

3. Existing Conditions

3.1 Technical Environment

3.1.1 Sanitary Sewer Network

The existing sanitary sewer system on Lake Shore Boulevard West collects wastewater from Fleeceline Road and drains to the west and eventually discharges to the Mimico pumping station. The sanitary sewer system on Lake Shore Boulevard West consists of 14 sewer sections, with a total length of approximately 600 m, with diameters ranging from 150 mm to 375 mm. The system varies in age from 18 years for the newest sections to sections which are in excess of 40 years old. The sanitary sewer system on Fleeceline Road consists of 5 sewer sections, with a total length of approximately 223 m, with diameters of 200 mm. The system is approximately 26 to 59 years old.

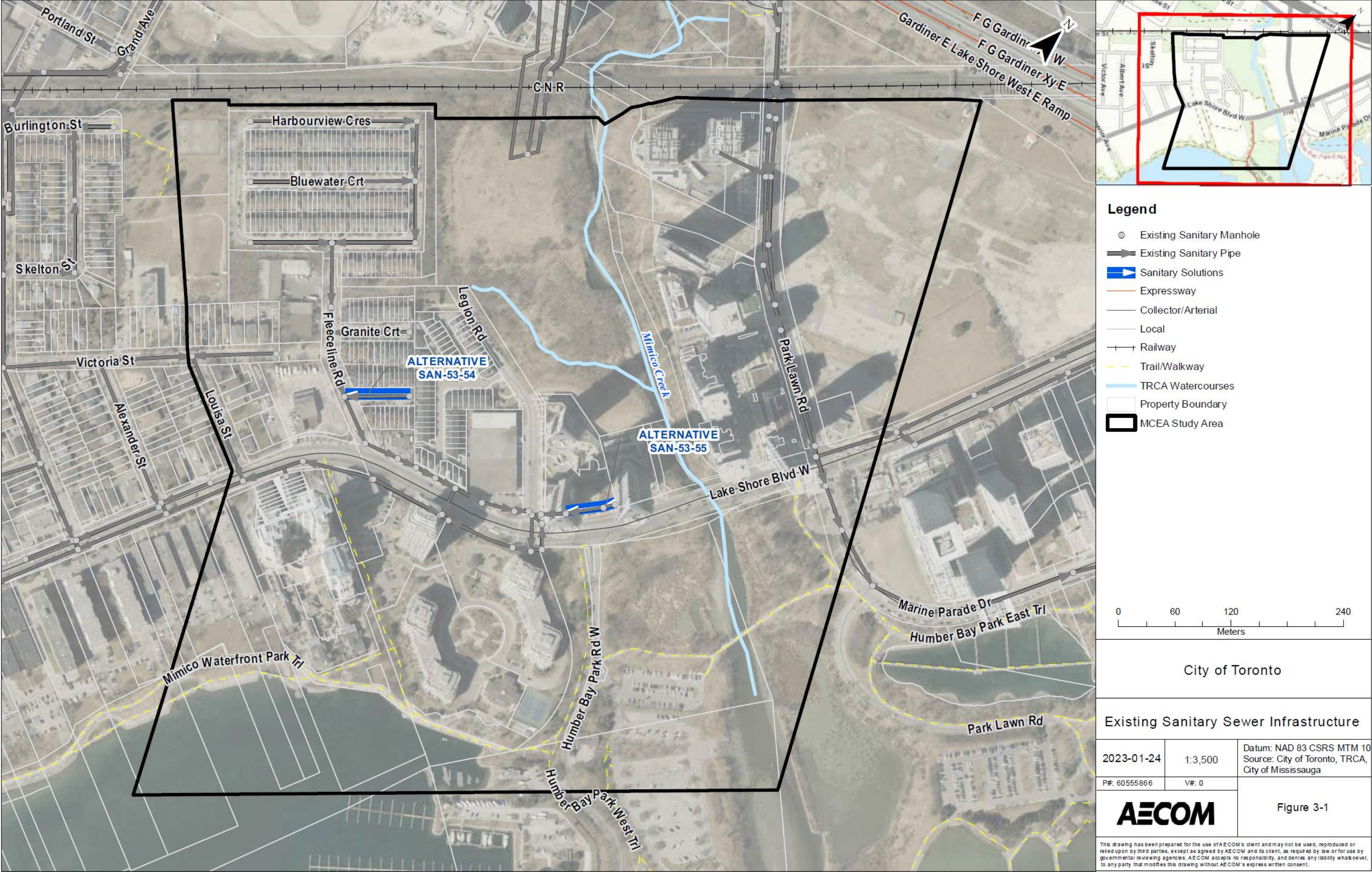
The Area 53 Capacity Assessment Study (**Appendix A, Technical Memorandum 3**) identifies two sanitary sewer solutions under Assignment number 53-33:

- Alternative SAN 53-54: Lower 69 m of 250 mm sanitary sewers on Greystone Court. The existing sewer has adequate hydraulic capacity, but it is shallow pipe
- Alternative SAN 53-55: Lower 54 m of 250 mm sanitary sewers at Beyond The Sea Condominiums property located north of Lake Shore Boulevard West. The existing sewers have adequate hydraulic capacity, but they are shallow pipes

These sanitary works are not reviewed or evaluated within the scope of this Schedule B Municipal Class Environmental Assessment study as they will be within the existing road allowance and are therefore considered Schedule A+ (pre-approved).

The existing sanitary sewer infrastructure within the Study Area, including labels showing the proposed sanitary solutions identified within the Area 53 Capacity Assessment Study (**Appendix A, Technical Memorandum 3**) are shown in **Figure 3-1**.

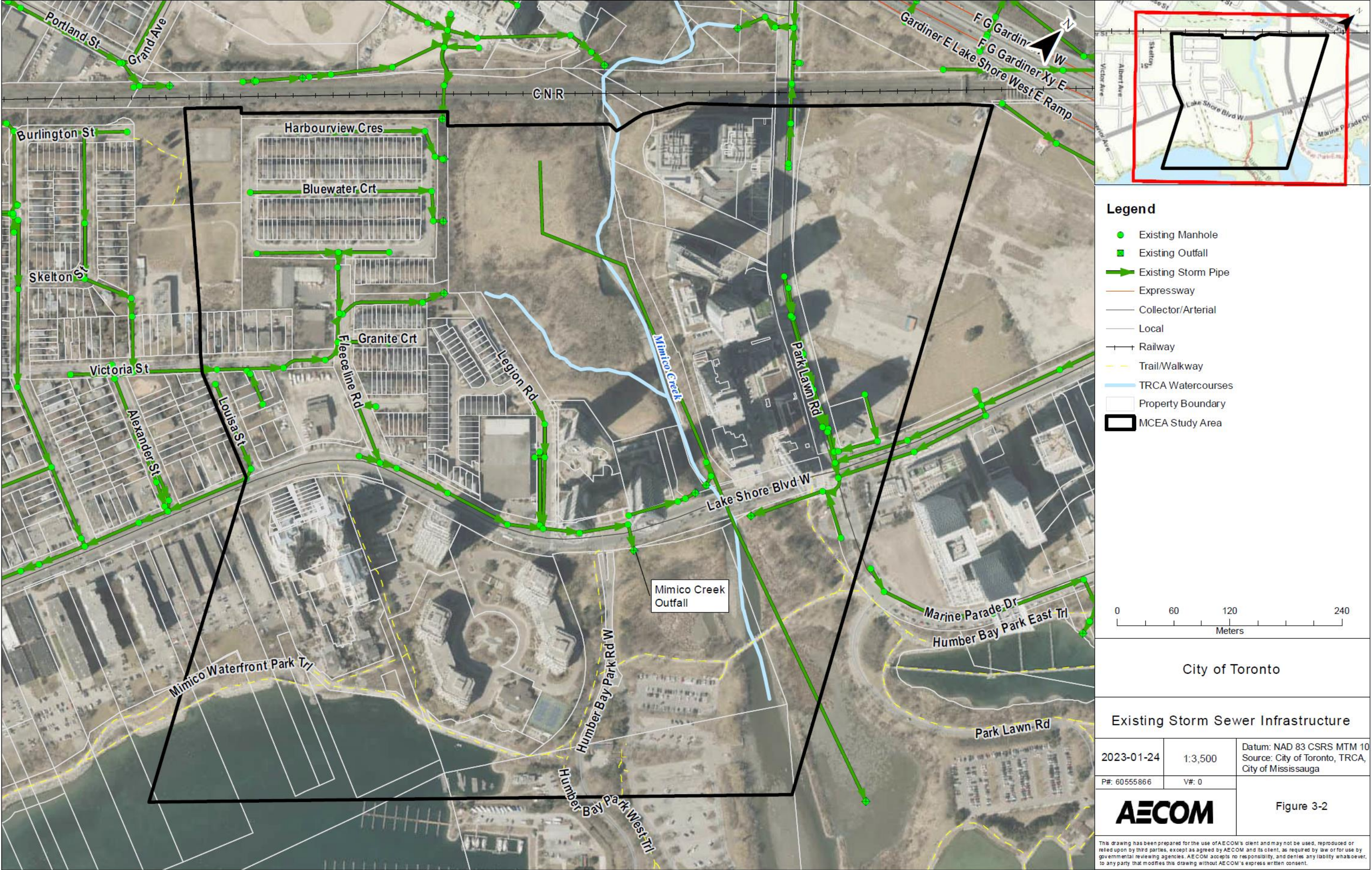
Figure 3-1: Existing Sanitary Sewer Infrastructure



3.1.2 Storm Sewer Network

The existing storm sewer system on Lake Shore Boulevard West collects storm water runoff from Legion Road and Fleeceline Road and drains to the 600 mm outfall at Mimico Creek. The storm sewer system on Lake Shore Boulevard West consists of 8 sewer sections, with a total length of approximately 333 m, with diameters ranging from 225 mm to 600 mm. The system varies in age from 6 years for the newest sections to sections which are in excess of 90 years old. The storm sewer system on Legion Road consists of 3 sewer sections, with a total length of approximately 160 m, with diameters ranging from 300 mm to 375 mm. The system is approximately 10 years old. The existing storm sewer infrastructure is soon approaching its service life and comprised of old clay pipe. The existing storm sewer infrastructure within the Study Area is shown in **Figure 3-2**.

Figure 3-2: Existing Storm Sewer Infrastructure



3.1.3 Overland Drainage System

A number of factors related to flooding have been reviewed as shown in **Figure 3-2**, including:

- Overland flow route (i.e., the amount of surface drainage conveyed on the road during large rainfall events)
- History of locations where flooding has been reported
- Locations of sags in the roadway where overland flow will pond, which are vulnerable to surface and basement flooding. Surface ponding at the intersection of Lake Shore Boulevard West and Legion Road is a key concern because there is an underground parking entrance located at the intersection

The overland paths within the Study Area generally follow the storm sewer flow path. Stormwater along Legion Road, Fleeceline Road, and Louisa Street is conveyed from the north to the south, and ultimately draining to the Mimico Creek outfall. The overland subcatchment that contributes to the existing Mimico Creek outfall is approximately 28 ha.

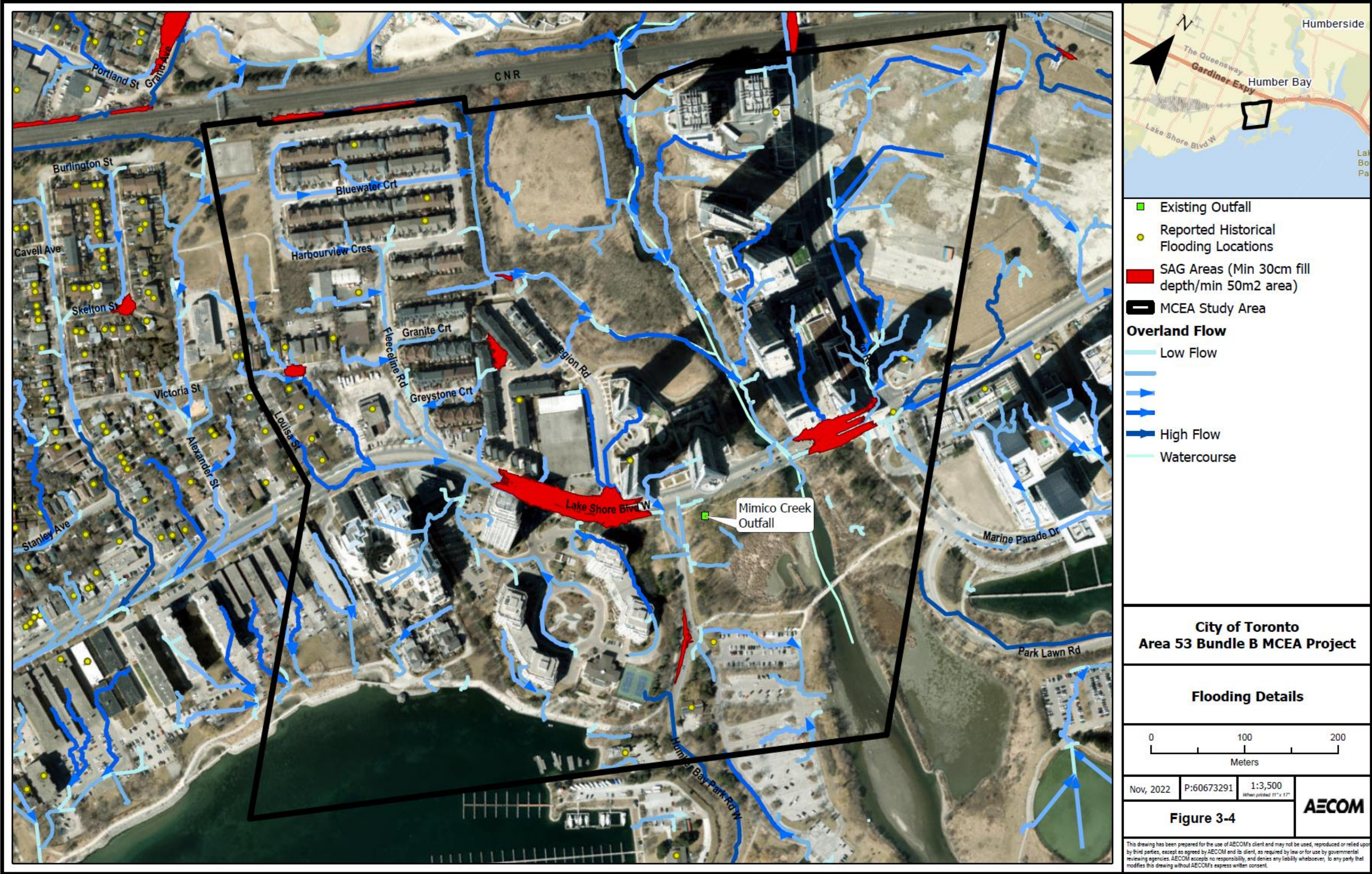
3.1.4 Mimico Creek Outfall

The existing Mimico Creek outfall (OF3101406209) is located within Humber Bay Park. The outfall is a 600 mm polyvinyl chloride (PVC) pipe. The existing outfall does not provide sufficient capacity under the 100-year event. During the 100-year event, the outlet's insufficient capacity would cause the water level in the storm sewers along Legion Road, Fleeceline Road and Lake Shore Boulevard West to surcharge above the ground level, increasing surface flooding and basement flooding risks for the adjacent properties. Refer to **Figure 3-1** for a photo of the existing outfall.

Figure 3-3: Existing Mimico Creek Outfall



Figure 3-4: Flooding Details



3.1.5 Utilities

Utilities within the Study Area include:

- Storm Sewers
- Sanitary Sewers
- Watermains
- Other utilities including Hydro (overhead and underground), Natural Gas and Telecommunications will be confirmed, and any impacts will be coordinated during the design phase of the Project.

3.1.6 Transportation Network

The Study Area is centred on Lake Shore Boulevard West, which is an east-west corridor classified as a Major Arterial. Park Lawn Road is a north-south corridor that forms the eastern boundary of the Study Area. The Study Area also includes numerous smaller, primarily residential streets that are classified as Local Roads, examples of which include Louisa Street which forms the western boundary of the Study Area, as well as Legion Road, Fleeceline Road, Greystone Court and Humber Bay Park Road West.

The Lakeshore West Rail Corridor (CN Rail) line extends west to east and forms the northern boundary of the Study Area.

Toronto Transit Commission's (TTC) also has transit routes that operate within the Study Area. This includes streetcar tracks that run east to west along Lakeshore Shore Boulevard.

According to the City of Toronto Cycling Network Plan (2016), the cycling network and trails plans identifies Lake Shore Boulevard West as Major Corridor Studies and the areas adjacent to Mimico Creek within the Study Area as planned trail network (north of Lake Shore Boulevard West) and existing trails network running along the lakefront through Humber Bay Park.

3.2 Natural Environment

A background information review and field investigations were completed in support of this study. The Natural Environment Study Area is defined as the area within 120 m of the Alternatives Focus Area (**Figure 3-3**). The results of the background information review and field investigations are provided below and support the evaluation of alternative solutions presented in **Section 6**. Refer to **Appendix B** for the complete **Natural Environment Report**.

3.2.1 Background Information

The results of the background information review are summarized below.

3.2.1.1 Designated Natural Features

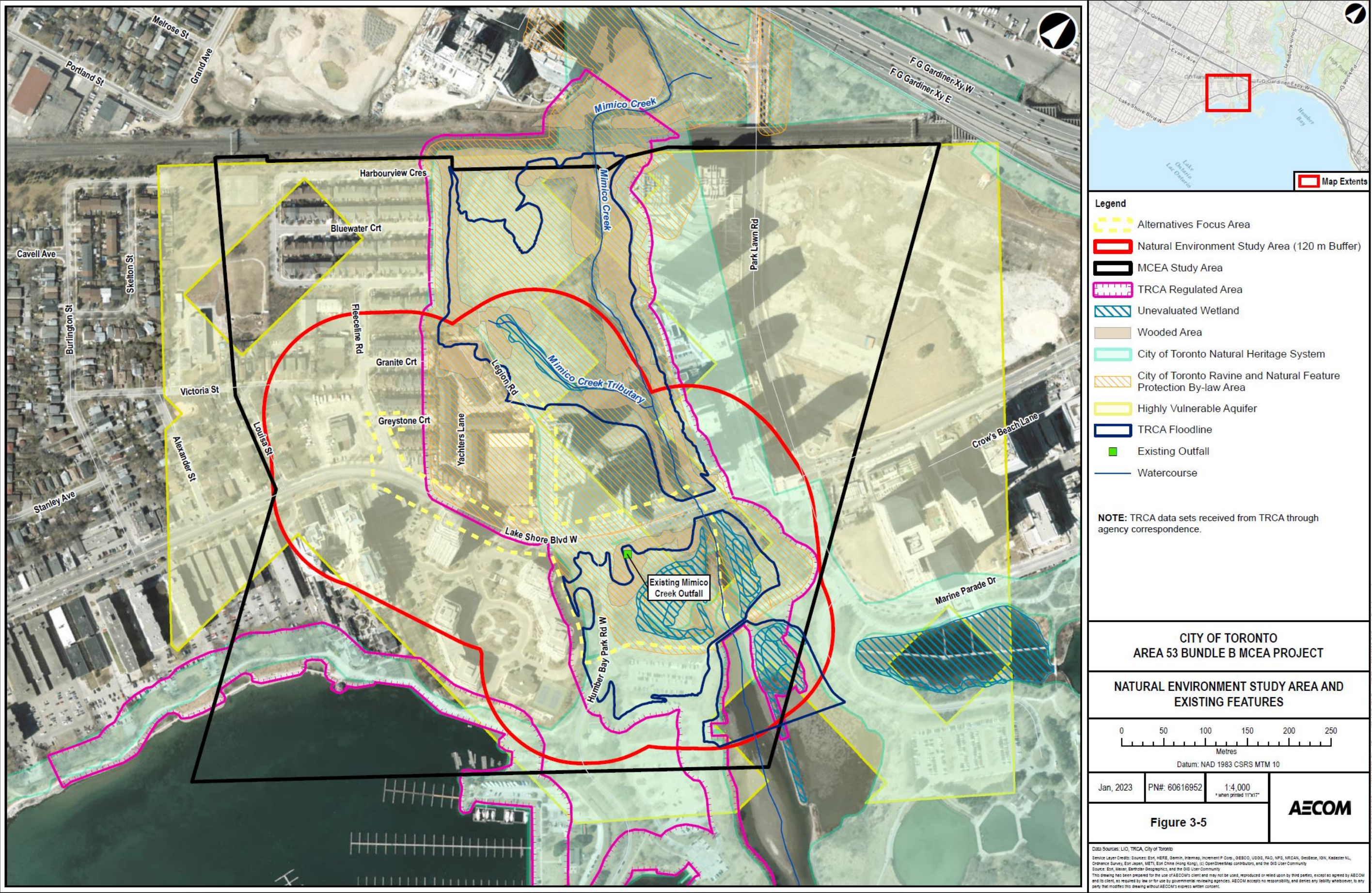
Natural features and areas identified for protection in the Provincial Policy Statement and other legislation are collectively referred to as “Designated Natural Areas”; and include, but are not limited to significant wetlands, Significant Wildlife Habitat, etc. identified by the planning authorities (e.g., province, municipality, conservation authority). Designated Natural Areas identified in the vicinity of the Natural Environment Study Area through the background review included Toronto Region Conservation Authority Regulation Limit, and City of Toronto’s Natural Heritage System and Ravine and Natural Feature Protection By-law area that generally correspond to the Mimico Creek valley as illustrated on **Figure 3-3**. Furthermore, the Natural Environment Study Area overlaps Floodline and Highly Vulnerable Aquifer as indicated by Toronto Region Conservation Authority data obtained through agency correspondence. There are no Areas of Natural or Scientific Interest, significant wetlands or Environmentally Significant Areas within the Natural Environment Study Area; however, unevaluated wetlands occur on either bank of Mimico Creek south of Lake Shore Boulevard West and along the unnamed Mimico Creek Tributary. Furthermore, records of Species at Risk and Species of Conservation Concern were identified within the Natural Environment Study Area through the background information. Candidate (i.e., potential) Significant Wildlife Habitat and Species at Risk habitats are further discussed and refined based on the results of the field investigations in **Sections 3.2.3 and 3.2.4**, respectively

3.2.1.2 Watercourses and Waterbodies

The Natural Environment Study Area is located within the Mimico Creek watershed, under the jurisdiction of the Toronto Region Conservation Authority.

The Natural Environment Study Area encompasses a portion of the main channel of Mimico Creek flowing from the Canadian National Railway north of Lake Shore Boulevard West southward parallel to Park Lawn Road to immediately upstream of the Mimico Creek outlet into Lake Ontario, as well as the entirety of an unnamed Mimico Creek Tributary that originates north of Legion Road and flows eastward to join the main channel of Mimico Creek north of Lake Shore Boulevard West. Watercourses located in the Study Area are shown on **Figure 3-3**.

Figure 3-5: Natural Environment Study Area and Existing Features



3.2.1.3 Fish and Fish Habitat

Publicly available fisheries data from the Land Information Ontario GeoHub database indicate that 33 fish species have been recorded in the main channel of Mimico Creek and 13 fish species have been recorded in the unnamed Mimico Creek Tributary (refer to Tables 3-1 and 3-2 in **Appendix B**). The previously identified fish species in the unnamed Mimico Creek Tributary consisted of common small-bodied forage fish.

The previously identified fish species in Mimico Creek consisted of a mixture of common small-bodied forage fish and large-bodied game fish species such as Brown Trout (*Salmo trutta*), Lake Trout (*Salvelinus namaycush*), Largemouth Bass (*Micropterus salmoides*), Rainbow Trout (*Oncorhynchus mykiss*) and Smallmouth Bass (*Micropterus dolomieu*).

3.2.1.4 Vegetation Communities and Plants

Vegetation communities within the Study Area and their local rank are provided in **Table 3-1**. These Ecological Land Classification (ELC) communities obtained from Toronto Region Conservation Authority were considered during field investigations conducted by AECOM (**Section 3.2.1.4**)

Table 3-1: ELC Communities within Natural Environment Study Area

Ecological Land Classification Code	Ecological Land Classification Name	L-Rank ¹
BBO1-A	Open Riparian Sand/Gravel Bar	L5
FOD7-3	Fresh-Moist Willow Lowland Deciduous Forest	L5
FOD7-a	Fresh-Moist Manitoba Maple Lowland Deciduous Forest	L+
CUP1-A	Restoration Deciduous Plantation	L5
CUP1-f	Siberian Elm Deciduous Plantation	L+
CUP2-G	Ash – Conifer Mixed Plantation	L5
CUP3-b	Austrian Pine Coniferous Plantation	L+
CUT1-4	Grey Dogwood Deciduous Thicket	L4
CUS1-A1	Native Deciduous Successional Savannah	L5
CUW1-b	Exotic Successional Woodland	L+
CUM1-c	Exotic Forb Meadow	L+
SWT2-2	Willow Mineral Thicket Swamp	L4
MAS2-1b	Narrow-leaved Cattail Mineral Shallow Marsh	L+

Ecological Land Classification Code	Ecological Land Classification Name	L-Rank ¹
MAS2-7	Bur-reed Mineral Shallow Marsh	L3
MAS2-9	Forb Mineral Shallow Marsh	L4
MAS2-a	Common Reed Mineral Shallow Marsh	L+
MAM2-2	Reed Canary Grass Mineral Meadow Marsh	L+
OA01-T	Turbid Open Aquatic (disturbed unvegetated)	L+

Notes:

1. Toronto Region Conservation Authority Local Rank
L1-L3 – community of regional conservation concern
L4 – community of conservation concern in urban area
L5 – community not of concern at this time
L+ – community of predominantly introduced species

In addition, Toronto Region Conservation Authority flora records obtained through agency correspondence included local species of regional concern (See Table 3-4 in **Appendix B**). Toronto Region Conservation Authority flora records for the vicinity of the Natural Environment Study Area did not include any Species at Risk or Species of Conservation Concern plants.

3.2.1.5 Species at Risk and Species of Conservation Concern

As shown in **Table 3-2**, Records of 19 Species of Conservation Concern and 21 Species at Risk were identified in the vicinity of the Natural Environment Study Area.

Table 3-2: Species at Risk (SAR) and Species of Conservation Concern (SOCC) Records in the Vicinity of the Natural Environment Study Area

Type	Taxon	Common Name	Scientific Name	S-Rank ¹	ESA Status ²	SARA Status ²	Source ³	Latest Year ⁴
SAR	Fish	American Eel	<i>Anguilla rostrata</i>	S1S2	END	Not on Schedule 1-	NHIC (17PJ2230), LIO	N/A
SAR	Fish	Redside Dace	<i>Clinostomus elongatus</i>	S1	END	END	NHIC (17PJ2230), LIO	N/A
SAR	Fish	Shortnose Cisco	<i>Coregonus reighardi</i>	SH	END	END	DFO	N/A
SAR	Bird	Acadian Flycatcher	<i>Empidonax virescens</i>	S2S3B	THR	END	OBBA	2001-2005
SAR	Bird	Bank Swallow	<i>Riparia riparia</i>	S4B	THR	THR	OBBA, iNat	2001-2005
SAR	Bird	Barn Swallow	<i>Hirundo rustica</i>	S5B	THR	THR	NHIC, OBBA, eBird, iNat	2022
SAR	Bird	Bobolink	<i>Dolichonyx oryzivorus</i>	S4B	END	THR	NHIC, OBBA, eBird, iNat	2022
SAR	Bird	Cerulean Warbler	<i>Setophaga cerulea</i>	S3B	THR	END	OBBA	2001-2005
SAR	Bird	Chimney Swift	<i>Chaetura pelagica</i>	S4B,S4N	THR	THR	OBBA, eBird	2022
SAR	Bird	Eastern Meadowlark	<i>Sturnella magna</i>	S4B	THR	THR	NHIC, OBBA, iNat	2022
SAR	Bird	Eastern Whip-poor-will	<i>Antrostomus vociferus</i>	S4B	THR	THR	iNat	2022
SAR	Bird	Least Bittern	<i>Ixobrychus exilis</i>	S4B	THR	THR	NHIC; OBBA	2001-2005
SAR	Bird	Louisiana Waterthrush	<i>Parkesia motacilla</i>	S3B	THR	THR	OBBA	2001-2005
SAR	Bird	King Rail	<i>Rallus elegans</i>	S2B	END	END	OBBA	2001-2005
SAR	Bird	Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	S4B	THR	END	NHIC, OBBA	2001-2005
SAR	Bird	Yellow-breasted Chat	<i>Icteria virens</i>	S1B	END	END	OBBA	2001-2005
SAR	Mammal	Eastern Small-footed Myotis	<i>Myotis leibii</i>	S2S3	END	-	BCI	N/A
SAR	Mammal	Little Brown Myotis	<i>Myotis lucifugus</i>	S3	END	END	BCI	N/A
SAR	Mammal	Northern Myotis	<i>Myotis septentrionalis</i>	S3	END	END	BCI	N/A
SAR	Mammal	Tri-colored Bat	<i>Perimyotis subflavus</i>	S3?	END	END	BCI	N/A
SAR	Reptile	Blanding's Turtle	<i>Emydoidea blandingii</i>	S3	THR	END	NHIC, ORAA	2019
SOCC	Plant	Swamp Rose-mallow	<i>Hibiscus moscheutos</i>	S3	SC	SC	NHIC	N/A
SOCC	Bird	Bald Eagle	<i>Haliaeetus leucocephalus</i>	S2N,S4B	SC	NAR	OBBA, iNat	2022
SOCC	Bird	Canada Warbler	<i>Cardellina canadensis</i>	S4B	SC	THR	OBBA, eBird	2022
SOCC	Bird	Common Nighthawk	<i>Chordeiles minor</i>	S4B	SC	THR	OBBA, iNat	2022
SOCC	Bird	Eastern Wood-pewee	<i>Contopus virens</i>	S4B	SC	SC	OBBA, eBird, iNat	2022
SOCC	Bird	Golden-winged Warbler	<i>Vermivora chrysoptera</i>	S4B	SC	THR	OBBA	2001-2005
SOCC	Bird	Grasshopper Sparrow	<i>Ammodramus savannarum</i>	S4B	SC	SC	OBBA	2001-2005
SOCC	Bird	Peregrine Falcon	<i>Falco peregrinus</i>	S3B	SC	SC	OBBA	2001-2005

Type	Taxon	Common Name	Scientific Name	S-Rank ¹	ESA Status ²	SARA Status ²	Source ³	Latest Year ⁴
SOCC	Bird	Purple Martin	<i>Progne subis</i>	S3B	-	-	TRCA	2013
SOCC	Bird	Red-necked Grebe	<i>Podiceps grisegena</i>	S3	NAR	-	TRCA	2013
SOCC	Bird	Rusty Blackbird	<i>Euphagus carolinus</i>	S4B	SC	SC	eBird, iNat	2022
SOCC	Bird	Short-eared Owl	<i>Asio flammeus</i>	S2N,S4B	SC	SC	OBBA	2001-2005
SOCC	Bird	Wood Thrush	<i>Hylocichla mustelina</i>	S4B	SC	THR	NHIC, OBBA, eBird	2022
SOCC	Insects	Black Dash	<i>Euphyes conspicua</i>	S3	-	-	OBA	2018
SOCC	Insects	Monarch	<i>Danaus plexippus</i>	S2N,S4B	SC	SC	OBA	2021
SOCC	Reptile	Eastern Milksnake	<i>Lampropeltis triangulum</i>	S4	-	SC	NHIC, ORAA	2018
SOCC	Reptile	Northern Map Turtle	<i>Graptemys geographica</i>	S3	SC	SC	NHIC, ORAA	2019
SOCC	Reptile	Snapping Turtle	<i>Chelydra serpentina</i>	S4	SC	SC	NHIC, ORAA	2019
SOCC	Reptile	Midland Painted Turtle	<i>Chrysemys picta marginata</i>	S4	-	SC	NHIC, ORAA, iNat	2019

Notes: 1. SH – Possibly Extirpated – Known from only historical records but still some hope of rediscovery. There is evidence that the species or ecosystem may no longer be present in the jurisdiction, but not enough to state this with certainty.
S1 – Critically Imperiled – At very high risk of extirpation in the province due to very restricted range, very few populations or occurrences, very steep declines, severe threats or other factors
S2 – Imperiled – At high risk of extirpation in the province due to restricted range, few populations or occurrences, steep declines, severe threats or other factors
S3 – Vulnerable – at moderate risk of extirpation in the province due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats or other factors.
S4 – Apparently Secure—Uncommon but not rare; some cause for long-term concern due to local recent declines, threats or other factors.
S5 – Secure—Common, widespread and abundant in the province.
SNR – Unranked—Province conservation status not yet assessed.
SU – Unrankable—Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
SNA – Not Applicable —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
S#S# - Range Rank —A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).
S#? – Inexact Rank.
S? – Not Ranked/ under review.
Breeding Status Qualifiers:
B – Breeding—Conservation status refers to the breeding population of the species in the province.
N – Nonbreeding—Conservation status refers to the non-breeding population of the species in the province.

2. Special Concern: A species that may become Threatened or Endangered due to a combination of biological characteristics and identified threats.
Threatened: Any native species that, on the basis of the best available scientific evidence, is at risk of becoming Endangered throughout all or a large portion of its Ontario range if the limiting factors are not reversed.
Endangered: A species facing imminent extinction or extirpation in Ontario.

3. Natural Heritage Information Centre (NHIC): <https://geohub.lio.gov.on.ca/datasets/make-a-map-natural-heritage-areas>
iNaturalist (iNat): <https://www.inaturalist.org/observations>
Ontario Breeding Bird Atlas (OBBA): <https://www.birdsontario.org/jsp/datasummaries.jsp>.
Ontario Reptile and Amphibian Atlas (ORAA): <https://ontarionature.org/programs/community-science/reptile-amphibian-atlas/>
Fisheries and Oceans Canada (DFO): <https://www.dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html>
Ontario Butterfly Atlas (OBA): <https://www.ontarioinsects.org/atlas/>
Land Information Ontario (LIO): <https://geohub.lio.gov.on.ca/>
Bat Conservation International (BCI): <https://www.batcon.org/about-bats/bat-profiles/>
eBird: <https://ebird.org/explore>

4. Records shown are within the past 20 years (2001 – 2021), or there is no associated date. Older records are considered historical and have been excluded.

5. Records identified in Fisheries and Oceans Canada Aquatic SAR Mapping outside of a 1 km buffer encompassing the Study Area.

3.2.2 Field Investigations

Aquatic and terrestrial field investigations were completed on May 25, 2022. Field Surveys completed included:

- Fish Habitat Assessment
- Ecological Land Classification (ELC)
- Significant Wildlife Habitat and Species at Risk Habitat Assessments
- Incidental Wildlife Observations

The results of the field investigations are summarized below. Refer to the **Natural Environment Report (Appendix B)** for the detailed methods and results.

3.2.2.1 Aquatic Habitat Assessment

Mimico Creek

Mimico Creek flows southerly through the Natural Environment Study Area draining to Lake Ontario within Humber Bay Park (south of Lake Shore Boulevard West). The watercourse was assessed from approximately 100 m downstream (south) of the Humber Bay Park pedestrian bridge over Mimico Creek to the unnamed Mimico Creek Tributary approximately 140 m upstream (north) of Lake Shore Boulevard West. Downstream of Lake Shore Boulevard West, in the southwest quadrant of the Natural Environment Study Area, the channel morphology consisted of a large estuary feature with a mean wetted width of approximately 35 m (ranging from 25 m to 65 m upstream to downstream) and a mean bankfull width of 39 m. The near shore substrate and banks consisted predominantly of cobble and boulder armouring, in order of abundance, but further bed substrate material could not be visually assessed due to the depth and turbidity. The left upstream bank was slightly unstable, exhibiting scour along the bank above the cobble/boulder armoring. A re-naturalized boat launch with sapling plantings was present on the left upstream bank at the downstream extent, followed by a narrow, treed riparian zone upstream of the old boat launch towards the pedestrian bridge, and the Mimico Mouth Wetland upstream of the pedestrian bridge.

The existing storm sewer outlet was located in the wooded area north of the Mimico Mouth Wetland near the intersection of Lake Shore Boulevard West and Humber Bay Park Road West. The outlet consisted of an overflow grate that drains to the Mimico Mouth Wetland ephemerally with limited channel definition or evidence of substrate sorting, which poses an impediment to fish passage to the outlet. Approximately 70% of the wetland was covered in emergent vegetation and organic and woody debris.

The right upstream bank was stable with a long-vegetated berm spanning most of the downstream reach separating the Mimico Creek channel from the Mimico Creek East Bank Wetland on the opposite side of the berm. A fish gate barrier for Common Carp (*Cyprinus carpio*) was present at the mouth of the wetland to Mimico Creek. Emergent common reed (*Phragmites* sp.) was present within the Mimico Creek East Bank Wetland and on the right upstream bank at the pedestrian bridge crossing. Approximately 10-20% of the wetland was covered in emergent vegetation and instream organic debris. Conditions on the right bank were similar to the left bank, but with greater riparian tree cover that increased in width and density with greater proximity to Lake Shore Boulevard West.

Mimico Creek upstream of Lake Shore Boulevard West was narrower, with a wetted width of approximately 15-20 m, but remained relatively straight with primarily run morphology. Both banks had high riparian cover and greater stream shading (60-90%) than downstream of Lake Shore Boulevard West, but less cobble and boulder substrate and greater bank instability. Bank scouring and large slope failures were present particularly on the left upstream bank. Gabion baskets were installed on both banks upstream of the Lake Shore Boulevard West bridge.

Mimico Creek Tributary

The unnamed tributary of Mimico Creek within the Study Area was present approximately 140 m upstream of the Lake Shore Boulevard West crossing of Mimico Creek. The Mimico Creek Tributary flowed generally southeast for approximately 200 m from Legion Road to Mimico Creek. This tributary originated from a storm sewer outlet pipe in a concrete headwall at Legion Road and flowed through a meadow marsh within a small valley feature. Slopes along the valley were treed, but the banks of the Mimico Creek Tributary consisted predominantly of herbaceous vegetation providing 60-90% stream cover. In-stream cover was moderate (30%) and provided by instream and overhanging narrow-leaved cattails (*Typha angustifolia*) and common reed (10%), woody debris (15%) from fallen willows, and sparse cobble (3%), boulder (1%), and undercut banks (1%). The banks throughout the reach contained some scouring with minor undercuts and moderate instability.

The size of the Mimico Creek Tributary changed in width and depth throughout the assessed reach. Upstream at the storm sewer outlet, the channel had a mean wetted width of 0.7 m and mean wetted depth of 0.05 m which increased to 3.5-4 m wetted width and a wetted depth of 0.3-0.45 m at the confluence with Mimico Creek. The bankfull width was 0.9 m upstream and 3.7-4.2 m at the confluence. Channel morphology was mostly run (90%) with a small section of pool (10%). Substrate was predominantly silt throughout the tributary with some embedded cobble, sand, and gravel, and a large boulder at the confluence. Attached and filamentous algae was

abundant along the bed substrate. Numerous Brook Stickleback (*Culaea inconstans*) were observed within the channel.

3.2.2.2 Vegetation Communities and Plants

Ecological Land Classification was completed to confirm vegetation communities identified through a review of background information as outlined in **Section 3.2.1.4** as well as identify new vegetation communities within the Study Area. Vegetation communities delineated by AECOM Ecologists are shown in **Figure 3-4** and outlined in **Table 3-3**.

A majority of the Natural Environment Study Area is built-up, represented by residential or commercial buildings with natural communities concentrated within the Humber Bay Park and north along the Mimico Creek valley. A list of vascular plant species as well as the community sensitivity and floristic assessments for each identified vegetation community is provided in Appendix C of the **Natural Environment Report (Appendix B)**. A total of 80 plant species were recorded within the Natural Environment Study Area, of which 43 (54%) were native and 37 (46%) were introduced. A total of 21 invasive species were identified. All of the identified vegetation communities within the Natural Environment Study Area were of general low vegetation quality as evidenced by a high proportion of the cover dominated by introduced species, and none of the vegetation communities were provincially significant. There were no Species at Risk or Species of Conservation Concern plant species recorded within the Natural Environment Study Area. Two species considered to be locally rare within Toronto Region Conservation Authority jurisdiction were recorded, including white spruce (*Picea glauca*) and heart-leaved aster (*Symphyotrichum cordifolium*). The white spruce was planted within Cultural Hedgerow. Heart-leaved aster was found within the Mineral Cultural Woodland (CUW1) surrounding the and Mimico Creek East Bank Wetland.

Figure 3-6: Ecological Land Classification

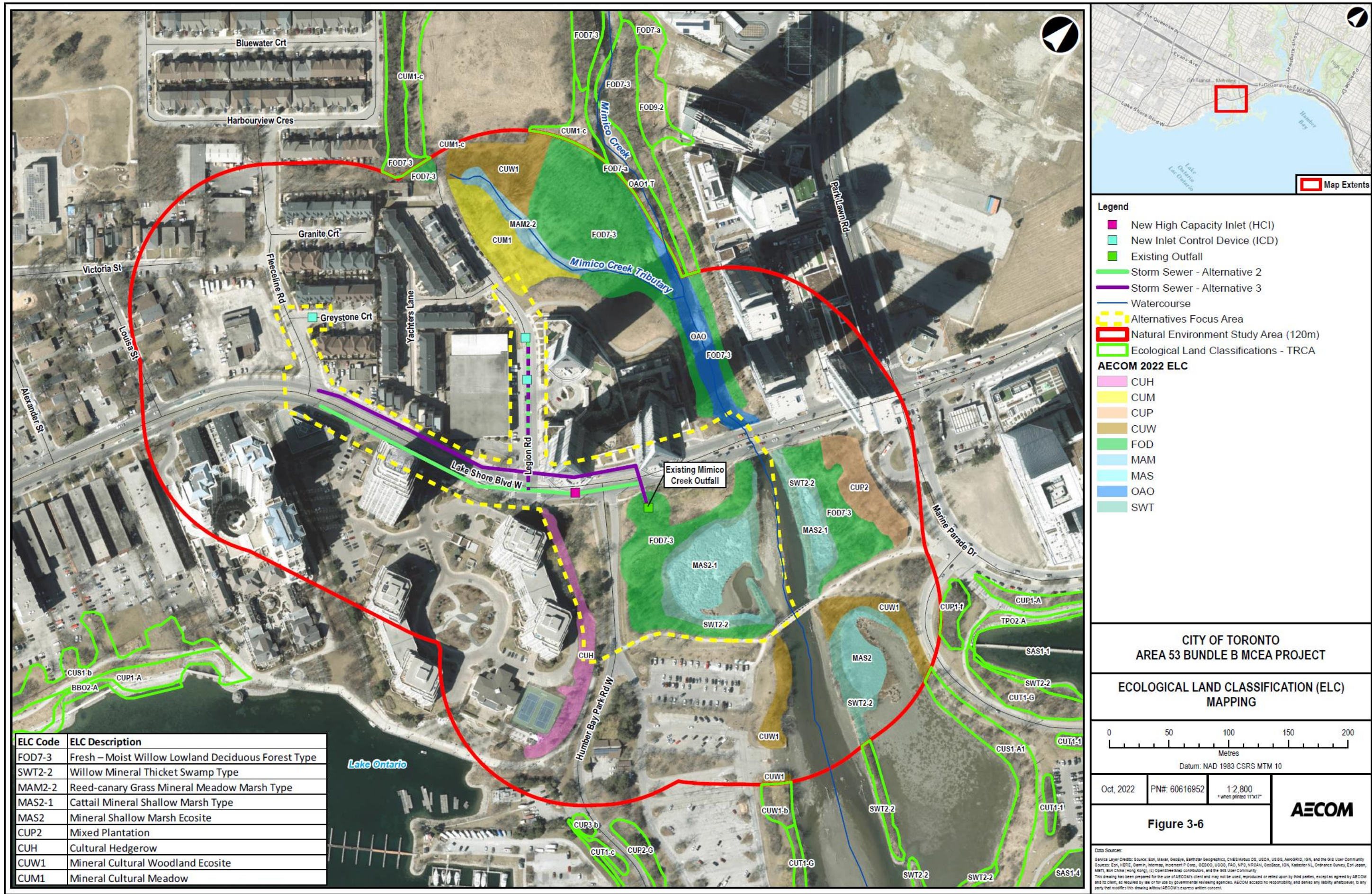


Table 3-3: Ecological Land Classification (ELC) Communities within the Natural Environment Study Area

ELC Code	ELC Name	Location	ELC Description
FOD7-3	Fresh – Moist Willow Lowland Deciduous Forest	Located south of Lake Shore Boulevard West on either upper slope of Mimico Creek valley.	Tree cover was dominated by crack willow (<i>Salix euxina</i>), Norway maple (<i>Acer platanoides</i>), sugar maple (<i>Acer saccharum</i>), green ash (<i>Fraxinus pennsylvanica</i>) and American elm (<i>Ulmus americana</i>). Shrubs included Tartarian honeysuckle (<i>Lonicera tatarica</i>), common buckthorn (<i>Rhamnus cathartica</i>), staghorn sumac (<i>Rhus typhina</i>), red-osier dogwood (<i>Cornus sericea</i>) and choke cherry (<i>Prunus virginiana</i>). The herb layer consisted of wild carrot (<i>Daucus carota</i>), Kentucky bluegrass (<i>Poa pratensis</i>), common dandelion (<i>Taraxacum officinale</i>) and Canada goldenrod (<i>Solidago canadensis</i>). This community included a small area of Coniferous Plantation (CUP3).
FOD7-3	Fresh – Moist Willow Lowland Deciduous Forest Type	Located along Mimico Creek north of Lake Shore Boulevard West.	Canopy layer consisted of crack willow, eastern cottonwood (<i>Populus deltoides</i>), Manitoba maple (<i>Acer negundo</i>), green ash, Siberian elm (<i>Ulmus pumila</i>) black locust (<i>Robinia pseudo-acacia</i>), and Norway maple. Shrub layer covered approximately 25% and consisted of immature green ash, choke cherry, Tartarian honeysuckle, common buckthorn and red-osier dogwood. Ground cover consisted of garlic mustard (<i>Alliaria petiolata</i>), common dandelion, Canada goldenrod, Kentucky bluegrass, urban avens (<i>Geum urbanum</i>) and American cow parsnip (<i>Heracleum maximum</i>).
SWT2-2	Willow Mineral Thicket Swamp Type	Located within Mimico Mouth Wetland and Mimico Creek East Bank Wetland.	The swamp thicket was densely comprised of American elm, silver maple (<i>Acer sacharinum</i>), sandbar willow (<i>Salix interior</i>), and grey dogwood (<i>Cornus racemosa</i>) within the understory. The ground layer was vegetated with reed canary grass (<i>Phalaris arundinacea</i>), Canada thistle (<i>Cirsium arvense</i>), purple loosestrife (<i>Lythrum salicaria</i>), Canada anemone (<i>Anemone canadense</i>) and common reed (<i>Phragmites australis</i>).
MAM2-2	Reed-canary Grass Mineral Meadow Marsh Type	Located along Unnamed Mimico Creek Tributary.	This community was dominated by reed canary grass with less spotted jewelweed (<i>Impatiens capensis</i>), narrow-leaved cattail (<i>Typha angustifolia</i>) and European swallowwort (<i>Vincetoxicum rossicum</i>).
MAS2-1	Cattail Mineral Shallow Marsh Type	Located within Mimico Mouth Wetland.	This community was entirely dominated by narrow-leaved cattail with common reed, Canada thistle and purple loosestrife.
MAS2	Mineral Shallow Marsh	Pockets observed within Mimico Mouth Wetland and Mimico Creek East Bank Wetland. Substantial patch delineated within Mimico Creek East Bank Wetland.	This community was entirely dominated by invasive common reed.
CUP2	Mixed Plantation		Canopy consisted Austrian pine (<i>Pinus nigra</i>), white pine (<i>Pinus strobus</i>), green ash, black cherry (<i>Prunus serotina</i>) and Norway maple were also observed but were not a common occurrence. Common shrub species observed included Tartarian honeysuckle, choke cherry, common buckthorn and multiflora rose (<i>Rosa multiflora</i>). Herbaceous species observed included garlic mustard, urban avens, common dandelion and Canada goldenrod.
CUH	Cultural Hedgerow	Within Humber Bay Park.	Tree row consisted of Norway maple, Austrian pine, white ash (<i>Fraxinus americana</i>) and bebb's willow (<i>Salix bebbiana</i>). Common shrub species observed included Tartarian honeysuckle, choke cherry, common buckthorn, staghorn sumac, common lilac (<i>Syringa vulgaris</i>) and grey dogwood. Herbaceous species observed included garlic mustard, urban avens, common dandelion and Canada goldenrod.
CUW1	Mineral Cultural Woodland Ecosite	South of the pedestrian bridge along the banks of Mimico Creek. Also between Mineral Cultural Meadow (CUM1) and Fresh – Moist Willow Lowland Deciduous Forest (FOD7-3).	The open canopy of this successional community was abundant with Siberian elm, Manitoba maple, green ash, crack willow and American elm. The understory was abundant with Tartarian honeysuckle, choke cherry, common buckthorn, and multiflora rose, immature American elm, gray dogwood and staghorn sumac. The ground layer was comprised of common dandelion, garlic mustard, wild carrot, and Canada goldenrod.
CUM1	Mineral Cultural Meadow	Adjacent to Legion Road.	The meadow lacked a defined canopy and subcanopy layer with few scattered trees which consisted of Manitoba maple, green ash and Siberian elm. The ground layer was abundant with Canada goldenrod, reed canary grass, garlic mustard, Kentucky bluegrass, wild parsnip and common dandelion.

3.2.2.3 Incidental Wildlife Observations

Evidence of wildlife (e.g., tracks, vocalization, etc.) and wildlife habitat were documented during the field investigations. Species observed (**Table 3-4**) are considered common and tolerant of urban disturbances; however, the majority are also protected under the Migratory Birds Convention Act. Although the Natural Environment Study Area is characterized by small and fragmented Ecological Land Classification communities subjected to anthropogenic disturbance, the vegetation present still provides potential nesting opportunities for migratory birds.

Other anthropogenic structures (e.g., buildings) within the Natural Environment Study Area may provide nesting habitat for migratory birds; however, are located beyond the Alternatives Focus Area.

Table 3-4: Incidental Wildlife Observations

Taxon	Common Name	Scientific Name	S-Rank¹	ESA Status²	SARA Status³
Birds	American Robin	<i>Turdus migratorius</i>	S5B	N/A	N/A
Birds	Canada Goose	<i>Branta canadensis</i>	S5	N/A	N/A
Birds	Mute Swan	<i>Cygnus olor</i>	SNA	N/A	N/A
Birds	Mallard	<i>Anas platyrhynchos</i>	S5	N/A	N/A
Birds	Double-crested Cormorant	<i>Phalacrocorax auritus</i>	S5B	N/A	NAR
Birds	Killdeer	<i>Charadrius vociferus</i>	S5B,S5N	N/A	N/A
Birds	Rock Pigeon	<i>Columba livia</i>	SNA	N/A	N/A
Birds	Mourning Dove	<i>Zenaidura macroura</i>	S5	N/A	N/A
Birds	Downy Woodpecker	<i>Picoides pubescens</i>	S5	N/A	N/A
Birds	Warbling Vireo	<i>Vireo gilvus</i>	S5B	N/A	N/A
Birds	Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	S4B	N/A	N/A
Birds	Barn Swallow	<i>Hirundo rustica</i>	S5B	THR	THR
Birds	Yellow-throated Warbler	<i>Dendroica petechia</i>	S5B	N/A	N/A
Birds	Red-winged Blackbird	<i>Agelaius phoeniceus</i>	S4B	N/A	N/A
Birds	Common Grackle	<i>Quiscalus quiscula</i>	S5B	N/A	N/A

Taxon	Common Name	Scientific Name	S-Rank ¹	ESA Status ²	SARA Status ³
Birds	Baltimore Oriole	<i>Icterus galbula</i>	S4B	N/A	N/A
Birds	House Sparrow	<i>Passer domesticus</i>	SNA	N/A	N/A
Birds	Northern Cardinal	<i>Cardinalis</i>	S5	N/A	N/A
Birds	Song Sparrow	<i>Melospiza melodia</i>	S5B	N/A	N/A
Reptiles	Midland Painted Turtle	<i>Chrysemys picta marginata</i>	S4	N/A	SC

Notes: 1, 2, 3 – refer to definitions under **Table 3-2**.

3.2.3 Significant Wildlife Habitat Assessment

The presence of candidate Significant Wildlife Habitat was identified through a preliminary assessment using background data and air photo interpretation. A screening for Species of Conservation Concern was also completed separately following the same methods for the Species at Risk habitat screening.

Significant Wildlife Habitat was limited within the Natural Environment Study Area given the highly urbanized landscape context. The SWH assessment is contained in Appendix D of the **Natural Environment Report (Appendix B)**.

Five candidate Significant Wildlife Habitat types may be present within the Natural Environment Study Area but could not be confirmed as targeted surveys were not performed:

- Seasonal Concentration Areas of Animals:
 - Waterfowl Stopover and Staging Areas (Aquatic) – open water and wetland communities;
 - Bat Maternity Colonies – may be found in tree cavities/snags of FOD7-3 communities; and
 - Turtle Wintering Areas – open water communities deep enough to not freeze and have soft mud substrates
- Specialized Habitats of Wildlife:
 - Amphibian Breeding Habitat (Woodland) – Mimico Mouth Wetland may provide suitable habitat
- Habitats of Species of Conservation Concern:
 - Special Concern and Rare Wildlife Species: Canada Warbler (*Cardellina canadensis*), Common Nighthawk (*Chordeiles minor*), Eastern Wood-pewee (*Contopus virens*), Wood Thrush (*Hylocichla mustelina*), Monarch (*Danaus*

plexippus), Eastern Milksnake (*Lampropeltis triangulum*), Northern Map Turtle (*Graptemys geographica*) and Snapping Turtle (*Chelydra serpentina*)

3.2.4 Species at Risk Habitat Assessment

A Species at Risk habitat assessment was completed to determine the potential presence of Species At Risk within the Natural Environment Study Area. A list of Species at Risk with records in the vicinity of the Natural Environment Study Area was compiled based on a review of background information and summarized in **Table 3-2**. Habitat preferences of the listed Species at Risk were then compared to onsite habitat characteristics to determine if potential habitat was present within the Natural Environment Study Area.

The only Species at Risk observed during field investigations was Barn Swallow, which was confirmed nesting under the Lake Shore Boulevard West bridge over Mimico Creek and the pedestrian bridge over Mimico Creek. The alternatives identified for this project do not involve works to the pedestrian bridge and bridge over Mimico Creek.

Medium probability for the following Species at Risk to occur within the Study Area was also identified:

- American Eel (*Anguilla rostrata*)
- Red-headed Woodpecker (*Melanerpes erythrocephalus*)
- Bat Species at Risk – Little Brown Myotis (*Myotis lucifugus*), Eastern Small-footed Myotis (*Myotis leibii*), Northern Myotis (*Myotis septentrionalis*) and Tri-colored Bat (*Perimyotis subflavus*)

The remaining SAR listed from **Table 3-2** were identified to have low probability of occurrence within the Natural Environment Study Area.

3.3 Tree Inventory

A tree inventory was conducted for the Alternatives Focus Area with impact analysis undertaken for the preferred solution (Alternative 2). For the purpose of the **Arborist Report and Tree Preservation Plan (Appendix C)**, the conceptual Alternative 2 construction footprint is referred to as the Anticipated Impact Area, which includes an additional 6 to 12 m Buffer Area beyond this boundary. The inventory was completed in order to assess the general health and structural condition of the subject trees and to identify those trees that are at risk due to construction activities.

Refer to the **Arborist Report and Tree Preservation Plan (Appendix C)** for the complete methods and results of the tree inventory, assessment and impact analysis.

3.3.1 Inventory of Individual Trees

Of the total 1,013 individual trees inventoried, 35 were located within the Anticipated Impact Area, 228 were located within the Buffer Area, 750 were located outside the Anticipated Impact and Buffer Areas but within the Tree Inventory Area. **Table 3-5** below provides a summary of tree locations within the Tree Inventory Area, whilst **Table 3-6** provides a summary of trees inventoried, as well as their City by-law category.

Table 3-5: Summary of Tree Locations Within the Tree Inventory Area

Ownership	Trees Within the Anticipated Impact Area	Trees Within the Buffer Area	Trees Within the Tree Inventory Area	Total
City of Toronto (Park)	33	175	575	783
City of Toronto (ROW)	2	29	65	96
Private Property	0	24	77	101
Toronto and Region Conservation Authority (TRCA)	0	0	33	33
Total	35	228	750	1,013

Table 3-6: Summary of Tree Inventory and Total Trees in Each Category

Category	Description	Total
2	Trees 30 cm in DBH situated on private property (including TRCA) adjacent to the subject site within the Tree Inventory Area	21
3	Trees of all diameters situated on City-owned parkland within the Tree Inventory Area	272
4	Trees of all diameters situated on lands designated under City of Toronto Municipal Code, Chapter 658, Ravine and Natural Feature Protection within the Tree Inventory Area	650
5	Trees of all diameters situated on City's road allowance or City-owned property and within the Tree Inventory Area	27
N/A	Trees not regulated by the City of Toronto tree protection By-laws	43
Total		1,013

3.3.1.1 Potentially Hazardous Trees

One (1) potentially hazardous tree (Tree 549) was identified within the Tree Inventory Area, outside of both the Anticipated Impact and Buffer Areas.

3.3.1.2 Species at Risk

Three (3) Black ash (*Fraxinus nigra*) saplings were inventoried in the Tree Inventory Area, measuring between 1 cm and 4 cm in Diameter at breast height (DBH). Although Black ash is designated as Endangered under the *Endangered Species Act*, 2007 and Black ash individuals and their habitat are technically afforded protection under the *Endangered Species Act*, the protection of the species is temporarily suspended for two years until 2024 to allow the Ministry of the Environment, Conservation and Parks time to determine the best way to protect and recover Black ash in Ontario. During this time, activities that impact Black ash and its habitat may proceed without authorization.

3.3.1.3 Heritage, Memorial, and Special Status Trees

At the time of the tree inventory, there were no Heritage, memorial, or other trees with special status observed within the Tree Inventory Area.

3.3.2 Tree Assessment of Individual Trees

All individual trees surveyed as part of the tree inventory and assessment were found within an urban or naturalized environment and consisted of small, medium and large trees with diameter-at-breast-height (DBH) measurements ranging from 1 cm to 112 cm DBH; the average DBH was 12 cm. Several tree species were identified during the tree inventory, with the most abundant being Norway maple (*Acer platanoides*), an invasive species.

Table 3-7 provides a summary of the overall condition of trees ranging from a rating of good to dead.

Table 3-7: Summary of Tree Condition

Tree Condition	Total Number of Trees
Good	669
Fair	262
Poor	58
Dead	24
Total	1,013

3.3.3 Tree Inventory and Assessment of Tree Polygons

A total of six (6) polygons were collected which include Ash (*Fraxinus spp.*) saplings under 10 cm where they occur in dense groupings, as detailed in Appendix A2 of the **Arborist Report and Tree Preservation Plan (Appendix C)**. It is estimated that a total of 1,844 trees are included in these six (6) polygons, occupying a total area of approximately 961 m². The tree polygons are located outside of the Anticipated Impact Area, within the Buffer Area and the remaining Tree Inventory Area.

3.3.4 Tree Impact Analysis

3.3.4.1 Individual Trees

Based on the results of the tree impact analysis, the full development of the Anticipated Impact Area would lead to the removal of 42 trees, and injury of 29 trees. The remaining 942 are not anticipated to be impacted by the proposed work, with protection proposed around retained trees located within the Buffer Area. **Table 3-8** below provides an overall summary of the recommended action for all inventoried trees based on the current Anticipated Impact Area, and Appendix A1 in the **Arborist Report and Tree Preservation Plan (Appendix C)** lists the recommended action for each tree.

Table 3-8: Summary of Tree Removal and Preservation Recommendations

Tree Location	Anticipated Removal	Anticipated Injury	No Anticipated Impact
Anticipated Impact Area	35	0	0
Buffer Area	7	29	192
Remaining Tree Inventory Area	0	0	750
Total	42	29	942

It is recommended that the proposed work as part of the Project be reviewed alongside the results of the tree impact analysis during detailed design when the construction footprint is confirmed, and that proposed impacts to trees are reduced wherever feasible to maximize tree preservation. Should the limits or nature of the proposed work change, an ISA Certified Arborist should be retained to review the additional impacts and determine whether the recommended actions in this report are still applicable.

3.3.5 Tree Impact Analysis of Tree Polygons

All six tree polygons inventoried are located outside of the Anticipated Impact Area and given the saplings' size, they are not anticipated to be affected by the Project. Portions of the polygons that overlap with the Buffer Area will be protected, nonetheless.

3.3.6 Tree Impact Analysis of Species at Risk

One Black ash sapling (Tree 580) located in the Buffer Area is anticipated to be injured by the proposed work, however, given the suspension of protection of Black ash trees, no authorization from the Ministry of the Environment, Conservation and Parks is required at this time. Nevertheless, the Project limits should be reviewed as to avoid injury to this Species at Risk tree. Another Black ash sapling is located in the Buffer Area and will be protected from injury, with the remaining Ash sapling located in the Tree Inventory Area more than 12 m away from the Anticipated Impact Area.

3.3.7 Tree Impact Analysis of Potentially Hazardous Trees

Tree 549, the only tree identified as a potential hazard during the tree inventory, is located outside of the Anticipated Impact and Buffer Areas, and is not expected to be affected by the proposed work. It is at the discretion of the City and the associated property owners whether this tree should be further inspected.

3.4 Geomorphological Conditions

A **Scoped Fluvial Geomorphological Assessment (Appendix D)** has been completed to characterize the existing geomorphological conditions and functions of Mimico Creek within the Fluvial Assessment Study Area. The assessment included a Rapid Geomorphic Assessment (RGA) to identify the watercourse's current mode of adjustment, as well as identifying opportunities and constraints relating to channel processes and the proposed alternatives (**Section 6.1**) that involve Mimico Creek outfall improvements. Findings were used to characterize geomorphological condition of the watercourse, stability, existing issues and opportunities for enhancement.

Field data was collected for Reach M-0 to assess the existing geomorphological conditions of Mimico Creek within the Fluvial Assessment Study Area. Reach M-0 was delineated for approximately 650 m from downstream (south) of Lake Shore Boulevard West to the discharge point of Mimico Creek into Lake Ontario. Below summarizes the findings within the Fluvial Assessment Study Area:

- The area south of Lake Shore Boulevard West is the result of infilling starting in the decade of 1960. The reach subject of the current fluvial assessment contains

artificial boundaries resulting from the infilling process. The banks of the investigated reach (Reach M-0) were lined with rocks, armourstone and concrete rubble, providing stability and protection against erosional forces. The RGA identified the receiving reach (Mimico Creek) as stable.

- Mimico Creek within the Study Area is a low gradient alluvial channel that experiences backwater conditions due to its proximity to Lake Ontario.
- Unconsolidated sediment was identified along the channel bed, this is consistent with results of the AECOM 2018 Bonar Creek Stormwater Management Facility study, the low gradient of the channel and the location of the reach being at the mouth of the river, including backwater effects due to the proximity to Lake Ontario. Accumulation of fine sediment (where could be seen) and higher rates of deposition are common at the mouths of rivers due to backwatering as the channel loses its ability to transport sediment, resulting in a decrease in velocity and shear stress.
- The channel reach is predominantly protected by stone and dense vegetation. Localized pockets of erosion were observed mostly in areas where banks were not protected.
- The area for the proposed upsized stormwater Mimico Creek outfall located within Humber Bay Park was observed to be densely vegetated with mature trees further onto the banks and shrubs and wetland-type vegetation closer to the water. Wetland areas within the study area, identified as embayments, have been created for habitat purposes and are considered sensitive areas.
- There is no existing channel connecting the proposed discharge area of the outfall to Mimico Creek as the west embayment area is located between the two features.

3.5 Socio-Economic Environment

3.5.1 Existing Land Use

The Study Area is largely built up with residential and commercial buildings. The southern portion of the Study Area includes natural communities concentrated within the Humber Bay Park and north along the Mimico Creek valley. Humber Bay Park includes park space, a number of parking lots and paved pathways, boat ramp, as well as the Waterfront Trail and associated bridge over Mimico Creek. Mimico Cruising Club is also situated along the shoreline in this area.

3.5.2 Future Land Use

According to the City's development application website, the following development projects are under review within the Study Area at the time of this publication:

- 2256 Lakeshore Boulevard West: Official Plan and Zoning By-law amendment for a mixed-use building composed of two towers rising to 35 and 18 storeys. The proposed development includes 594 residential dwelling units and 665 square metres of commercial space at-grade along Lake Shore Boulevard West, fronting onto a pedestrian plaza.
- 2195 Lakeshore Boulevard West: Site Plan Approval to expand the existing TTC bus loop to accommodate a streetcar turnaround facility and to construct one-storey washroom facility for TTC drivers.
- 2150 Lakeshore Boulevard West, 2194 Lakeshore Boulevard West and 23 Park Lawn Road: An Official Plan and Zoning By-law Amendment application in order to redesignate the lands (from Regeneration Areas to Mixed Use Areas and Parks and Open Spaces) for a new Metrolinx GO Station as well as to permit an intensified mixed-use development which would include mid-rise and tall buildings. The redevelopment of this site would be completed in multiple phases with new public and private streets, a new public park, and two Squares.

3.5.3 Other Key Projects and Studies Related to the Study Area

Bonar Creek Stormwater Management Facility

AECOM was retained by the City of Toronto to complete the detailed design and construction of the Bonar Creek Stormwater Management Facility, Legion Road Extension and Metrolinx Grade Separation and the Mystic Pointe Storm Sewer. The proposed location of the Bonar Creek Stormwater Management Facility (under consideration at the time of the publication of this report) is along the southwest bank of Mimico Creek and along the north bank of Bonar Creek, with discharge to Mimico Creek.

The alternatives solutions identified in this study do not impact Bonar Creek as the proposed discharge areas are located downstream.

Humber Bay Park Master Plan. City of Toronto and Toronto and Region Conservation Authority. DTAH Architects Ltd. December 2018

As part of the Humber Bay Park Master Plan, a design concept was developed that provided principles and guidelines for improvement of the Humber Bay Park. The study

identified the general location of the existing Mimico Creek outfall as an area of medium to high sensitivity to development and extensive public use.

3.6 Cultural Heritage Environment

3.6.1 Archaeological Resources

The Stage 1 archaeological assessment completed for the proposed Basement Flooding Protection Program Area 53 (PIF Number: P123-0482-2021) was reviewed for this current Municipal Class Environmental Assessment study. The proposed alternatives identified in **Section 6.1** appear to be located in areas of deep and extensive disturbance removing all archaeological potential (see **Figure 3-5**). No previously completed archaeological assessments were identified within the current Municipal Class Environmental Assessment Study Area.

Given the results of this assessment, AECOM makes the following recommendations:

1. The archaeological potential mapping provided by the City of Toronto is based on ASI's (2004) modelling which uses environmental and cultural features to determine the potential for the recovery of archaeological resources. Those areas have been shaded in orange on Figure 7 of the Stage 1 AA for Basement Flooding Protection Program Area 53 Capacity Assessment Study. This figure is included with the **Stage 1 Archaeological Assessment Review Memorandum (Appendix E)**. These areas must be subject to Stage 2 archaeological assessment before any land alteration takes place, in accordance with Section 2.1 Property Survey of the Standards and Guidelines for Consultant Archaeologists (2011).
2. Much of the Study Area has been subject to deep and extensive disturbance from previous residential and commercial development, as well as the construction of roadways and associated infrastructure (unshaded areas in Figure 7 of the Stage 1 archaeological assessment for Basement Flooding Protection Program Area 53 Capacity Assessment Study). However, once the detailed design has been finalized for the Basement Flooding Remediation and Water Quality Improvement Master Plan a field review will be required of these lands to determine whether or not there are any areas of archaeological potential not found within the archaeological potential modelling provided by the City of Toronto.

Overall, the above recommendations identified from the Stage 1 archaeological assessment completed for the Area 53 BFPP Capacity Assessment Study apply to this current Area 53 Municipal Class Environmental Assessment Bundle B study. As stated in

recommendation 2, once the final alternative solution is confirmed, a field review must be conducted to determine whether or not there are any areas of archaeological potential not found within the archaeological potential modelling provided by the City of Toronto. This will be completed during the early stages of the detailed design phase. Should the field review determine the potential for the recovery of archaeological resources, then those areas will be subject to Stage 2 archaeological assessment (and further assessments, as required) before any land alteration takes place, in accordance with Section 2.1 Property Survey of the Standards and Guidelines for Consultant Archaeologists (2011).

3.6.2 Built Heritage Resources and Cultural Heritage Landscapes

A **Desktop Cultural Heritage Screening Report (Appendix F)** has been completed to screen for known and potential built heritage resources (BHRs) and cultural heritage landscapes (CHLs) within the Alternatives Focus Area. This screening followed the process outlined in the Ministry of Heritage, Sport, Tourism and Culture Industries' *Criteria for Evaluation Potential for Built Heritage Resources and Cultural Heritage Landscapes* (2016)

There are two built heritage resources and one cultural heritage landscapes within the focus area as shown on **Figure 3-5**:

- BHR 1 – Lake Shore Boulevard West Bridge over Mimico Creek
- BHR 2 – Mimico Creek Pedestrian Bridge
- CHL 1 – Mimico Creek

Based on the preliminary impact assessment undertaken, BHR 1, BHR 2 and CHL 1 will not be directly adversely impacted or indirectly impacted by the Project. Therefore, no further work is required.

Figure 3-7: Cultural Heritage Existing Conditions

