	---	---	S5	X	X
Pimephales promelas	Fathead Minnow	---	---	S5	X	
Rhinichthys atratulus	Blacknose Dace	---	---	S5	X	X
Rhinichthys cataractae	Longnose Dace	---	---	S5	X	X
Semotilus atromaculatus	Creek Chub	---	---	S5	X	X

<sup>1</sup>Federal Species at Risk Act (--- = not applicable); <sup>2</sup>Ontario Endangered Species Act (--- = not applicable); <sup>3</sup>Ontario SRank; S5 = secure; S4= apparently secure; SNA = non-native or exotic species to Ontario; --- = not applicable.

## Significant Wildlife Habitat

For the purposes of this memo, Species of Conservation Concern (SCC) are defined as nationally, provincially (SRank of S1-S3), regionally or locally rare (LRank L1-L3) and/or species listed as Special Concern under the Endangered Species Act (ESA, 2007), but does not include species listed as Threatened or Endangered under the ESA, 2007 or the Species at Risk Act (SARA, 2002). Based on the background review, numerous SCC have the potential to occur within each Project Focus Areas, as summarized on the next page **Table 4**.

These SCC have been considered in determining the potential for Significant Wildlife Habitat (SWH), as defined by the Eco-region 7E Criterion Schedules (MNRF, 2015), to occur within the Project Focus Areas. Based on background review, SWH with the potential to occur within one or more of the Project Focus Areas includes, but is potentially not limited to:

- Raptor Wintering Area;
- Bat Maternity Colonies;
- Turtle Wintering Areas;
- Reptile Hibernaculum;
- Colonially – Nesting Bird Breeding Habitat (Bank and Cliff and Tree/Shrub);
- Migratory Butterfly Stopover Areas;
- Landbird Migratory Stopover Areas;
- Deer Winter Congregation Areas;
- Rare Vegetation Communities;
- Bald Eagle and Osprey Nesting, Foraging and Perching Habitat;
- Woodland Raptor Nesting Habitat;
- Turtle Nesting Areas;
- Amphibian Breeding Habitat (Woodland and Wetland);
- Woodland Area-Sensitive Bird Breeding Habitat;
- Marsh Breeding Bird Habitat;
- Open Country Bird Breeding Habitat;
- Shrub/Early Successional Bird Breeding Habitat; and
- Special Concern and Rare Wildlife Species.

Field surveys to confirm wildlife presence and habitat use were not undertaken for the study; however, the site investigation included visual observations of habitat features observed in the field.

**Table 4: Species of Conservation Concern with the Potential to Occur Within the Project Focus Areas**

SCIENTIFIC NAME	COMMON NAME	SARA1	ESA2	S-RANK3	Local Rank (L-rank)4	INFO SOURCE5	SEWELLS ROAD BRIDGE	MILNE BAILEY BRIDGE	HILLSIDE BRIDGE	STOTT' S BRIDGE	MAXWELL' S BRIDGE
BIRDS											
Haliaeetus leucocephalus	Bald Eagle	---	SC	S2N,S4B	---	CBC	X	X	X	X	X
Nycticorax nycticorax	Black-crowned Night-heron	---	---	S3B,S3N	L3	CBC	X	X	X	X	X
Contopus virens	Eastern Wood-pewee	SC	SC	S4B	L4	OBBA, NHIC	X	X	X	X	X
Ammodramus savannarum	Grasshopper Sparrow	SC	SC	S4B	L2	OBBA	X	X	X		
Podiceps auritus	Horned Grebe	---	SC	S1B,S4N	---	CBC	X	X	X	X	X
Falco peregrinus	Peregrine Falcon	SC	SC	S3B	L4	CBC	X	X	X	X	X
Euphagus carolinus	Rusty Blackbird	SC	SC	S4B	---	CBC	X	X	X	X	X

HERPETOZOA											
Lampropeltis triangulum	Milksnake	SC	Not at Risk	S3	L3	Parks Canada	X	X	X	X	X
Graptemys geographica	Northern Map Turtle	SC	SC	S3	L2	OHA	X	X	X	X	X
Chelydra serpentina	Snapping Turtle	SC	SC	S3	L3	OHA, NHIC	X	X	X	X	X
LEPIDOPTERA											
Danaus plexippus	Monarch	SC	SC	S2N,S4B	---	OBA, Parks Canada	X	X	X	X	X
MOLLUSCS											
Ligumia nasuta	Eastern Pondmussel	SC	SC	S1	---	DFO	X	X		X	

<sup>1</sup>Federal Species at Risk Act (SC= Special Concern, THR= Threatened; END= Endangered); <sup>2</sup>Ontario Endangered Species Act (SC= Special Concern); <sup>3</sup>Ontario SRank; S5 = secure; S4= apparently secure; S3 = vulnerable; S2 = imperiled; S1 = critically imperiled; SX = Extirpated; SH = Possibly Extirpated; SNA = non-native or exotic species to Ontario; <sup>4</sup>Local L-rank; L1 = Species of Regional Conservation Concern, regionally scarce due to either accidental occurrence or extreme sensitivity to human impacts; L2 = Species of Regional Conservation Concern, somewhat more abundant and generally slightly less sensitive than L1 species; L3 = Species of Regional Conservation Concern, generally less sensitive and more abundant than L1 and L2 ranked species; L4 = Species of Urban Concern; occur throughout the region but could show declines if urban impacts are not mitigated effectively; L5 = species that are considered secure throughout the region; L+ = introduced species, not native to the Toronto region; LX = extirpated species; species not recorded in the region in the past 10 years <sup>5</sup>Information sources include: NHIC = Natural Heritage Information Center; CBC = Christmas Bird Count; OBBA = Ontario Breeding Bird Atlas; OHA = Ontario Herpetofaunal Atlas, OBA = Ontario Butterfly Atlas; Parks Canada = Parks Canada, 2018; DFO = Fisheries and Oceans Canada; --- denotes no information or not applicable.

## Species Risk

For the purposes of this memo, SAR considered are those designated as Threatened or Endangered under the provincial Endangered Species Act, 2007, and/or designated as Threatened or Endangered under the federal Species at Risk Act, 2002.

Based on background review, a number of SAR have the potential to occur within the vicinity of the Project Focus Areas (see **Table 5** on next page). In addition to the SAR identified in **Table 5**, the Natural Heritage Information Center (NHIC) online mapping identified one Restricted Species record from 2008 in the vicinity of the Stott's and Maxwell's Bridges Project Focus Areas. An information request for details on this Restricted Species record was submitted to the Ministry of Environment Conservation and Parks (MECP) on August 13, 2020. A response is pending at the time of report preparation.

In addition, the Environment and Climate Change Canada (ECCC) SAR database includes Critical Habitat for Bashful Bulrush and Blanding's Turtle within a 10 km by 10 km area which overlaps the Project Focus Areas (2019). However, private lands and infrastructure are generally excluded from Blanding's Turtle Critical Habitat (Parks Canada internal RNUP Blanding's Turtle Critical Habitat Definition document dated January 2015, received from Parks Canada via email on April 7, 2020). Under SARA, critical habitat is defined as "the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species" (ECCC, 2016).

According to the Canadian Species at Risk Public Registry (2011), Bashful Bulrush grows in open-canopied deciduous and mixed forests that have few shrubs in the understory. Because it requires warmth and good drainage, it tends to occur on semi-open to open, steep slopes that face south or southwest. It is usually found in areas where there are occasional natural disturbances.

Blanding's Turtles use a variety of aquatic and terrestrial habitat features. Because of their close relationship with survival and recruitment of individuals as well as some ecological traits of the Blanding's Turtle (e.g., reproductive strategy), nesting and overwintering habitats are addressed [considered] separately from other, more general habitat (ECCC, 2016).

**Table 5: SAR with the Potential to Occur Within the Project Focus Areas**

SCIENTIFIC NAME	COMMON NAME	SARA <sup>1</sup>	ESA <sup>2</sup>	S-RANK <sup>3</sup>	Local Rank (L-rank) <sup>4</sup>	INFO SOURCE <sup>5</sup>	SEWELLS ROAD BRIDGE	MILNE BAILEY BRIDGE	HILLSIDE BRIDGE	STOTT' S BRIDGE	MAXWELL' S BRIDGE
VASCULAR PLANTS											
Juglans cinerea	Butternut	END	END	S3?	L3	Parks Canada	X	X	X	X	X
Trichophorum planifolium	Few-flowered Club-rush /Bashful Bullrush	END	END	S1	---	NHIC	X	X	X	X	X
BIRDS											
Riparia riparia	Bank Swallow	THR	THR	S4B	L3	OBBA, NHIC	X	X	X	X	X
Hirundo rustica	Barn Swallow	THR	THR	S4B	L4	OBBA, NHIC	X	X	X	X	X
Dolichonyx oryzivorus	Bobolink	THR	THR	S4B	L3	OBBA, NHIC, Parks Canada	X	X	X		
Cardellina canadensis	Canada Warbler	THR	SC	S4B	L2	OBBA	X	X	X	X	X
Setophaga cerulea	Cerulean Warbler	END	THR	S3B	LX	NHIC	X	X	X	X	X
Chordeiles minor	Common Nighthawk	THR	SC	S4B	L3	OBBA	X	X	X	X	X
Sturnella magna	Eastern Meadowlark	THR	THR	S4B	L3	OBBA, NHIC, Parks Canada	X	X	X		

SCIENTIFIC NAME	COMMON NAME	SARA <sup>1</sup>	ESA <sup>2</sup>	S-RANK <sup>3</sup>	Local Rank (L-rank) <sup>4</sup>	INFO SOURCE <sup>5</sup>	SEWELLS ROAD BRIDGE	MILNE BAILEY BRIDGE	HILLSIDE BRIDGE	STOTT' S BRIDGE	MAXWELL' S BRIDGE
<i>Ixobrychus exilis</i>	Least Bittern	THR	THR	S4B	L2	OBBA, Parks Canada	X	X	X	X	X
<i>Hylocichla mustelina</i>	Wood Thrush	END	SC	S4B	L3	OBBA, NHIC	X	X	X	X	X
MAMMALS											
<i>Myotis leibii</i>	Eastern Small-footed Myotis	---	END	S2S3	---	MWH	X	X	X	X	X
<i>Myotis lucifugus</i>	Little Brown Myotis	END	END	S4	L4	MWH, Parks Canada	X	X	X	X	X
<i>Myotis septentrionalis</i>	Northern Myotis	END	END	S3	---	MWH, Parks Canada	X	X	X	X	X
<i>Pipistrellus subflavus</i>	Tri-colored Bat	END	END	S3?	---	MWH, Parks Canada	X	X	X	X	X

<sup>1</sup>Federal Species at Risk Act (THR= Threatened, END = Endangered); <sup>2</sup>Ontario Endangered Species Act (SC= Special Concern, THR= Threatened, END = Endangered); <sup>3</sup>Ontario SRank; S5 = secure; S4= apparently secure; S3 = vulnerable; S2 = imperiled; SX = Extirpated; SH = Possibly Extirpated; SNA = non-native or exotic species to Ontario; <sup>4</sup>Local L-rank; L1 = Species of Regional Conservation Concern, regionally scarce due to either accidental occurrence or extreme sensitivity to human impacts; L2 = Species of Regional Conservation Concern, somewhat more abundant and generally slightly less sensitive than L1 species; L3 = Species of Regional Conservation Concern, generally less sensitive and more abundant than L1 and L2 ranked species; L4 = Species of Urban Concern; occur throughout the region but could show declines if urban impacts are not mitigated effectively; L5 = species that are considered secure throughout the region; L+ = introduced species, not native to the Toronto region; LX = extirpated species; species not recorded in the region in the past 10 years; <sup>5</sup>Information sources include: NHIC = Natural Heritage Information Center; OBBA = Ontario Breeding Bird Atlas; OHA = Ontario Herpetofaunal Atlas; Parks Canada = Parks Canada, 2018; MWH = Mammals of the Western Hemisphere v3.0, Nature Serve, released in 2007 and compiled in 2010; --- denotes no information or not applicable.

## Site Investigation Methodology

---

To verify the existing condition of natural areas in the Project Focus Area, Dillon undertook preliminary field investigations within 120 m of each bridge structure on November 13 and 15, 2019, as well as an additional field investigation on July 21, 2020 to capture summer seasonal flora and fauna and confirm vegetation community information.

The following subsections outline Dillon's field survey methodologies. The field investigation Study Areas are shown on **Figures 4a-e**.

### Ecological Land Classification

---

The TRCA conducted ELC following the methods developed by the Ontario Ministry of Natural Resources (Lee et al., 1998; TRCA, 2020c).

In 2019 and 2020 Dillon field-verified the TRCA's ELC data, to confirm and/or update the vegetation community types and boundaries within each Study Area. Similarly to the TRCA, Dillon characterized vegetation communities in the vicinity of each bridge using the ELC system for Southern Ontario (Lee et al., 1998). The ELC field investigations involved identifying the dominant species for each vegetation cover type based on visual estimates of species composition and physical site characteristics. The ELC system methodology recommends that a vegetation community be a minimum of 0.5 ha in size before it is defined.

Through field studies, the presence of both natural and cultural Eco sites was documented within the Project Focus Areas. Generally, soil assessments are conducted as part of the ELC System to assess the soil moisture regime. However, the focus of the site investigation was confirmation of TRCA ELC mapping information, and as such, soil assessments were not completed. Results of ELC surveys are included in **Section 4.0**.

### Stream Assessment

---

A general aquatic stream assessment was completed at the five bridge crossings along the Rouge River and Little Rouge Creek within the Study Areas in November 2019 and July 2020. Information collected during the assessment included (where applicable):

- channel form;
- presence/absence of flow;
- substrate type;
- channel dimensions (e.g., width and depth); and
- riparian vegetation.



This data was used, in part, to determine the overall health and sensitivity of the stream. Results of the stream assessment are included in **Section 4.0**

### 3.3

## **Incidental Wildlife and Wildlife Habitat**

---

Incidental observations of wildlife and/or potential wildlife habitat were noted during the 2019 and 2020 field surveys, including wildlife evidence such as dens, tracks, and scat. The incidental wildlife observations recorded are provided in **Section 4.0**.

## Site Investigation Results

- The results of the site investigation at each bridge Field Study Area measured at 120 m from the bridges are provided in this section of the report. In general, the majority of the TRCA's ELC and dominant vegetation data was found to be accurate within the Study Areas. In areas where there was no TRCA data or inaccurate data, Dillon identified and delineated the ELC communities.
- As noted in **Section 3.0**, aquatic stream assessments were conducted in November 2019 and July 2020. The assessment results at the five bridges and immediate surrounding area observed during the two assessment periods were generally consistent, except for differences in wetted width depth due to time of year and seasonal water level fluctuations. The dates and weather conditions of the November 2019 and July 2020 field surveys Dillon conducted are summarized in **Table 6**.

**Table 6: Survey Weather Conditions**

Date	Structure Surveyed	Survey Type	Air Temp. (oC)	Cloud Cover (%)	Wind <sup>1</sup>	Precipitation
Nov 13	Sewells Road Bridge Milne Bailey Bridge Hillside Bridge	ELC, stream assessment, incidental wildlife and wildlife habitat	-5 to -6	0-90	2-3	none
Nov 15	Stott's Bridge Maxwell's Bridge	ELC, stream assessment, incidental wildlife and wildlife habitat	0	100	3	none
July 21	Sewells Road Bridge Milne Bailey Bridge Hillside Bridge Stott's Bridge Maxwell's Bridge	ELC, stream assessment, incidental wildlife and wildlife habitat	23	10	1	none

<sup>1</sup>Beaufort Wind Scale: 1 = Light air movement, 3-5 km/hour; 2 = Slight breeze, 6-11 km/hour; 3 = Gentle breeze, 12-19 km/hour.

## Ecological Land Classification

The location, type and boundaries of the vegetation communities within the Sewells Road Bridge Field Study Area are shown on **Figure 4a** and summarized in **Table 7** below. Three of the vegetation communities are identified by the TRCA to be of regional concern: Fresh-Moist Bitternut Hickory Deciduous Forest (FOD9-5; L3), Horsetail Mineral Shallow Marsh (MAS2-C; L3), and Flat-stemmed Bluegrass - Forb Open Sand Barren (SBO1-B, L2) (TRCA, 2017).

**Table 7: Sewells Road Bridge Field study area elc communities (TRCA, 2020c)**

ELC Code	ELC Name	Local Rank (L-rank) <sup>1</sup>
BLO1	Mineral Open Bluff	L4
CUM1-b	Exotic Cool-season Grass Graminoid Meadow	L+
CUP1-c	Locust Deciduous Plantation	L+
CUP3-2	White Pine Coniferous Plantation	L5
CUP3-C	White Spruce Coniferous Plantation	L5
CUS1-A1	Native Deciduous Successional Savannah	L5
CUT1-c	Exotic Deciduous Thicket	L+
CUW1-A3	Native Deciduous Successional Woodland	L5
CUW1-b	Exotic Successional Woodland	L+
FOD5-3	Dry-Fresh sugar Maple – Oak Deciduous Forest	L4
FOD6-5	Fresh-Moist Sugar Maple - Hardwood Deciduous Forest	L5
FOD8-1	Fresh-Moist Poplar Deciduous Forest	L5
FOD9-5	Fresh-Moist Bitternut Hickory Deciduous Forest	L3

ELC Code	ELC Name	Local Rank (L-rank) <sup>1</sup>
FOM6-1	Fresh-Moist Sugar Maple - Hemlock Mixed Forest	L4
MAM2-4	Fowl Manna Grass Mineral Meadow Marsh	L4
MAS2-C	Horsetail Mineral Shallow Marsh	L3
OA01	Open Aquatic (unvegetated)	L5
SBO1-B	Flat-stemmed Bluegrass - Forb Open Sand Barren	L2
SWD4-1	Willow Mineral Deciduous Swamp	L4

<sup>1</sup>Local L-rank; L1 = Of regional concern in TRCA jurisdiction due to rarity, stringent habitat needs, and/or threat to habitat; L2 = Of regional concern; typically occurs in high-quality natural areas and under highly specific site conditions; probably at risk in the Toronto area; L3 = of regional concern; restricted in occurrence and/or requires specific site conditions; generally occurs in natural rather than cultural areas. L4 = Generally secure in rural matrix; of conservation concern in the urban matrix; L5 = Generally secure; may be a conservation concern in a few specific situations. Contributes to natural cover. L+ = Community defined by alien species (e.g. Scots pine plantation, buckthorn thicket). Contributes to natural cover at least to some extent.

#### 4.1.2 Stream Assessment

The Rouge River at the Sewells Road Bridge crossing is a permanent river that flows in an easterly direction. Within the river, run habitat was the main habitat type with smaller areas of riffle and pool habitat. Cobble was the dominant substrate with gravel, sand and some detritus present. At the crossing, the mean wetted width and depth was approximately 15 m and 0.3 m, respectively. The bankfull width was approximately 25 m and the mean bankfull depth was approximately 3 m. Banks were generally protected from erosion and the southern bank was observed to be a depositional zone. However, the northern bank downstream of the bridge was observed to be heavily eroded with an exposed steep sandy bank. This bank may provide suitable Bank Swallow habitat.

Cover habitat consisted mainly of cobble with limited in-stream wooded debris and vascular macrophytes. There was some cover provided by overhanging woody debris and the bridge. Limited aquatic vegetation was present, though some algae was observed in-stream. Further, between 1-30% of the river was shaded. The riparian community along the southern bank consisted of primarily meadow before transitioning to a forest beyond 10 m. The northern bank riparian community was forest that extended beyond 30 m. The surrounding land use consisted of Rouge Park, Sewells Road and a nearby residential property.

### Incidental Species Observations

Wildlife species incidentally observed during the field surveys are summarized in **Table 8** on the next page. All species observed are considered apparently secure (S4) or secure (S5) in Ontario. Two of the species observed are of regional conservation concern: Great Blue Heron (*Ardea herodias*) (L3) and Golden-crowned Kinglet (*Regulus satrapa*) (L3).

Two inactive bird nests, identified as potential Barn Swallow nests, were observed on the underside of Sewells Road Bridge. A mammal burrow of an unidentified species was also observed on the north-west embankment of the Bridge (**Figure 4a**).

**Table 8: Sewells Road Bridge Incidental Wildlife Observations**

Scientific Name	Common Name	Federal SARA Registry Status <sup>1</sup>	Ontario ESA Species At Risk List Status <sup>2</sup>	Provincial Conservation Rank (Srank) <sup>3</sup>	Local Rank (L-rank) <sup>4</sup>
BIRDS					
<i>Ardea herodias</i>	Great Blue Heron	---	---	S4	L3
<i>Buteo jamaicensis</i>	Red-tailed Hawk	---	---	S5	L5
<i>Carduelis tristis</i>	American Goldfinch	---	---	S5B	L5
<i>Poecile atricapillus</i>	Black-capped Chickadee	---	---	S5	L5
<i>Cyanocitta cristata</i>	Blue Jay	---	---	S5	L5
<i>Melanerpes carolinus</i>	Red-bellied Woodpecker	---	---	S4	L4
<i>Regulus satrapa</i>	Golden-crowned Kinglet	---	---	S5B	L3

<sup>1</sup>Federal Species at Risk Act (THR= threatened); <sup>2</sup>Ontario Endangered Species Act (THR= threatened, SC= Special Concern); <sup>3</sup>Ontario SRank; S5 = secure; S4= apparently secure; S3 = vulnerable; S2 = imperiled; SX = Extirpated; SH = Possibly Extirpated; SNA = non-native or exotic species to Ontario; <sup>4</sup>Local L-rank; L1 = Species of Regional Conservation Concern, regionally scarce due to either accidental occurrence or extreme sensitivity to human impacts; L2 = Species of Regional Conservation Concern, somewhat more abundant and generally slightly less sensitive than L1 species; L3 = Species of Regional Conservation Concern, generally less sensitive and more abundant than L1 and L2 ranked species; L4 = Species of Urban Concern; occur throughout the region but could show declines if urban impacts are not mitigated effectively; L5 = species that are considered secure throughout the region; L+ = introduced species, not native to the Toronto region; LX = extirpated species; species not recorded in the region in the past 10 years; --- denotes no information or not applicable.

#### 4.1.4

### Wildlife Habitat and Species at Risk

No SAR were observed within the Study Area during the 2019 or 2020 field investigations. However, as described above, two potential inactive Barn Swallow nests were observed on the underside of Sewells Bridge (**Figure 4a**). Barn Swallow is designated as Threatened under the ESA, 2007 and SARA, 2002.

In addition, a high exposed sand bank was identified as having the potential to provide suitable habitat for Bank Swallow, a SAR designated as Threatened under the ESA, 2007 and Threatened under the SARA, 2002. The location of the bank is identified on **Figure 4a**.

Three snag trees which have the potential to provide suitable habitat for SAR bat species were also observed within the Study Area (**Figure 4a**). The bridge abutments were also identified as having the potential to provide suitable snake hibernacula (**Figure 4a**).

## 4.2

### Milne Bailey Bridge

#### 4.2.1

### Ecological Land Classification

The location, type and boundaries of the vegetation communities within the Milne Bailey Bridge Field Study Area are shown on **Figure 4b** and summarized in **Table 9** below. None of the vegetation communities observed are identified by the TRCA to be of regional concern (L1-L3) (TRCA, 2017).

**Table 9: Milne Bailey Bridge Field study area ELC communities (TRCA, 2020c)**

ELC Code	ELC Name	Local Rank (L-rank) <sup>1</sup>
BLO1	Mineral Open Bluff	L4
CUW1-A3	Native Deciduous Successional Woodland	L5
CUW1-b	Exotic Successional Woodland	L+
FOD5-1	Dry-Fresh Sugar Maple Deciduous Forest	L5
FOD5-3	Dry-Fresh Sugar Maple - Oak Deciduous Forest	L4
FOD6-5	Fresh-Moist Sugar Maple - Hardwood Deciduous Forest	L5
FOD7-3	Fresh-Moist Willow Lowland Deciduous Forest	L5
FOM6-1	Fresh-Moist Sugar Maple - Hemlock Mixed Forest	L4

ELC Code	ELC Name	Local Rank (L-rank) <sup>1</sup>
FOM7-1	Fresh-Moist White Cedar - Sugar Maple Mixed Forest	L4
MAM2-2	Common Reed Mineral Meadow Marsh	L+
OA01	Open Aquatic (unvegetated)	L5
SWT2-5	Red Osier Dogwood Mineral Thicket Swamp	L4

<sup>1</sup>Local L-rank; L1 = Of regional concern in TRCA jurisdiction due to rarity, stringent habitat needs, and/or threat to habitat; L2 = Of regional concern; typically occurs in high-quality natural areas and under highly specific site conditions; probably at risk in the Toronto area; L3 = of regional concern; restricted in occurrence and/or requires specific site conditions; generally occurs in natural rather than cultural areas. L4 = Generally secure in rural matrix; of conservation concern in the urban matrix; L5 = Generally secure; may be a conservation concern in a few specific situations. Contributes to natural cover. L+ = Community defined by alien species (e.g. Scots pine plantation, buckthorn thicket). Contributes to natural cover at least to some extent.

#### 4.2.2 Stream Assessment

At the Milne Bailey Bridge crossing, the Rouge River flows in a westerly direction and contained run and riffle habitat types. Cobble was the dominant substrate with gravel, sand and detritus present. Mean wetted width at the crossing was approximately 12 m and mean wetted depth was approximately 0.25 m. The mean bankfull width was approximately 15 m and the mean bankfull depth was approximately 2 m. Both banks appeared to be protected from erosion since they consist of non-erodible material.

Boulders, cobble, woody debris, organic debris and vascular macrophytes provided in-stream cover habitat. Overhanging woody debris and the bridge also provide overhead cover. No aquatic vegetation was observed during the site visit. Approximately 1-30% of the river was shaded by shore cover. Meadows were the dominant community within the riparian zone on both banks before transitioning to a forest community 10 m from the river. Rouge Park and Old Finch Avenue made up the surrounding land use. The Park recreational trail network overlaps the Field Study Area.

#### 4.2.3 Incidental Species Observations

Wildlife species incidentally observed during the 2019 and 2020 field surveys are summarized in **Table 10**. All wildlife observed are considered secure in Ontario (S5) and in the region (L5).

**Table 10: Milne Bailey Bridge Incidental Wildlife Observations**

Scientific Name	Common Name	Federal SARA Registry Status <sup>1</sup>	Ontario ESA Species At Risk List Status <sup>2</sup>	Provincial Conservation Rank (Srank) <sup>3</sup>	Local Rank (L-rank) <sup>4</sup>
BIRDS					
Anas platyrhynchos	Mallard	---	---	S5	L5
Buteo jamaicensis	Red-tailed Hawk	---	---	S5	L5
Picoides pubescens	Downy Woodpecker	---	---	S5	L5

<sup>1</sup>Federal Species at Risk Act (THR= threatened); <sup>2</sup>Ontario Endangered Species Act (THR= threatened, SC= Special Concern); <sup>3</sup>Ontario SRank; S5 = secure; S4= apparently secure; S3 = vulnerable; S2 = imperiled; SX = Extirpated; SH = Possibly Extirpated; SNA = non-native or exotic species to Ontario; <sup>4</sup>Local L-rank; L1 = Species of Regional Conservation Concern, regionally scarce due to either accidental occurrence or extreme sensitivity to human impacts; L2 = Species of Regional Conservation Concern, somewhat more abundant and generally slightly less sensitive than L1 species; L3 = Species of Regional Conservation Concern, generally less sensitive and more abundant than L1 and L2 ranked species; L4 = Species of Urban Concern; occur throughout the region but could show declines if urban impacts are not mitigated effectively; L5 = species that are considered secure throughout the region; L+ = introduced species, not native to the Toronto region; LX = extirpated species; species not recorded in the region in the past 10 years; --- denotes no information or not applicable.

Two potential inactive Barn Swallow nests were also observed on the underside of the Milne Bailey Bridge.

#### 4.2.4 Wildlife Habitat and Species at Risk

No SAR were observed within the Study Area during the 2019 or 2020 field investigations. As described above, two inactive potential Barn Swallow nests were observed on the underside of the Milne Bailey Bridge (**Figure 4b**). In addition, a high exposed sand bank was identified as having the potential to provide suitable habitat for Bank Swallow (**Figure 4b**).

A snag tree, which has the potential to provide suitable habitat for SAR bat species was also observed within the Field Study Area (**Figure 4b**). The bridge abutments were also identified as having the potential to provide suitable snake hibernacula (**Figure 4b**).



## Ecological Land Classification

The location, type and boundaries of the vegetation communities within the Hillside Bridge Field Study Area are shown on **Figure 4c** and summarized in **Table 11** below. One of the vegetation communities was identified by the TRCA to be of regional concern: White Cedar Treed Bluff (BLT1-A; L2) (TRCA, 2017).

**Table 11: Hillside Bridge Field study area ELC communities (TRCA, 2020c)**

ELC Code	ELC Name	Local Rank (L-rank) <sup>1</sup>
BBS1-2B	Willow Shrub Riparian Bar	L4
BLT1-A	White Cedar Treed Bluff	L2
CUP3-A	Restoration Coniferous Plantation	L5
CUP3-H	Mixed Conifer Coniferous Plantation	L5
CVC_1	Business Sector	---
FOC4-1	Fresh-Moist White Cedar Coniferous Forest	L4
FOD4-d	Dry-Fresh Norway Maple Deciduous Forest	L+
FOD5-3	Dry-Fresh Sugar Maple - Oak Deciduous Forest	L4
FOM7-1	Fresh-Moist White Cedar - Sugar Maple Mixed Forest	L4
FOM7-2	Fresh-Moist White Cedar - Hardwood Mixed Forest	L4
OA01	Open Aquatic (unvegetated)	L5
SWM1-1	White Cedar - Hardwood Mineral Mixed Swamp	L4

<sup>1</sup>Local L-rank; L1 = Of regional concern in TRCA jurisdiction due to rarity, stringent habitat needs, and/or threat to habitat; L2 = Of regional concern; typically occurs in high-quality natural areas and under highly specific site conditions; probably at risk in the Toronto area; L3 = of regional concern; restricted in occurrence and/or requires specific site conditions; generally occurs in natural rather than cultural areas. L4 = Generally secure in rural matrix; of conservation concern in the urban matrix; L5 = Generally secure; may be a conservation concern in a few specific situations. Contributes to natural cover. L+ = Community defined by alien species (e.g. Scots pine plantation, buckthorn thicket). Contributes to natural cover at least to some extent.

#### 4.3.2

### Stream Assessment

At the Hillside Bridge Crossing, the Little Rouge Creek flows in an easterly direction. Run habitat was the main habitat type with areas of pools and riffles. Cobble was the dominant substrate with boulder, gravel and sand present. The mean wetted width and depth was approximately 14 m and 0.25 m, respectively. Mean bankfull width and mean bankfull depth was approximately 30 m and 5 m, respectively. Both banks were observed to be erodible as undercutting was present.

In-stream cover habitat included undercut banks, boulders, cobble, in-stream woody debris and organic debris. Overhanging trees and the bridge provided overhead cover. Limited shore cover was present as only 1-30% of the creek was shaded. Aquatic grasses were present at the time of the assessment.

Meadow was the dominant community within the riparian zone on north bank before the vegetation transitioned to a forest community 10 m away from the river. Forest was the dominant community along the southern bank. The surrounding land use consisted of Rouge Park and Meadowvale Road. The Park recreational trail network overlaps the Field Study Area.

#### 4.3.3

### Incidental Species Observations

Wildlife species incidentally observed during the field surveys are summarized on the next page in **Table 12**. All wildlife observed are considered secure in Ontario (S5) and in the region (L5), with the exception of Beaver (*Castor canadensis*) which is considered to be a species of urban concern in the region (L4).

#### 4.3.4

### Wildlife Habitat and Species at Risk

No SAR were observed within the Hillside Bridge Study Area during the 2019 or 2020 field investigations. A single snag tree, which has the potential to provide suitable habitat for SAR bat species was observed within the Study Area (**Figure 4c**). The bridge abutments were also identified as having the potential to provide suitable snake hibernacula (**Figure 4c**).

**Table 12: Hillside Bridge Incidental Wildlife Observations**

Scientific Name	Common Name	Federal SARA Registry Status <sup>1</sup>	Ontario ESA Species At Risk List Status <sup>2</sup>	Provincial Conservation Rank (Srank) <sup>3</sup>	Local Rank (L-rank) <sup>4</sup>
BIRDS					
Poecile atricapillus	Black-capped Chickadee	---	---	S5	L5
Cyanocitta cristata	Blue Jay	---	---	S5	L5
Picoides pubescens	Downy Woodpecker	---	---	S5	L5
MAMMALS					
Castor canadensis	Beaver	---	---	S5	L4

<sup>1</sup>Federal Species at Risk Act (THR= threatened); <sup>2</sup>Ontario Endangered Species Act (THR= threatened, SC= Special Concern); <sup>3</sup>Ontario SRank; S5 = secure; S4= apparently secure; S3 = vulnerable; S2 = imperiled; SX = Extirpated; SH = Possibly Extirpated; SNA = non-native or exotic species to Ontario; <sup>4</sup>Local L-rank; L1 = Species of Regional Conservation Concern, regionally scarce due to either accidental occurrence or extreme sensitivity to human impacts; L2 = Species of Regional Conservation Concern, somewhat more abundant and generally slightly less sensitive than L1 species; L3 = Species of Regional Conservation Concern, generally less sensitive and more abundant than L1 and L2 ranked species; L4 = Species of Urban Concern; occur throughout the region but could show declines if urban impacts are not mitigated effectively; L5 = species that are considered secure throughout the region; L+ = introduced species, not native to the Toronto region; LX = extirpated species; species not recorded in the region in the past 10 years; --- denotes no information or not applicable.

## 4.4 Stott's Bridge

### 4.4.1 Ecological Land Classification

The location, type and boundaries of the vegetation communities within the Stott's Bridge Field Study Area are shown on **Figure 4d** and summarized in **Table 13** below. Two of the vegetation communities are identified by the TRCA to be of regional concern: Reed Canary Grass Riparian Bar (BBO1-3, L3) and Fresh-Moist Cottonwood Tall Treed Woodland (CUW1-A4, L3) (TRCA, 2017).

**Table 13: Hillside Bridge Field study area elc communities (TRCA, 2020c)**

<b>ELC Code</b>	<b>ELC Name</b>	<b>Local Rank (L-rank)<sup>1</sup></b>
BBO1-3	Reed Canary Grass Riparian Bar	L3
BLO1	Mineral Open Bluff	L4
CUM1-A	Native Forb Meadow	L5
CUM1-c	Exotic Forb Meadow	L+
CUP3-1	Red Pine Coniferous Plantation	L5
CUP3-2	White Pine Coniferous Plantation	L5
CUW1-A4	Fresh-Moist Cottonwood Tall Treed Woodland	L3
CUW1-b	Exotic Successional Woodland	L+
FOC3-1	Fresh-Moist Hemlock Coniferous Forest	L4
FOC4-1	Fresh-Moist White Cedar Coniferous Forest	L4
FOD5-3	Dry-Fresh Sugar Maple - Oak Deciduous Forest	L4
FOD7-3	Fresh-Moist Willow Lowland Deciduous Forest	L5
FOD7-a	Fresh-Moist Manitoba Maple Lowland Deciduous Forest	L5
FOM7-1	Fresh-Moist White Cedar - Sugar Maple Mixed Forest	L4
FOM7-2	Fresh-Moist White Cedar - Hardwood Mixed Forest	L4
OA01	Open Aquatic (unvegetated)	L5

<sup>1</sup>Local L-rank; L1 = Of regional concern in TRCA jurisdiction due to rarity, stringent habitat needs, and/or threat to habitat; L2 = Of regional concern; typically occurs in high-quality natural areas and under highly specific site conditions; probably at risk in the Toronto area; L3 = of regional concern; restricted in occurrence and/or requires specific site conditions; generally occurs in natural rather than cultural areas. L4 = Generally secure in rural matrix; of conservation concern in the urban matrix; L5 = Generally secure; may be a conservation concern in a few specific situations. Contributes to natural cover. L+ = Community defined by alien species (e.g. Scots pine plantation, buckthorn thicket). Contributes to natural cover at least to some extent.

#### 4.4.2

### Stream Assessment

---

The Rouge River at the Stott's Bridge crossing flowed in a southerly direction. Run habitat was the dominant habitat type with areas of pool and riffle habitat. The boulder dominant substrate also contained cobble, gravel and sand. At the crossing, the mean wetted width and depth was approximately 15 m and 0.25 m, respectively. The bankfull width was approximately 20 m and the mean bankfull depth was approximately 2 m. In general, the banks were protected with non-erodible material. North of the bridge, the eastern bank was heavily eroded with a steep exposed sandy bank. This bank may provide suitable Bank Swallow habitat.

In-stream cover was dominated by boulders. Cobble, in-stream woody debris and organic debris were also present. Overhanging woody debris and the bridge provided overhead cover. No aquatic vegetation was observed during the assessment and approximately 1-30% of the river was shaded. Along the western bank, meadow was the dominant riparian community before transitioning to a forest community approximately 10 m away from the river. No riparian community was present along the eastern bank on the north side of the bridge, but a forest community occurred approximately 10 m to 20 m from the toe of slope. Surrounding land use consisted of Rouge Park and Twyn Rivers Drive.

#### 4.4.3

### Incidental Species Observations

---

No species were incidentally observed within the Stott's Bridge Field Study Area during the 2019 or 2020 field investigations.

#### 4.4.4

### Wildlife Habitat and Species at Risk

---

No SAR were observed within the Stott's Bridge Field Study Area during the 2019 or 2020 site investigations. An exposed sand bank north of Stott's Bridge was identified as having the potential to provide suitable habitat to Bank Swallow. The location of the bank is shown on **Figure 4d**. A single snag tree, which has the potential to provide suitable habitat for SAR bat species was observed within the Field Study Area. The bridge abutments were also identified as having the potential to provide suitable snake hibernacula (**Figure 4d**).

## Ecological Land Classification

The location, type and boundaries of the vegetation communities within the Maxwell's Bridge Field Study Area are shown on **Figure 4e** and summarized in **Table 14** below. One of the vegetation communities was identified by the TRCA to be of regional concern: White Cedar Treed Bluff (BLT1-A, L2) (TRCA, 2017).

**Table 14: Hillside Bridge study area elc communities (TRCA, 2020c)**

ELC Code	ELC Name	Local Rank (L-rank) <sup>1</sup>
BBS1-2B	Willow Shrub Riparian Bar	L4
BLT1-A	White Cedar Treed Bluff	L2
CUM1-b	Exotic Cool-season Grass Graminoid Meadow	L+
CUP3-A	Restoration Coniferous Plantation	L5
CUS1-A1	Native Deciduous Successional Savannah	L5
CUS1-b	Exotic Successional Savannah	L+
CUT1-A2	Native Mixed Sapling Regeneration Thicket	L5
CUW1-A3	Native Deciduous Successional Woodland	L5
FOC4-1	Fresh-Moist White Cedar Coniferous Forest	L4
FOD5-3	Dry-Fresh Sugar Maple - Oak Deciduous Forest	L4
FOD6-5	Fresh-Moist Sugar Maple - Hardwood Deciduous Forest	L5
FOM6-1	Fresh-Moist Sugar Maple - Hemlock Mixed Forest	L4
FOM7-1	Fresh-Moist White Cedar - Sugar Maple Mixed Forest	L4
FOM7-2	Fresh-Moist White Cedar - Hardwood Mixed Forest	L4

ELC Code	ELC Name	Local Rank (L-rank) <sup>1</sup>
MAM2-2	Common Reed Mineral Meadow Marsh	L+
OA01	Open Aquatic (unvegetated)	L5
SWD2-2	Red (Green) Ash Mineral Deciduous Swamp	L4

<sup>1</sup>Local L-rank; L1 = Of regional concern in TRCA jurisdiction due to rarity, stringent habitat needs, and/or threat to habitat; L2 = Of regional concern; typically occurs in high-quality natural areas and under highly specific site conditions; probably at risk in the Toronto area; L3 = of regional concern; restricted in occurrence and/or requires specific site conditions; generally occurs in natural rather than cultural areas. L4 = Generally secure in rural matrix; of conservation concern in the urban matrix; L5 = Generally secure; may be a conservation concern in a few specific situations. Contributes to natural cover. L+ = Community defined by alien species (e.g. Scots pine plantation, buckthorn thicket). Contributes to natural cover at least to some extent.

#### 4.5.2 Stream Assessment

The Little Rouge Creek, at the Maxwell's Bridge crossing flows in an easterly direction. Run habitat was dominant with areas of riffle and pool habitat. Cobble was the dominant substrate with boulder, gravel, sand and detritus present. The mean wetted width was approximately 12 m while the mean wetted depth was 0.25 m. The mean bankfull width and depth was approximately 15 m and 1.5 m, respectively. The south bank was considered vulnerable to erosion as it was undercut, while the northern bank was observed to be a depositional zone.

In-stream habitat was mostly provided by cobble though undercut banks, boulders, in-stream and overhanging woody debris as well as organic debris also provided in-stream cover. Limited shore cover was present as only 1-30% of the creek was shaded. No aquatic vegetation was observed during the assessment. Meadow was the dominant riparian vegetation along the northern bank before it transitioned to a forest community approximately 10 m away from the creek. Forest was the dominant riparian community along the southern bank.

#### 4.5.3 Incidental Species Observations

Wildlife species incidentally observed during the 2019 and 2020 field surveys are summarized in **Table 15**. All wildlife species observed are considered apparently secure (S4) or secure (S5) in Ontario. One of the species observed, Golden-crowned Kinglet (*Regulus satrapa*), is of regional conservation concern (L3).

**Table 15: Maxwell's Bridge Incidental Wildlife Observations**

Scientific Name	Common Name	Federal SARA Registry Status <sup>1</sup>	Ontario ESA Species At Risk List Status <sup>2</sup>	Provincial Conservation Rank (Srank) <sup>3</sup>	Local Rank (L-rank) <sup>4</sup>
BIRDS					
<i>Buteo jamaicensis</i>	Red-tailed Hawk	---	---	S5	L5
<i>Cardinalis cardinalis</i>	Northern Cardinal	---	---	S5	L5
<i>Megaceryle alcyon</i>	Belted Kingfisher	---	---	S4B	L4
<i>Regulus satrapa</i>	Golden-crowned Kinglet	---	---	S5B	L3
MAMMALS					
<i>Odocoileus virginianus</i>	White-tailed Deer	---	---	S5	L4
<i>Procyon lotor</i>	Northern Raccoon	---	---	S5	L5

<sup>1</sup>Federal Species at Risk Act (THR= threatened); <sup>2</sup>Ontario Endangered Species Act (THR= threatened, SC= Special Concern); <sup>3</sup>Ontario SRank; S5 = secure; S4= apparently secure; S3 = vulnerable; S2 = imperiled; SX = Extirpated; SH = Possibly Extirpated; SNA = non-native or exotic species to Ontario; <sup>4</sup>Local L-rank; L1 = Species of Regional Conservation Concern, regionally scarce due to either accidental occurrence or extreme sensitivity to human impacts; L2 = Species of Regional Conservation Concern, somewhat more abundant and generally slightly less sensitive than L1 species; L3 = Species of Regional Conservation Concern, generally less sensitive and more abundant than L1 and L2 ranked species; L4 = Species of Urban Concern; occur throughout the region but could show declines if urban impacts are not mitigated effectively; L5 = species that are considered secure throughout the region; L+ = introduced species, not native to the Toronto region; LX = extirpated species; species not recorded in the region in the past 10 years; --- denotes no information or not applicable.

#### 4.5.4 Wildlife Habitat and Species at Risk

No SAR were observed within the Maxwell Bridge Study Area during the 2019 or 2020 field investigations. A single snag tree, which has the potential to provide suitable habitat for SAR bat species was observed within the Study Area (**Figure 4e**). The bridge abutments were also identified as having the potential to provide suitable snake hibernacula (**Figure 4e**).



## Summary and Recommended Next Steps

The Project Focus Areas, and specifically the Field Study Areas, contain a variety of natural features (e.g. wetlands, woodlands, aquatic open water habitat, etc.) associated with observed natural and cultural vegetation communities. Based on their range, known occurrences, and/or the vegetation communities within the Project Focus Areas, several SAR protected under the ESA, 2007 and/or SARA, 2002 may also occur in the vicinity of the bridges (**Table 5**). As noted in **Section 2.0**, ECCC data also identifies Critical Habitat for Bashful Bulrush and Blanding's Turtle within a 10 km by 10 km area which overlaps the Project Focus Areas (2019). Although no SAR occurrences were observed during the 2019 and 2020 field investigations, potential habitat for the following SAR identified during the background review was observed:

- Bashful Bulrush;
- Bank Swallow;
- Barn Swallow;
- Blanding's Turtle;
- Eastern Small-footed Myotis;
- Little Brown Myotis;
- Northern Myotis; and
- Tri-colored Bat.

Potential impacts to SAR and their habitat should be reviewed once the extent of the bridge works have been confirmed during the design phase. Depending on the nature and extent of work proposed, targeted surveys may be required to confirm presence of these species and identify if permitting, approvals or regulatory registrations (e.g., Notice of Activity registration under Ontario Regulation 242/08) under the ESA, 2007 are required. It is recommended that if permitting and approvals are required, the process be initiated through consultation with regulatory agencies such as MECP as early as possible, as timelines for permitting and approvals can potentially affect the project delivery schedule. In addition, potential impacts to SCC should be reviewed once the extent of the bridge works have been confirmed. Targeted surveys to confirm presence of SCC within the project area of impact may be required.

Works within lands regulated by the TRCA (e.g., wetlands, watercourses, steep slopes and other natural hazardous areas) will require a permit under Ontario Regulation 166/06: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses.

In addition, as identified by Park Canada via email correspondence on April 7, 2020, if work is required on federal lands, the following is required:

1. Parks Canada requires an environmental impact analysis (EIA) developed by Parks Canada under the Parks Canada Act to fulfill its requirements as a federal land manager under the Canadian Environmental Assessment Act, 2012 (S.C. 2012, c. 19, s. 52) as well as its legal and mandated obligations to protect Canada's natural and cultural heritage. As a result of this EIA, additional mitigations may be required. This EIS document will provide the relevant information regarding Blanding's Turtle and other federally regulated SAR individuals or critical habitat;
2. There will additionally be requirements for archaeological assessment on Federal lands;
3. Parks Canada review of proposed works occurs at the 30% and 60% design, and the Parks Canada assessment is completed prior to 90%;
4. Parks Canada is responsible for issuing a SARA, 2002 permit, if required; and
5. Following completion of the Parks Canada Impact Assessment, a Letter of Permission to conduct the work is issued. The letter describes the conditions of work, including adherence to mitigation measures to be followed.

Once the extent of the proposed bridge improvement/rehabilitation or replacement works are known, a Terms of Reference to direct the EIA is recommended in order to direct future natural heritage studies and evaluate the potential impacts of the bridge works to the terrestrial and aquatic natural features and their functions. At that time, detailed mitigation measures can also be developed for inclusion in the EIA and subsequent bridge construction tender contract documentation.

## References

- Canadian Species at Risk Public Registry. 2011. Bashfull Bullrush. Retrieved from [https://wildlife-species.canada.ca/species-risk-registry/species/speciesDetails\\_e.cfm?sid=250](https://wildlife-species.canada.ca/species-risk-registry/species/speciesDetails_e.cfm?sid=250)
- Crins, William J., Paul A. Gray, Peter W.C. Uhlig, and Monique C. Wester (2009). The Ecosystems of Ontario, Part I: Ecozones and Ecoregions. Ontario Ministry of Natural Resources, Peterborough Ontario, Inventory, Monitoring and Assessment, SIB TER IMA TR- 01, 71pp.
- Environment and Climate Change Canada. 2019. Critical Habitat - Species at risk - Canada. Retrieved from <https://open.canada.ca/data/en/dataset/47caa405-be2b-4e9e-8f53-c478ade2ca74>
- Environment Canada. 2016. Recovery Strategy for the Blanding's Turtle (*Emydoidea blandingii*), Great Lakes / St. Lawrence population, in Canada [Proposed]. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. vii+ 49 pp.
- Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. Ecological Land Classification for Southern Ontario: First Approximation and Its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.
- Ministry of Natural Resources and Forestry (MNRF). 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E. Retrieved from <https://www.ontario.ca/document/significant-wildlife-habitat-ecoregional-criteria-schedules-ecoregion-7e>
- Ministry of Natural Resources and Forestry (MNRF). 2000. Significant Wildlife Habitat Technical Guide. Retrieved from <https://www.ontario.ca/document/guide-significant-wildlife-habitat>
- Parks Canada. 2019. Rouge National Urban Park Management Plan. Retrieved from <https://www.pc.gc.ca/en/pn-np/on/rouge/info/gestion-management/gestion-management-2019>
- Parks Canada. 2018. Rouge National Urban Park Species at Risk. Accessed March 30, 2020. Retrieved from <https://www.pc.gc.ca/en/pn-np/on/rouge/nature/conservation/espece-species>
- Fisheries and Oceans Canada. 2024. Aquatic Species at Risk Map. Accessed June 21, 2024. Retrieved from <https://www.dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html>
- Rouge National Urban Park Act (S.C. 2015, c. 10). Retrieved from <https://laws-lois.justice.gc.ca/eng/acts/R-8.55/>
- Toronto and Region Conservation Authority (TRCA). (2024). Regional Watershed Monitoring Program Fish Community Data. Retrieved from <https://data.trca.ca/dataset/rwmp-fish-community-data>
- Toronto and Region Conservation Authority (TRCA). (2020a). Highland Creek. Accessed April 3, 2020. Retrieved from <https://trca.ca/conservation/watershed-management/highland-creek/>
- Toronto and Region Conservation Authority (TRCA). (2020b). Watershed Features – Rouge River. Accessed April 3, 2020. Retrieved from <https://trca.ca/conservation/watershed-management/rouge-river/watershed-features/>
- Toronto and Region Conservation Authority (TRCA). (2020c). ELC TRCA. Retrieved from <https://data.trca.ca/dataset/elc-trca>

Toronto and Region Conservation Authority (TRCA). (2018a). Highland Creek Watershed Report Card 2018. Retrieved from <https://reportcard.trca.ca/watershed-report-cards/highland-creek/>

Toronto and Region Conservation Authority (TRCA). (2018b). Rouge River Watershed Report Card 2018. Retrieved from <https://reportcard.trca.ca/watershed-report-cards/rouge-river/>

Toronto and Region Conservation Authority (TRCA). 2017. Annual local occurrence and local rank update for 2017: terrestrial species and vegetation communities.

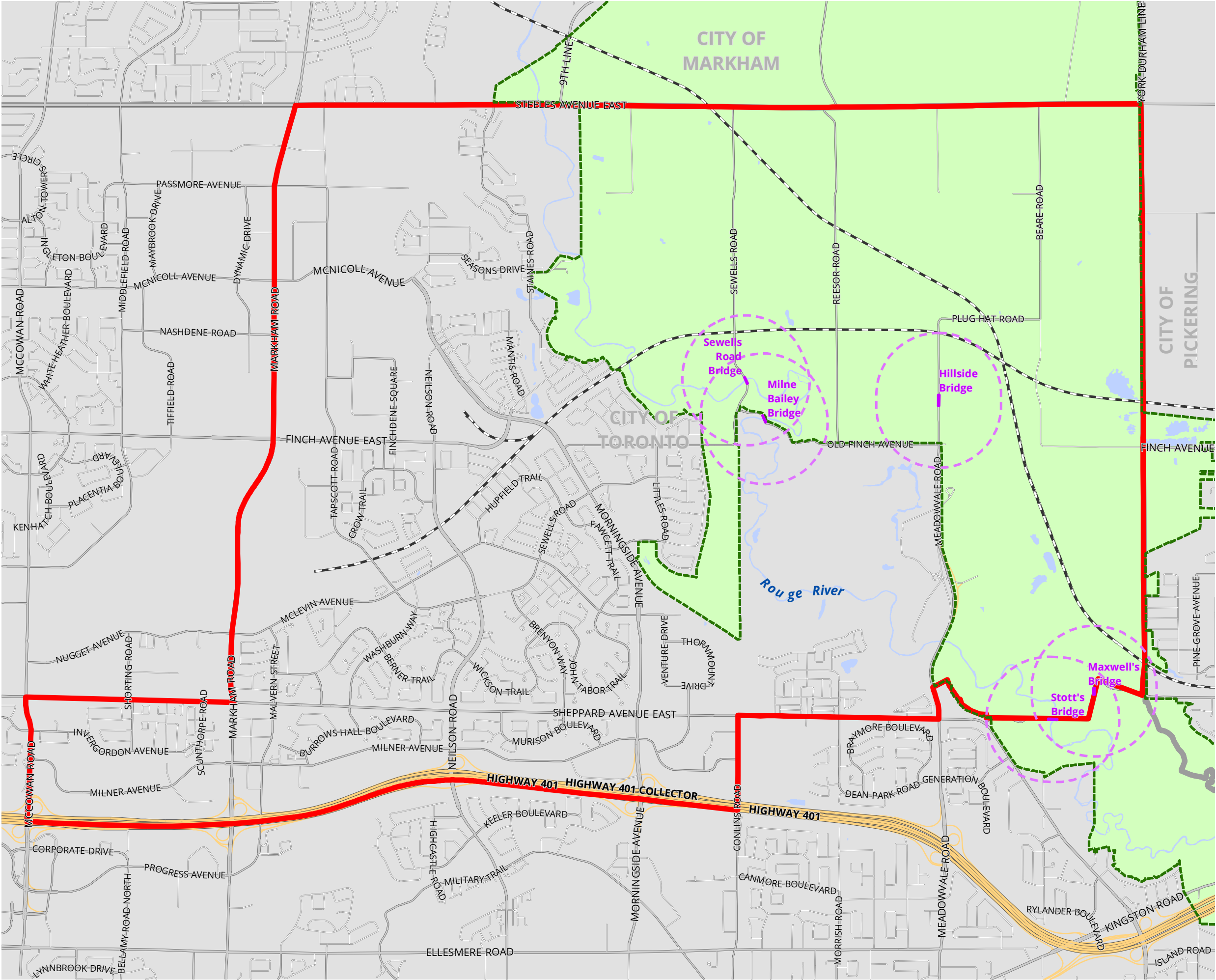
**DILLON CONSULTING LIMITED**

235 Yorkland Boulevard, Suite 800, Toronto, ON M2J 4Y8

TELEPHONE: (416) 229-4646 | FAX: 416-229-4692 ♦

[www.dillon.ca](http://www.dillon.ca)

## Figures



# ROUGE PARK BRIDGES TMP

**FIGURE 1**  
**PROJECT LOCATION**

- Project Study Area
- Rouge National Urban Park Boundary
- Bridge Location
- Project Focus Area
- Railway
- Municipal Boundary
- Water Body

SCALE 1:30,000

0 250 500 1,000 1,500 m

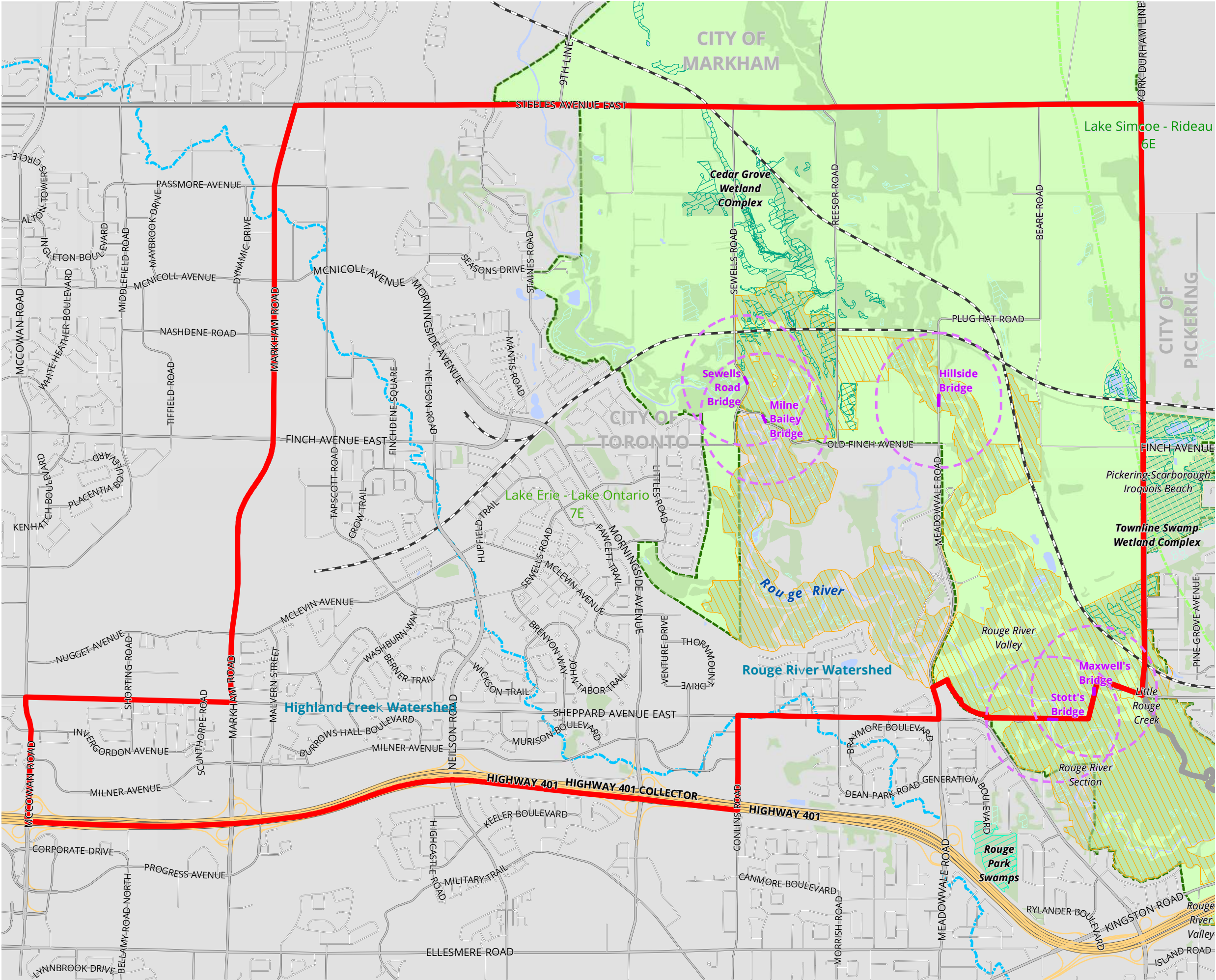
MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNR, CITY OF TORONTO

MAP CREATED BY: GM  
MAP CHECKED BY: DK  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 191924  
DATE: 2020-03-26





ROUGE PARK BRIDGES TMP

FIGURE 7  
PROJECT STUDY AREA NATURAL  
HERITAGE FEATURES

- Project Study Area
- Rouge National Urban Park Boundary
- Bridge Location
- Project Focus Area
- Railway
- Ecoregion
- Quaternary Watershed
- Municipal Boundary
- ANSI, Life Science
- Candidate ANSI, Life Science
- Provincially Significant Wetland
- Evaluated Wetland
- Unevaluated Wetland
- Water Body
- Woodland

SCALE 1:30,000

0 250 500 1,000 1,500 m

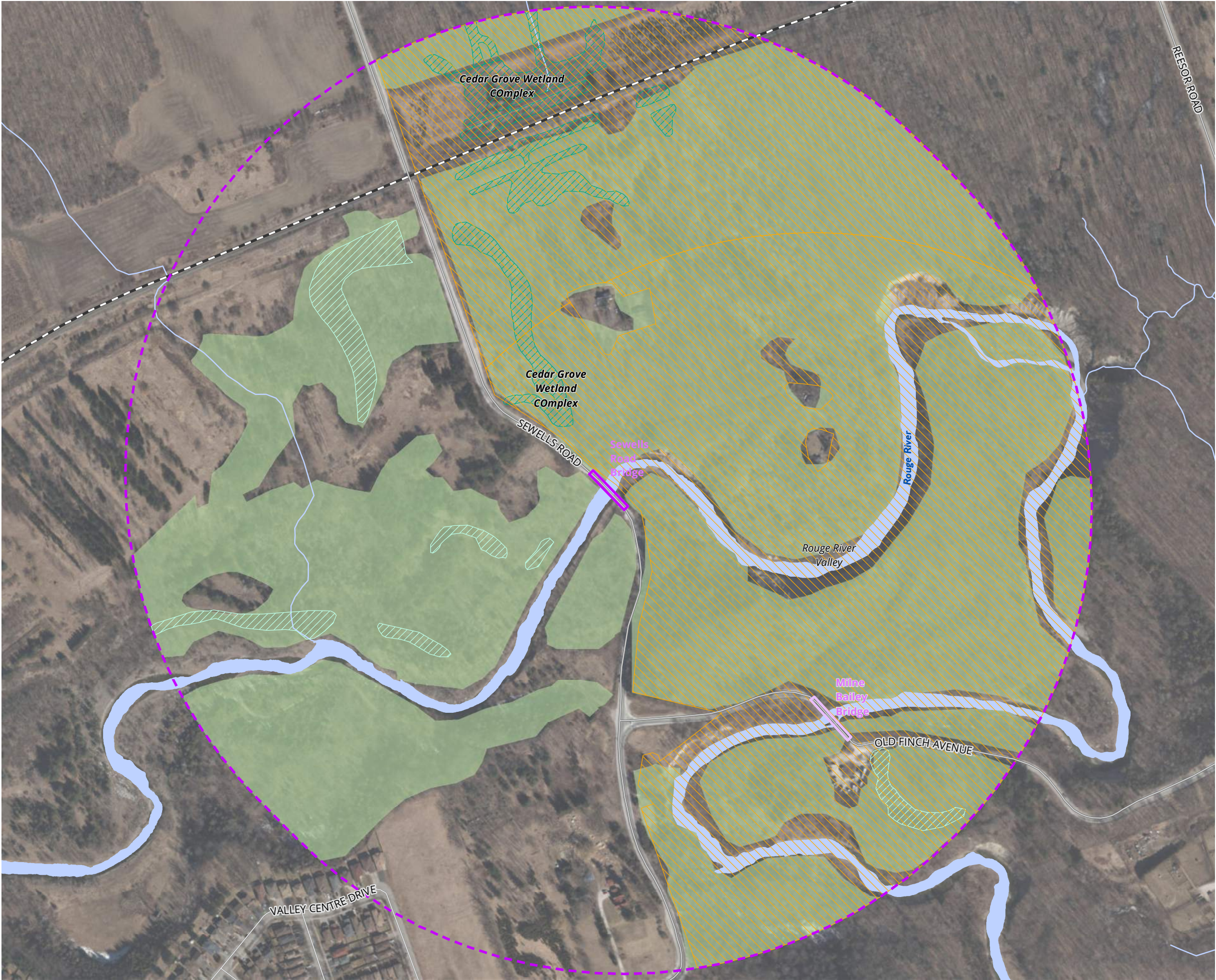
MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNR, CITY OF TORONTO

MAP CREATED BY: GM  
MAP CHECKED BY: DK  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 191924  
DATE: 2020-03-31





FILE LOCATION: I:\GIS\191924 - Rouge Park TMP EA\mxd\Natural Heritage Existing Conditions Memo\Figure 3 Bridge Designated Natural Heritage Features.mxd

# ROUGE PARK BRIDGES TMP

**FIGURE 3a**  
**NATURAL HERITAGE FEATURES**  
**Sewell's Road Bridge**

- Bridge Location
- Project Focus Area
- Railway
- ANSI, Life Science
- Provincially Significant Wetland
- Unevaluated Wetland
- Water Body
- Woodland

SCALE 1:4,000

0 25 50 100 150 m



MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNR, CITY OF TORONTO

MAP CREATED BY: GM  
MAP CHECKED BY: DR  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 191924

DATE: 2020-03-31





ROUGE PARK BRIDGES TMP

FIGURE 3b  
NATURAL HERITAGE FEATURES  
Milne Bailey Bridge

- Bridge Location
- Project Focus Area
- Railway
- ANSI, Life Science
- Provincially Significant Wetland
- Unevaluated Wetland
- Water Body
- Woodland

SCALE 1:4,000  
0 25 50 100 150 m



MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNR, CITY OF TORONTO

MAP CREATED BY: GM  
MAP CHECKED BY: DR  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 191924  
DATE: 2020-03-31





ROUGE PARK BRIDGES TMP

FIGURE 3c  
NATURAL HERITAGE FEATURES  
Hillside Bridge

- Bridge Location
- Project Focus Area
- Railway
- ANSI, Life Science
- Unevaluated Wetland
- Woodland

SCALE 1:4,100  
0 25 50 100 150 m



MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNR, CITY OF TORONTO

MAP CREATED BY: GM  
MAP CHECKED BY: DR  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 191924  
DATE: 2020-03-31





ROUGE PARK BRIDGES TMP

FIGURE 3d  
NATURAL HERITAGE FEATURES  
Stott's Bridge

- Bridge Location
- Project Focus Area
- Hydro Line
- ANSI, Earth Science
- ANSI, Life Science
- Unevaluated Wetland
- Water Body
- Woodland

SCALE 1:3,900

0 25 50 100 150 m



MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNR, CITY OF TORONTO

MAP CREATED BY: GM  
MAP CHECKED BY: DR  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 191924  
DATE: 2020-03-31





ROUGE PARK BRIDGES TMP

FIGURE 3e  
NATURAL HERITAGE FEATURES  
Maxwell's Bridge

- Bridge Location
- Project Focus Area
- Railway
- Hydro Line
- ANSI, Earth Science
- ANSI, Life Science
- Provincially Significant Wetland
- Unevaluated Wetland
- Water Body
- Woodland

SCALE 1:4,000  
0 25 50 100 150 m



MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNR, CITY OF TORONTO  
MAP CREATED BY: GM  
MAP CHECKED BY: DR  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 191924  
DATE: 2020-03-31





## ROUGE PARK BRIDGES TMP

**FIGURE 4A  
SITE INVESTIGATIONS  
SEWELLS ROAD BRIDGE**

- Bridge Location
- Field Study Area (120 m Setback)

### Ecological Land Classification

- BLO1: Mineral Open Bluff
- CUM1-b: Exotic Cool-season Grass Graminoid Meadow
- CUP1-c: Locust Deciduous Plantation
- CUP3-2: White Pine Coniferous Plantation
- CUP3-C: White Spruce Coniferous Plantation
- CUS1-A1: Native Deciduous Successional Savannah
- CUT1-c: Exotic Deciduous Thicket
- CUW1-A3: Native Deciduous Successional Woodland
- CUW1-b: Exotic Successional Woodland
- FOD5-3: Dry-Fresh Sugar Maple - Oak Deciduous Forest
- FOD6-5: Fresh-Moist Sugar Maple - Hardwood Deciduous Forest
- FOD8-1: Fresh-Moist Poplar Deciduous Forest
- FOD9-5: Fresh-Moist Bitternut Hickory Deciduous Forest
- FOM6-1: Fresh-Moist Sugar Maple - Hemlock Mixed Forest
- MAM2-4: Fowl Manna Grass Mineral Meadow Marsh
- MAS2-C: Horsetail Mineral Shallow Marsh
- OAO1: Open Aquatic (unvegetated)
- SBO1-B: Flat-stemmed Bluegrass - Forb Open Sand Barren
- SWD4-1: Willow Mineral Deciduous Swamp

### Wildlife Habitat

- Bat Snag Tree
- Mammal Burrow
- Potential Barn Swallow Nest (Underside of Bridge)
- Potential Bank Swallow Nesting Habitat
- Potential Snake Hibernacula Habitat (Bridge Abutment)

1:1,100  
0 5 10 20 30 m



MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNRF (2020), TRCA, AND CITY OF TORONTO

MAP CREATED BY: GM  
MAP CHECKED BY: DR  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 191924

DATE: 2020-09-08





ROUGE PARK BRIDGES TMP

FIGURE 4B  
SITE INVESTIGATIONS  
MILNE BAILEY BRIDGE

- Bridge Location
- Field Study Area (120 m Setback)
- Ecological Land Classification**
- BLO1: Mineral Open Bluff
  - CUW1-A3: Native Deciduous Successional Woodland
  - CUW1-b: Exotic Successional Woodland
  - FOD5-1: Dry-Fresh Sugar Maple Deciduous Forest
  - FOD5-3: Dry-Fresh Sugar Maple - Oak Deciduous Forest
  - FOD6-5: Fresh-Moist Sugar Maple - Hardwood Deciduous Forest
  - FOD7-3: Fresh-Moist Willow Lowland Deciduous Forest
  - FOM6-1: Fresh-Moist Sugar Maple - Hemlock Mixed Forest
  - FOM7-1: Fresh-Moist White Cedar - Sugar Maple Mixed Forest
  - MAM2-2: Common Reed Mineral Meadow
  - OAO1: Open Aquatic (unvegetated)
  - SWT2-5: Red Osier Dogwood Mineral Thicket Swamp
- Wildlife Habitat**
- Bat Snag Tree
  - Potential Barn Swallow Nest (Underside of Bridge)
  - Potential Bank Swallow Nesting Habitat
  - Potential Snake Hibernacula Habitat (Bridge Abutment)

1:1,100  
0 5 10 20 30 m

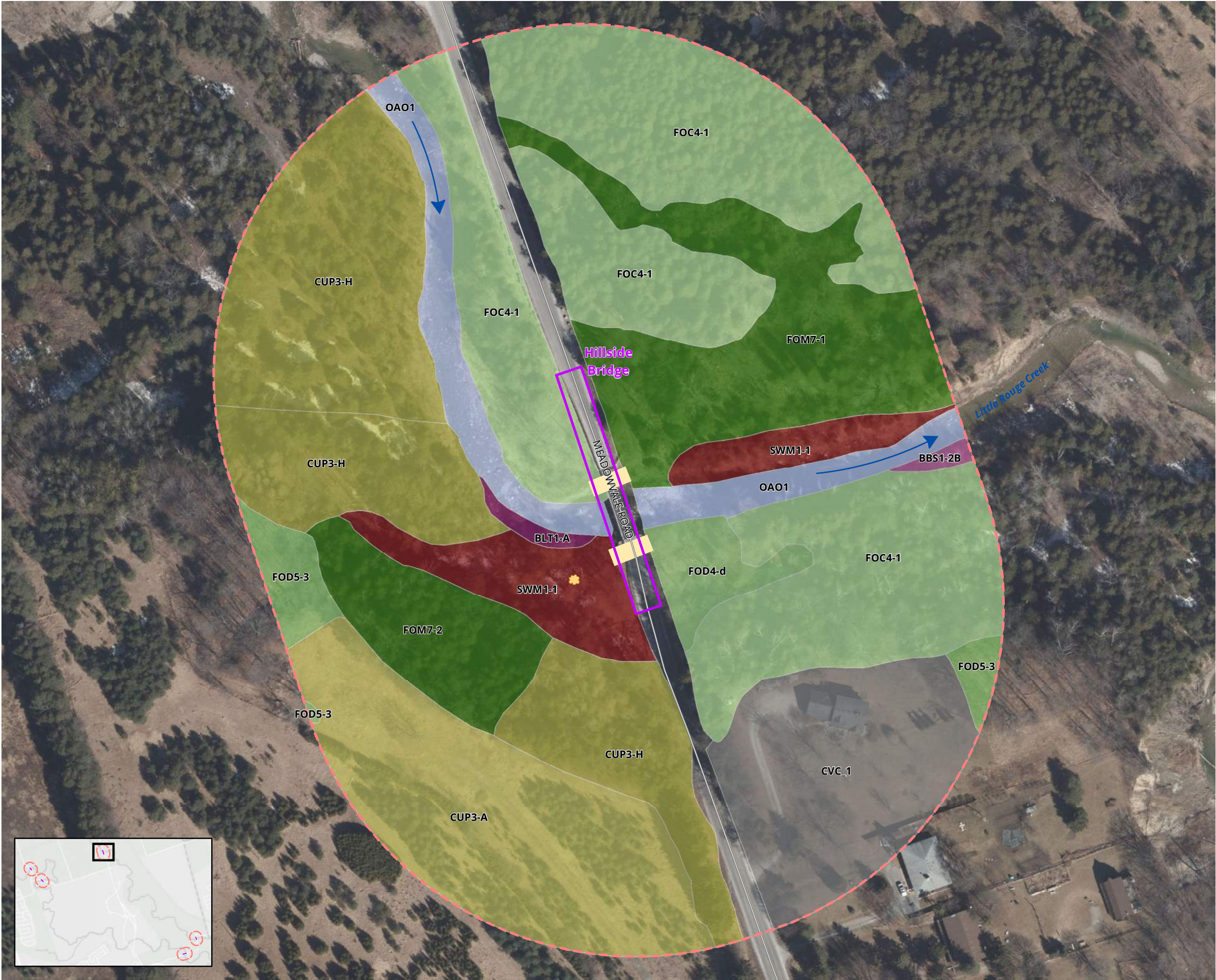


MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNR (2020), TRCA, AND CITY OF TORONTO  
MAP CREATED BY: GM  
MAP CHECKED BY: DR  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 191924  
DATE: 2020-09-08

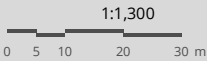




ROUGE PARK BRIDGES TMP

FIGURE 4C  
SITE INVESTIGATIONS  
HILLSIDE BRIDGE

- Bridge Location
- Field Study Area (120 m Setback)
- Ecological Land Classification**
- BBS1-2B: Willow Shrub Riparian Bar
  - BLT1-A: White Cedar Treed Bluff
  - CUP3-A: Restoration Coniferous Plantation
  - CUP3-H: Mixed Conifer Coniferous Plantation
  - CVC\_1: Business Sector
  - FOC4-1: Fresh-Moist White Cedar Coniferous Forest
  - FOD4-d: Dry-Fresh Norway Maple Deciduous Forest
  - FOD5-3: Dry-Fresh Sugar Maple - Oak Deciduous Forest
  - FOM7-1: Fresh-Moist White Cedar - Sugar Maple Mixed Forest
  - FOM7-2: Fresh-Moist White Cedar - Hardwood Mixed Forest
  - OAO1: Open Aquatic (unvegetated)
  - SWM1-1: White Cedar - Hardwood Mineral Mixed Swamp
- Wildlife Habitat**
- Bat Snag Tree
  - Potential Snake Hibernacula Habitat (Bridge Abutment)



MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNR (2020), TRCA, AND CITY OF TORONTO

MAP CREATED BY: GM  
MAP CHECKED BY: DR  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 191924  
DATE: 2020-09-08





ROUGE PARK BRIDGES TMP

FIGURE 4D  
SITE INVESTIGATIONS  
STOTT'S BRIDGE

- Bridge Location
- Field Study Area (120 m Setback)
- Ecological Land Classification**

BBO1-3: Reed Canary Grass Riparian Bar

BLO1: Mineral Open Bluff

CUM1-A: Native Forb Meadow

CUM1-c: Exotic Forb Meadow

CUP3-1: Red Pine Coniferous Plantation

CUP3-2: White Pine Coniferous Plantation

CUW1-A4: Fresh-Moist Cottonwood Tall Treed Woodland

CUW1-b: Exotic Successional Woodland

FOC3-1: Fresh-Moist Hemlock Coniferous Forest

FOC4-1: Fresh-Moist White Cedar Coniferous Forest

FOD5-3: Dry-Fresh Sugar Maple - Oak Deciduous Forest

FOD7-3: Fresh-Moist Willow Lowland Deciduous Forest

FOD7-a: Fresh-Moist Manitoba Maple Lowland Deciduous Forest

FOM7-1: Fresh-Moist White Cedar - Sugar Maple Mixed Forest

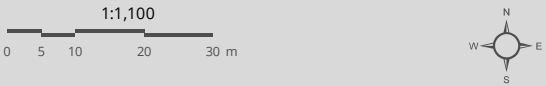
FOM7-2: Fresh-Moist White Cedar - Hardwood Mixed Forest

OA01: Open Aquatic (unvegetated)
- Wildlife Habitat Observations**

Bat Snag Tree

Potential Bank Swallow Nesting Habitat

Potential Snake Hibernacula Habitat (Bridge Abutment)



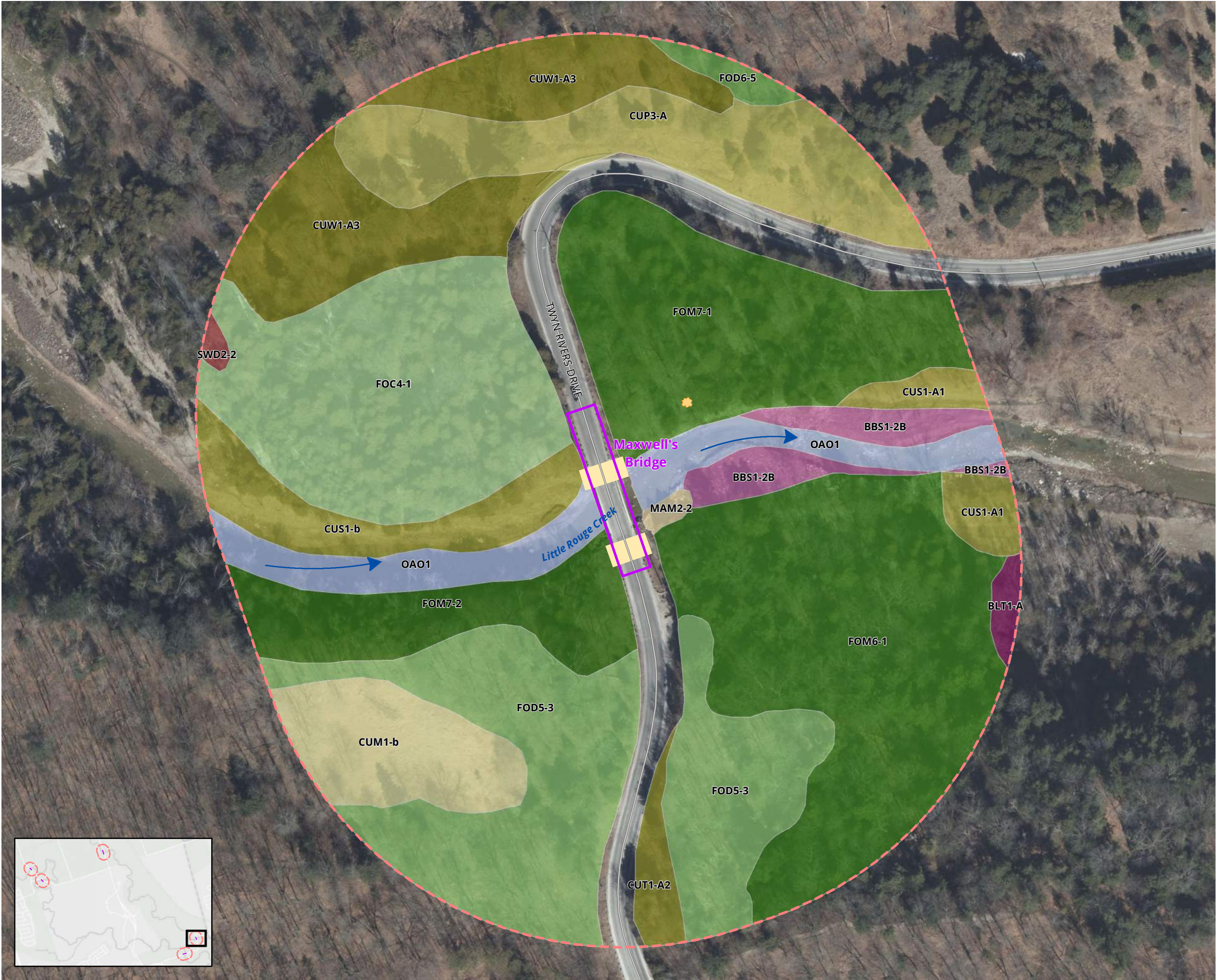
MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNRF (2020), TRCA, AND CITY OF TORONTO

MAP CREATED BY: GM  
MAP CHECKED BY: DR  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 191924  
DATE: 2020-09-08





ROUGE PARK BRIDGES TMP

FIGURE 4E  
SITE INVESTIGATIONS  
MAXWELL'S BRIDGE

- Bridge Location
- Field Study Area (120 m Setback)
- Ecological Land Classification**
- BBS1-2B: Willow Shrub Riparian Bar
  - BLT1-A: White Cedar Treed Bluff
  - CUM1-b: Exotic Cool-season Grass Graminoid Meadow
  - CUP3-A: Restoration Coniferous Plantation
  - CUS1-A1: Native Deciduous Successional Savannah
  - CUS1-b: Exotic Successional Savannah
  - CUT1-A2: Native Mixed Sapling Regeneration Thicket
  - CUW1-A3: Native Deciduous Successional Woodland
  - FOC4-1: Fresh-Moist White Cedar Coniferous Forest
  - FOD5-3: Dry-Fresh Sugar Maple - Oak Deciduous Forest
  - FOD6-5: Fresh-Moist Sugar Maple - Hardwood Deciduous Forest
  - FOM6-1: Fresh-Moist Sugar Maple - Hemlock Mixed Forest
  - FOM7-1: Fresh-Moist White Cedar - Sugar Maple Mixed Forest
  - FOM7-2: Fresh-Moist White Cedar - Hardwood Mixed Forest
  - MAM2-2: Common Reed Mineral Meadow Marsh
  - OA01: Open Aquatic (unvegetated)
  - SWD2-2: Red (Green) Ash Mineral Deciduous Swamp
- Wildlife Habitat Observations**
- Bat Snag Tree
  - Potential Snake Hibernacula Habitat (Bridge Abutment)

1:1,200  
0 5 10 20 30 m



MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNRF (2020), TRCA, AND CITY OF TORONTO

MAP CREATED BY: GM  
MAP CHECKED BY: DR  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 191924  
DATE: 2020-09-08