

www.erm.com Version: F.1 Project No.: 0460600-0005-0003 Client: Imperial Oil Limited February 2019

			Thermal		
amily	Common Name	Scientific Name	Regime	Habitat	Timing
Anguillidae	American eel	Anguilla rostrata	cool	In Canada, it is found in all fresh water, estuaries and coastal marine waters that are accessible to the Atlantic Ocean, from Niagara Falls in the Great Lakes up to the mid- Labrador coast. Spawns in the Sargasso Sea.  Found near cover over muddy bottoms in lakes, ponds, rivers and creeks at depths <15 m; preferred water temperature range 16-19°C	not applicable, spawns at sea
Catostomidae	northern hog sucker	Hypentelium nigricans	cold	riffles, runs and pools of clear creeks and small rivers with gravel, cobble substrates; rare in lakes; preferred water temperature range 25-29°C	spring spawner
	white sucker	Catostomus commersoni	warm	warm, shallow water in small lakes, bays of large lakes and tributary streams of lakes; spawn in inlet / outlet streams to lakes (pool - rapid, gravel substrate)	spring spawner
	shorthead redhorse	Moxostoma macrolepidotum	warm	pools, runs and riffles in small to large rivers with sand and gravel substrates, and lake shallows; preferred water temperature range 26-27.5°C	spring spawner
Centrarchidae	black crappie	Pomoxis nigromaculatus	cool	substrate not critical for spawning (mud to gravel); typically occur in clear, warm lakes and sluggish streams and sloughs, often associated with dense weed beds or submerged logs	spring spawner
	bluegill	Lepomis macrochirus	warm	wamer lakes and ponds, slow-moving streams, clear waters with some weed growth	summer spawner
	green sunfish	Lepomis cyanellus	warm	quiet pools and backwaters of sluggish streams, ponds, lakes and impoundments, often near aquatic vegetation; preferred water temperature range 27-31°C	summer spawner
	largemouth bass	Micropterus salmoides	warm	deep water (> 6 m) in the littoral zone of small, warm lakes, bays of large lakes and rarely large, slow rivers	late spring / early summer spawne
	pumpkinseed	Lepomis gibbosus	cool	shallow, vegetated areas of ponds, small lakes, bays of large lakes, and slow areas of large rivers over a range of substrates	late spring / early summer spawne
	rock bass	Ambloplites rupestris	warm	rocky or vegetated shallows of lakes and pools of creeks and small to medium rivers; reported to depths of 21 m; preferred water temperature range 21-26°C	spring spawner
	smallmouth bass	Micropterus dolomieu	warm	small, shallow lakes, can be in rivers	spring spawner
Clupeidae	alewife	Alosa pseudoharengus	cold	INTRODUCED. open, waters (16-28 m) to a depth of 50 m (summer) or 90 m (winter); preferred water temperature range 16-21°C	summer spawner
	gizzard shad	Dorosoma cepedianum	cool	open surface waters (<33 m) of medium to large rivers, lakes and impoundments over mud bottom; often ascends creeks and small rivers with well-developed pools; preferred water temperature range 19-23°C	summer spawner
Cottidae	mottled sculpin	Cottus bairdii	cool	cobble and gravel riffles of cool creeks, small rivers and rocky shores of lakes (<16 m deep); preferred water temperature range 13-18°C	spring spawner
	slimy sculpin	Cottus cognatus	cool	benthic, inhabiting the bottom of cool streams and rivers with sandy or rocky bottoms, and lakes	spring spawner
Cyprinidae	blackchin shiner	Notropis heterodon	cool	nearshore of clear, vegetated lakes and quiet pools and slow runs in creeks and small rivers with sandy substrates	summer spawner
	blacknose shiner	Notropis heterolepis	cool	clear vegetated lakes and pools of creeks and small rivers with sandy substrates	summer spawner
	bluntnose minnow	Pimephales notatus	warm	sand and gravel bottomed shallows of clear lakes, creeks, rivers and ponds; preferred water temperature 26.3°C	summer spawner
	brassy minnow	Hybognathus hankinsoni	cool	small lakes, small, slow-moving streams, beaver ponds, ditches; soft, mud bottoms and dense vegetation, avoid fast water	spring / summer spawner

			Thermal			
	Common Name	Scientific Name	Regime	Habitat	Timing	
Cyprinidae (cont'd) co	central stoneroller	Campostoma anomalum	cool	pool/riffle/run habitats of small to medium-sized streams with gravel, cobble, rubble and sand substrates; rare in lakes and large rivers; preferred water temperature range 19-27°C	spring spawner	
	common carp	Cyprinus carpio	warm	INTRODUCED. spawn in shallow, weedy areas; quiet, warm, eutrophic waters	spring spawner	
	common shiner	Notropis cornutus	warm	The common shiner prefers faster pools in rivers and streams, but is also found in lakes.	spring spawner	
	creek chub	Semotilus atromaculatus	warm	Creek chub inhabit rivers and streams, where they eat small fish, plankton, and aquatic insects.	spring spawner	
	eastern blacknose dace	Rhinichthys atratulus	warm	runs and pools of clear, cool, swiftly-flowing creeks and small rivers with gravelly substrate; preferred water temperature range 19-25°C	spring spawner	
	emerald shiner	Notropis atherinoides	warm	large, open lakes and rivers, or mouths of smaller streams	spring / summer spawner	
	fathead minnow	Pimephales promelas	warm	still, muddy water in ponds and small lakes; muddy rivers and ditches; mud substrate	spring / summer spawner	
	golden shiner	Notemigonus crysoleucas	warm	clear, weedy, quiet waters of lakes, ponds, reservoirs and pools of small to large rivers with muddy substrate; preferred water temperature range 17-24°C	summer spawner	
	goldfish	Carassius auratus	warm	Introduced. Warm, muddy, turbid water of rivers, ponds and lakes most often associated with vegetation in shallow areas	spring spawner	
	hornyhead chub	Nocomis biguttatus	cool	pools and runs of clear, slow-flowing, gravelly small- to medium-sized streams, often tributary to larger rivers	spring / summer spawner	
	longnose dace	Rhinichthys cataractae	cool	clean, fast flowing and sometimes turbulent streams; riffles over substrate from gravel to boulders; benthic sp	early summer spawner	
	lake chub	Couesius plumbeus	cold	open waters of lakes, lake margins and gravel-bottomed pools and runs of creeks and rivers; moves to deeper waters in the summer; preferred water temperature <27°C	spring spawner	
	mimic shiner	Notropis volucellus	cool	sandy pools of creeks and small to large rivers, open waters and quiet backwaters of lakes	summer spawner	
	northern pearl dace	Margariscus nachtriebi	cool	pools of cool, clear headwater streams, bogs, ponds and small lakes with silt, sand or gravel bottoms, close to aquatic vegetation; preferred water temperature 16.2°C	spring spawner	
	northern redbelly dace	Phoxinus eos	cool	quiet, warm waters of boggy ponds, small lakes and pools, and within streams with silt and detritus bottoms; often in dark acidic water	spring / summer spawner	
	pearl dace	Margariscus margarita	cool	deep waters of small lakes; spawn in tributary streams or in vegetation along the edges of lakes	spring spawner	
	redside dace	Clinostomus elongatus	cool	coolwater minnow found in pools and slow-flowing areas of small and clear headwater streams over substrates (stream bottoms) of silt, gravel or boulders. Overhanging grasses and shrubs, as well as undercut banks, are an important part of their habitat, as	spring spawner	
	river chub	Nocomis micropogon	cool	swift currents and pools in medium sized creeks and rivers of high to moderate gradients with clean clear water and gravel to boulder substrates; preferred water temperature 21.7°C	spring spawner	
	rosyface shiner  Rosyface Shiner  warm  clear, flowing pools and runs of small to medium rivers with sand and gravel substrates; preferred water temperature 26.8°C					
	sand shiner	Notropis stramineus	cold	sand and gravel runs and pools of warm, clear creeks and small to large rivers, and sandy shallows of lakes with rooted aquatic vegetation	summer spawner	

			Thermal		
amily	Common Name	Scientific Name	Regime	Habitat	Timing
Cyprinidae (cont'd)	silver shiner	Notropis photogenis	cool	found in moderate to large, deep, relatively clear streams with swift currents, and moderate to high gradients. Stream widths at capture sites in an Ontario study mostly ranged from 30 to 100 m. Most capture sites were in deep swift riffles and faster cur	spring / early summer spawne
	spotfin shiner	Cyprinella spiloptera	warm	Inhabits sand and gravel runs and pools of creeks, and small to medium (sometimes large) rivers	summer spawner
	spottail shiner	Notropis hudsonius	cool	large lakes and some large, turbid rivers; spawn in stream mouths	spring / summer spawner
	blacknose dace	Rhinichthys obtusus	cool	riffles and runs of cool, small- to medium-sized streams with moderate to steep gradient and gravel substrate; rarely lakes; preferred water temperature range 19-25°C	spring spawner
	rudd	Scardinius erythrophthalmus	cool	clear, weedy, quiet waters of streams, rivers and lakes	spring spawner
Esocidae	northern pike	Esox lucius	warm	slow-moving, predatory sp; shallow areas of shallow lakes, marshes, backwater sloughs and sometimes slow rivers; spawning in marshes, sloughs, slow moving rivers	spring spawner
Gasterosteidae	brook stickleback	Culaea inconstans	cool	clear, cold waters in small streams, spring-fed ponds, and swampy areas and stagnant waters of larger; prefer densely vegetated areas	spring spawners
	threespine stickleback	Gasterosteus aculeatus	cool	versatile, like vegetation cover	spring / summer spawner
Gobiidae	round goby	Neogobius melanostomus	cool	cobble, gravel and sandy substrates in the lower to middle reaches of rivers and nearshore of lakes (to 20 m); optimum water temperature range 23-26°C	spring / summer spawner
ctaluridae	brown bullhead	Ameiurus nebulosus	warm	spawn in sand or gravel, shallow water, near veg or other cover; prefer small lakes or sluggish streams with soft bottoms and lots of veg but very adaptable	spring spawners
	stonecat	Noturus flavus	warm	cobble and boulder riffles and runs of creeks and small to large rivers, and gravel shoals of lakes; preferred water temperature 25.1°C	summer spawner
	yellow bullhead	Ameiurus natalis	cool	Yellow bullhead are bottom dwellers, living in areas with muck, rock, sand, or clay substrates. Its habitat includes river pools, backwaters, and sluggish current over soft or mildly rocky substrate in creeks, small to larger rivers, and shallow portions	spring spawner
/loronidae	white perch	Morone americana	warm	INVASIVE. Shallow and deep waters that exceed 23C in summer	spring spawner
	white bass	Morone chrysops	warm	open, surface waters (<14 m) of lakes and pools of small to large rivers with moderate current and sand to gravel substrates; preferred water temperature range 28-32°C	spring spawner
Osmeridae	rainbow smelt	Osmerus mordax	cold	INVASIVE. cool, clear, mid-waters (14-64 m) of lakes and medium to large rivers; preferred water temperature range 7-16°C	spring spawner
ercidae	blackside darter	Percina maculata	cool	quiet reaches and pools of creeks and small to medium rivers with moderate current and cobble, gravel or sand substrates, utilizing cover afforded by coarse woody debris, aquatic vegetation and undercut banks	spring spawner
	fantail darter	Etheostoma flabellare	cool	shallow, rocky riffles of creeks and small to medium rivers with deep pools and slow to moderate currents; preferred water temperature 22.4°C	spring spawner
	lowa darter	Etheostoma exile	warm	clear waters of lakes, and slow flowing pools of creeks and small to medium rivers, having rooted aquatic vegetation and organic to sand substrates; preferred water temperature range 12-25°C	spring spawner
	johnny darter/tesselated darter	Etheostoma nigrum	cool	sandy, silty, gravelly, sometimes rocky, pools of creeks and small to medium rivers, and sandy shores of lakes; reported to a depth of 42 m in the Great Lakes; preferred water temperature 22.8°C	spring spawner

			Thermal		
Family	Common Name	Scientific Name	Regime	Habitat	Timing
Percidae (cont'd)	logperch	Percina caprodes	cool	sand, gravel or rocky beaches in lakes and over similar substrates in creeks and rivers, avoiding silted areas and swift currents; reported at depths up to 39 m in Lake Erie	spring spawner
	rainbow darter	Etheostoma caeruleum	cool	fast-flowing gravel and cobble riffles of clear creeks and small to medium rivers; preferred water temperature 19.8°C	spring spawner
	yellow perch	Perca flavescens	warm	warm and cool lakes, ponds, and slow-flowing rivers, and brackish or saline water	spring spawner
	Johnny darter	Etheostoma nigrum	cool	sandy, silty, gravelly, sometimes rocky, pools of creeks and small to medium rivers, and sandy shores of lakes; reported to a depth of 42 m in the Great Lakes; preferred water temperature 22.8°C	spring spawner
	tessellated darter	Etheostoma olmstedi	cool	sandy, silty pools of creeks and small to medium rivers and shores of lakes; preferred water temperature 22.8°C	spring spawner
Percopsidae	trout-perch	Percopsis omiscomaycus	cold	deeper waters (9-13 m) of lakes, deep flowing pools of creeks and small to large rivers, usually over sand or gravel bottoms; preferred water temperature range 10-16°C	spring / summer spawner
Petromyzontidae	American brook lamprey	Lethenteron appendix	cold	adults in gravel/sand riffles and runs of creeks and small- to medium-sized rivers with strong flow and clear waters; ammocoetes in sandy or silty pools; preferred water temperature range 9-12°C	spring spawner
	sea lamprey	Petromyzon marinus	cool	feeding adults in open waters of lakes and large rivers; ammocoetes inhabit flowing areas of streams, burrowing in sandy silt substrates; preferred water temperature range 6-15°C	spring spawner
Salmonidae	Atlantic salmon	Salmo salar	cold	riffle habitat, gravel-cobble substrate	fall spawner
	brown trout	Salmo trutta	cool	spawn at tail out of a pool; adults wide variety of habitats; YOY shallow edge habitat in small streams; juveniles move into larger rivers	fall spawner
	Chinook salmon	Oncorhynchus tshawytscha	cool	INTRODUCED. spawn in larger streams, coarser substrate than other Pacific salmon, tail-outs of pools, upwelling spots; juveniles use off-channel, fry in edges, sloughs, backwater	spring / summer spawner
	cisco	Coregonus artedi	cool	lakes, generally, also brackish waters and rivers	fall spawner
	coho salmon	Oncorhynchus kisutch	cool	INTRODUCED. spawn pool tailouts, upwelling, riffle; fry and juveniles like side channels, cover (root wads, undercut banks, etc.)	fall spawner
	rainbow trout	Oncorhynchus mykiss	cool	INTRODUCED. Cold, clean, riffle / run; pools; spawn over gravel	spring spawner
Sciaenidae	freshwater drum	Aplodinotus grunniens	warm	sandy, silty bottoms of lakes and reservoirs (to 18 m), and pools in low to moderate-gradient, often turbid, rivers; preferred water temperature range 24-28°C	spring / summer spawner
Umbridae	central mudminnow	Umbra limi	warm	heavily vegetated ponds, wetlands, bogs or pools of small creeks and quiet, shallow (0.5 m) areas of lakes with mud and organic substrates	spring spawner

## Notes:

Fish distribution data sourced from ARA watercourse data, data provided by MNRF Guelph, CVC and TRCA, email communication with staff at MNRF Aurora, and publicly available watershed monitoring reports by CH, CVC and TRCA.

Table F-2: Fish Species Documented in Fish-bearing Streams Crossed by the WFP

Table F-2. Fish Species			on Boaring	, ou ou no	0.00000		· •		WFP	Fish-bearir	ng Watercou	ırses								
	Thermal	Borer's Creek Tributary 1	Borer's Creek Tributary 2	Grindstone Creek	Grindstone Creek Tributary	Lake Medad Tributary	Mt Nemo Tributary 2B	Mt Nemo Tributary 2A	Bronte Creek Tributary 2Ba	Bronte Creek Tributary 2B	Bronte Creek Tributary 2A	Bronte Creek	Sixteen Mile Creek	Sixteen Mile Creek Tributary 3	it Sixteen e Creek	Joshua Creek Tributary 3	Sawmill Creek	Mullet Creek	Cooksville Creek	Cooksville Creek Tributary 2
Common Name	Regime	Bor	Bor	Gri	Gri	Lak Trik	Mt	Trik T	Bro	Bro	Bro	Bro	Six	Six Cre	East	Jos	Sav	Mu	Coc	Coc Cre
alewife	cold											X	0, 0	0, 0, 1,	X	, ,				
American brook lamprey	cold															1				<del> </del>
American eel	cool											Х	Х		Х	1				
Atlantic salmon	cold											<u> </u>				1				<b> </b>
black crappie	cool															1				
blackchin shiner	cool																			
blacknose dace	cool		Х													1		Х		
blacknose shiner	cool															1				
blackside darter	cool															1				
bluegill	warm											Х				1				
bluntnose minnow	warm			Х												1		Х		
brassy minnow	cool												Х		Х	1				
brook stickleback	cool		Х										Х		Χ		Х	Х		
brown bullhead	warm		Х									Х	Х		Χ					
brown trout	cool															1				
central mudminnow	warm		Х	Х												1				
central stoneroller	cool																			
Chinook salmon	cool				€													X		
cisco	cool				AR.							X								
coho salmon	cool				) p													X		
common carp	warm		X	Х	9dd							X	X		Χ					
common shiner	warm		X		not mapped (ARA)	₹	<b>∂</b>	₹							Χ			Χ		
creek chub	warm		Х	Х	ot	(ARA)	(ARA)	(ARA)									Х	Χ	Х	X
eastern blacknose dace	warm	no data			, 'u	) p	) p	) p	data	data	data			data		data		Χ	Х	Х
emerald shiner	warm	<del>p</del>			h	be d	-be	be d		ep -	e P			ep -	Х	g				
fantail darter	cool	2			Guelph),	mapped	mapped (	mapped	no	00	no	Х	Х	no	Х	은		Х		
fathead minnow	warm		Х			L t	u u	L t									Х	Х		
freshwater drum	warm				data (MNRF	not	not	not												
gizzard shad	cool				Σ											ļ				
golden shiner	warm				ta (										X	ļ				
goldfish	warm																			
green sunfish	warm		X		no							X								
hornyhead chub	cool												Х							<del>                                     </del>
lowa darter	warm			.,												ļ				<u> </u>
Johnny darter	cool			Х																<b></b>
Johnny darter/tesselated darter	cool												Х		Х					
lake chub	cold																			
largemouth bass	warm		Х										Х							
logperch	cool																			
longnose dace	cool															1		Х	Х	Х
mimic shiner	cool																			
mottled sculpin	cool												Х			1				
northern hog sucker	cold			<u> </u>								Х	X		Х					
northern pike	warm		Х	Х								X								
northern redbelly dace																ļ				<del>                                     </del>
-	cool			ļ												ļ				<del>                                     </del>
northern pearl dace	cool		Х																	
pearl dace	cool											Х	Х			ļ				
pumpkinseed	cool		Х									Х	X		Χ		X	Χ		1

Table F-2: Fish Species Documented in Fish-bearing Streams Crossed by the WFP

Table 1 -2. I ISH Specie				,					WFP	Fish-bearin	ng Waterco	urses								
Common Name	Thermal Regime	Borer's Creek Tributary 1	Borer's Creek Tributary 2	Grindstone Creek	Grindstone Creek Tributary	Lake Medad Tributary	Mt Nemo Tributary 2B	Mt Nemo Tributary 2A	Bronte Creek Tributary 2Ba	Bronte Creek Tributary 2B	Bronte Creek Tributary 2A	Bronte Creek	Sixteen Mile Creek	Sixteen Mile Creek Tributary 3	East Sixteen Mile Creek	Joshua Creek Tributary 3	Sawmill Creek	Mullet Creek	Cooksville Creek	Cooksville Creek Tributary 2
rainbow darter	cool											Х	Х		Х					
rainbow smelt	cool																			
rainbow trout	cool																	Х		
redside dace	cool											Х	Х							
river chub	cool														Х					
rock bass	warm											Х	Х							
rosyface shiner	warm				€															
round goby	cool				\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\															
rudd	cool				not mapped (ARA)															
sand shiner	cold				ф															
sea lamprey	cool				Ĕ	(ARA)	not mapped (ARA)	(ARA)				Х	Х							
shorthead redhorse	warm					(A	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	(A	m m	m m	, m					m m				
silver shiner	cool	no data			Guelph),	pəddi	eq	mapped	data	data	data	Х	Х	data	Х	no data				
slimy sculpin	cool	<u>و</u>			delp	app	app	app	00	9	00	Х		9		ဉ်				
smallmouth bass	warm	_				Ĕ	Ĕ	Ĕ	_	_	_	Х		_	Х	_		Х		
spotfin shiner	warm				쮸	not	no lo	not												
spottail shiner	cool		Х		Z S															
stonecat	warm				data (MNRF															
tessellated darter	cool				da.															
threespine stickleback	cool				2							Х								
trout-perch	cold																			
white bass	warm																			
white perch	cool																			
white sucker	warm			Х								Х	Х		Х			Х		
yellow bullhead	cool																			
yellow perch	warm			Х								Х	Х							

Notes:

Bold text indicates species at risk

Fish distribution data sourced from ARA watercourse data, data provided by MNRF Guelph, CVC and TRCA, email communication with staff at MNRF Aurora, and publicly available watershed monitoring reports by CH, CVC and TRCA.

Table F-2: Fish Species Documented in Fish-bearing Streams Crossed by the WFP

Tubic 1 -2. 1 isii opecies i						bearing Wa					
	Ф		~	<b>W</b>							
	Little Etobicoke Creek	Etobicoke Creek	Elmcrest Creek	Renforth Creek	Mimico Creek	Berry Creek	West Humber River	Humber River	Emery Creek	Black Creek Tributary	Black Creek
Common Name	Little E Creek	Sre	ᇤ	Sen	ΜË	3er	West	un P	ä	3lao Frib	3 <u>lac</u>
alewife	1	X	ш	ь.		ш	> E			ш Г	ш
American brook lamprey		^					<del> </del>	Х			<u> </u>
American eel		Х						X			
Atlantic salmon								X	<u> </u>	<u> </u>	
black crappie		<u> </u>			Х		Х	X			
blackchin shiner		<u> </u>			^		X	X	Х		
blacknose dace		Х			Х	Х	X	X		<u> </u>	Х
blacknose shiner		X			^	^	^	^		Х	X
blackside darter								Х	<u> </u>		
bluegill					Х			X	Х		
bluntnose minnow	Х	Х	Х	Х	X	Х	Х	X	X		
	^	^		^		^	X	X	^	Х	Х
brassy minnow brook stickleback	Х	Х	Х	Х	Х	Х	X	X		X	X
brown bullhead	^	X	X	X	X	^	X	X	Х	X	X
brown trout		X		^			^	X	^	^	^
central mudminnow		X						^	<u> </u>	<u> </u>	
central stoneroller		X		Х		Х	Х	Х	<u> </u>	<u> </u>	
Chinook salmon		X		^		^	^	^	<u> </u>	<u> </u>	
cisco							<u> </u>				
coho salmon		Х									
		X	Х		Х	Х	Х	Х	Х	Х	Х
common carp	~	X	X	~	X	X	X	X	X		_ ^
common shiner	X	X	X	X	X	X	X	X			
creek chub eastern blacknose dace	X	X	X	X	X	X	^	^			Х
emerald shiner	^	X	^	^	X	^		Х			
fantail darter		X			^	Х	Х	X	Х	Х	
	Х	X	Х	Х	Х	X	X	X		^	X
fathead minnow freshwater drum	^	X	^	^	^	^	^	^			^
gizzard shad		X									
		X					Х	Х			
golden shiner goldfish		X	Х		Х		X	^		Х	Х
		X	^		^	~	X	~		^	^
green sunfish hornyhead chub		^				Х	^	X	Х	Х	Х
lowa darter		-						X	X	^	^
		V				V	V		^		
Johnny darter		X				X	X	X			
Johnny darter/tesselated darter	Х	Х			Х	Х	Х	Х		Х	Х
lake chub					Х						
largemouth bass		X			Χ	Х	X	Х			
logperch		Х						Х			
longnose dace	Х	Х	Х	Х	Х	Х	Х	Х			
mimic shiner		Х			Х			Х			
mottled sculpin		X					Х	X	Х		
northern hog sucker		X					X	X	X	Х	Х
northern pike		X									
		^			V						
northern redbelly dace		.,			Х						
northern pearl dace		Х									
pearl dace											
pumpkinseed		Х	X	•	X	X	X	X	X	X	X

Table F-2: Fish Species Documented in Fish-bearing Streams Crossed by the WFP

Table F-2: Fish Specie		iteu iii i is	II-Dearing	Juleanis							
		_	ı	1	WFP Fish-	bearing Wa	tercourses		1	1	ı
Common Name	Little Etobicoke Creek	Etobicoke Creek	Elmcrest Creek	Renforth Creek	Mimico Creek	Berry Creek	West Humber River	Humber River	Emery Creek	Black Creek Tributary	X Black Creek
rainbow darter		Х					Х	Χ		Х	Х
rainbow smelt		Х									
rainbow trout		Х				Х		Х			
redside dace					Х		Х	Х			Х
river chub					Х		Х	Х	Х	Х	Х
rock bass	Х	Х	Х	Х	Х		Х	Х	Х	Х	Х
rosyface shiner							Х	X			
round goby		Х			Х			Х			
rudd		Х									
sand shiner					Х			Х	Х		
sea lamprey											
shorthead redhorse		Х									
silver shiner											
slimy sculpin											
smallmouth bass		Х					Х				
spotfin shiner		Х			Х			Х			
spottail shiner		Х					Х	Х			
stonecat							Х	Х	Х	Х	Х
tessellated darter		Х			Х						
threespine stickleback	X	Х									
trout-perch		Х									
white bass		Х									
white perch		Х									
white sucker	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
yellow bullhead								Х			
yellow perch		Х			Х		Х	Х	Х	Х	Х

Notes:

Bold text indicates species at risk

Fish distribution data sourced from ARA watercourse data, data provided by MNRF Guelph, CVC and TRCA, email communication with staff at MNRF Aurora, and publicly available watershed monitoring reports by CH, CVC and TRCA.

Table F-3: W	etland Cross	ings											
	Wetland	Crossing	Crossing										
Order West to	Crossing Site	Begin Point	End Point	Crossing	Distance to			Wetland Vegetation Community (ELC		DO14/	W (I I O I I I I (DOM)		=: II
East 1	WT_1	Station 603.981602	785.656402	Length (m) 181.6748	Centerline (m) 0	Watershed Rock Chapel Creek	Wetland ID WTB_1	or LIO) MAM2 / CUM1-1	Wetland Complex ID WE1	No PSW	Wetland Complex Name (PSW)  Logies Creek Parkside Drive Wetland Complex	Associated Watercourse(s) Borer's Creek Tributaries 1 and 2	Yes, at high water, where connected to
2	WT_34	2423.849402	2573.7035	149.8541	0	Grindstone Creek	WTB_2	MAM2-2 / MAM2-10, SWD2-2	WE41	Yes	Lake Medad Valley Wetland Complex	Grindstone Creek	watercourse Yes, at high water, where connected to
3	WT_35.1	5155.751902	5173.6015	17.8496	0	Grindstone Creek	WTB_3	MAM2	WE42	Yes	Lake Medad Valley Wetland Complex	Lake Medad Tributary 2A	Yes, at high water, where connected to
4	WT_35.2	5383.765502	5655.8217	272.0562	0	Grindstone Creek	WTB_3	MAM3 / MAM2, SWD7	WE42	Yes	Lake Medad Valley Wetland Complex	Lake Medad Tributary; Lake Medad Tributary	watercourse Unknown
5	WT 26	6363.479002	6572.8553	209.3763	0	Grindstone Creek	WTB 49	SWD2-2, CUM1-1 / MAM2 / DIST	WE4	No	Unevaluated Wetland	2B Tributary to Lake Medad Tributary	Yes, at high water, where connected to
6	WT 36	7234.855102		140.5042	0	Grindstone Creek	WTB 4	MAM2-2	WE43	Yes	Grindstone Creek Headwaters Wetland	Mt Nemo Tributary 2B	watercourse Yes, at high water, where connected to
7	WT 37	8038.267802	8094.7775	56.5097	0	Grindstone Creek	WTB_5	SWD3-3	WE45	Yes	Complex Grindstone Creek Headwaters Wetland	Mt Nemo Tributary 2A	watercourse  No
0	_	8656.661602		43.8966				MAS2-1 / MAM2-2			Complex Unevaluated Wetland	·	No
9	WT_33 WT_44	11450	8700.5582	43.8900	0 1.5	Grindstone Creek Bronte Creek	WTB_6 WTB_67	MAM2-10	WE6 WE8	No No	Unevaluated Wetland	Mt Nemo Tributary 1  Bronte Creek Tributaries 2B and 2Be	Yes, at high water, where connected to watercourse
10	WT 40	11604.9699	11632.4251	27.4552	0	Bronte Creek	WTB 7	MAM2-2	WE8	No	Unevaluated Wetland	N/A	no
11	WT_41	12962.8158	13003.9204		0	Bronte Creek	WTB_8	MAM2-10	WE11	No	Unevaluated Wetland	Bronte Creek	Yes, at high water, where connected to watercourse
12	WT_38	17027.5698	17198.7255	171.1557	0	Sixteen Mile Creek	WTB_9	SWT/MAM2	WE46	Yes	North Oakville-Milton West Wetland Complex	N/A	no
13	WT_2	17625.9783	17671.5063	45.528	0	Sixteen Mile Creek	WTB_10	MAM2-10/MAM2-2	WE12	No	Unevaluated Wetland	N/A	no
14	WT_50	22002.3855	22029.703	27.3175	0	Sixteen Mile Creek	WTB_74	CUM1-1 / MAM2-10	WE14	No	Unevaluated Wetland	N/A	No
15	WT_52	22219.5779	22252.4229	32.845	0	Sixteen Mile Creek	WTB_76	MAM2	WE49	No	Unevaluated Wetland	East Sixteen Mile Creek	Yes, at high water, where connected to watercourse
16	WT_3	26843.7008	26904.5835	60.8827	0	Joshua Creek	WTB_11	MAM2-2	WE15	No	Unevaluated Wetland	N/A	no
17	WT_4	26980.8096	27055.5631	74.7535	0	Joshua Creek	WTB_12	MAS2-1	WE15	No	Unevaluated Wetland	N/A	no
18	WT_5.1	27162.8692	27186.1089	23.2397	0	Joshua Creek	WTB_13	MAS2-1 / MAM2-2	WE15	No	Unevaluated Wetland	N/A	no
19 20	WT_5.2 WT 6	27223.1781 27936.3169	27231.3637 28012.9466	8.1856 76.6297	0	Joshua Creek Credit River	WTB_13 WTB 14	MAS2-1 / MAM2-2 MAM2-2	WE15 WE16	No No	Unevaluated Wetland Unevaluated Wetland	N/A N/A	no no
21	WT 7.1	28368.8184	28393.2288	24.4104	0	Credit River	WTB_14	MAM2-2	WE17	No	Unevaluated Wetland	N/A N/A	no
22	WT 7.2	28401.9618	28440.5819	38.6201	0	Credit River	WTB_15	MAM2-2	WE17	No	Unevaluated Wetland	N/A	no
23	WT 7.3	28493.0592	28561.5522	68.493	0	Credit River	WTB_15	MAM2-2	WE17	No	Unevaluated Wetland	N/A	no
24	WT 8.1	28659.908	28717.1847	57.2767	0	Credit River	WTB 16	SWD3-3, MAM2-2	WE17	No	Unevaluated Wetland	N/A	no
25	WT_8.2	28753.8728	28811.4044	57.5316	0	Credit River	WTB_16	MAM2-2	WE17	No	Unevaluated Wetland	N/A	no
26	WT_9	29139.0625	29202.1238	63.0613	0	Credit River	WTB_17	MAS2-1	WE17	No	Unevaluated Wetland	N/A	no
27	WT_11	29788.1432	29822.0504	33.9072	0	Credit River	WTB_18	MAS2-1	WE18	No	Unevaluated Wetland	N/A	no
28	WT_13	32054.1583	32106.4116		0	Credit River	WTB_19	MAM2-2	WE19	No	Unevaluated Wetland	Mullet Creek	Yes, at high water, where connected to watercourse
29	WT_12	32227.2631	32266.8883	39.6252	0	Credit River	WTB_20	MAM2	WE19	No	Unevaluated Wetland	N/A	no
30	WT_14	32594.4088	32777.711	183.3022	0	Credit River	WTB_21	MAM2 / CUM1-1	WE20	No	Unevaluated Wetland	Credit River	yes, in floodplain
31	WT_45 WT_46	33093.19099 33378.16741			10 0.5	Credit River Credit River	WTB_51 WTB 52	SWD4-3 MAM2-2	WE21 WE22	No No	Unevaluated Wetland Unevaluated Wetland	N/A N/A	no
33	WT 16.1	34799.6526	34841.588	41.9354	0.5	Credit River	WTB_32	MAM2-2	WE24	No	Unevaluated Wetland	N/A	no
34	WT_16.1	34854.4903	34869.7944	15.3041	0	Credit River	WTB 23	MAM2-2	WE24	No	Unevaluated Wetland	Unknown drainage (WC 66)	No No
35	WT 15.1	35089.0233	35092.3349	3.3116	0	Credit River	WTB 24	MAM2-2	WE24	No	Unevaluated Wetland	N/A	no
36	WT_15.2	35117.1571	35131.5426		0	Credit River	WTB_24	MAM2-2	WE24	No	Unevaluated Wetland	N/A	no
37	WT_19	35197.6579	35210.4571	12.7992	0	Credit River	WTB_25	MAM2-2	WE24	No	Unevaluated Wetland	N/A	no
38	WT_18	35277.9783	35311.8264	33.8481	0	Credit River	WTB_26	MAM2-2	WE24	No	Unevaluated Wetland	N/A	no
39	WT_47	36250			1.5	Credit River	WTB_53	MAS2-1	WE25	No	Unevaluated Wetland	Mary Fix Creek Tributaries 2A and 2B	No
40	WT_20	36525.6088	36556.3129		0	Credit River	WTB_27	MAS2	WE26	No	Unevaluated Wetland	N/A	no
41 42	WT_21	39910.2034	39940.3157	30.1123	0	Cooksville Creek	WTB_28	MAM2-10 MAS2-1 / MAM2-2	WE28	No	Unevaluated Wetland	N/A	no
43	WT_22 WT 23	40293.6298 40491.9993	40341.2529 40540.7165		0	Etobicoke Creek  Etobicoke Creek	WTB_29 WTB 30	MAS2-1 / MAM2-2 MAS2-1 / MAM2-2	WE30 WE30	No No	Unevaluated Wetland Unevaluated Wetland	N/A N/A	no no
44	WT_25	41200.8507	41444.4874		0	Etobicoke Creek	WTB_31	MAS2-1 / MAM2	WE31	No	Unevaluated Wetland	Little Etobicoke Creek	Yes, at high water, where connected to watercourse
45	WT_48	41686.55727			10	Etobicoke Creek	WTB_54	MAS2-1	WE31	No	Unevaluated Wetland	N/A	no
46	WT_51	42935.5543	42944.8341	9.2798	0	Etobicoke Creek	WTB_73	MAS2-2	WE32	No	Unevaluated Wetland	Wetland 14	No
47	WT_27	45086.8037	45097.3977	10.594	0	Etobicoke Creek	WTB_38	MAM2-2	WE33	No	Unevaluated Wetland	Elmcrest Creek Tributary	No
48	WT_49	45350			0.5	Etobicoke Creek	WTB_59	Marsh	WE47	Yes	Centennial Park Wetland Complex	N/A	
49	WT_39	45462.2429	45542.695	80.4521	0	Etobicoke Creek	WTB_39	SAS, Open Water, MAM2-1	WE47	Yes	Centennial Park Wetland Complex	Renforth Creek	Yes
50	WT_28	48514.4696	48914.3584		0	Mimico Creek	WTB_40	MAM	WE35	No	Unevaluated Wetland	Mimico Creek	No, no connectivity to stream
51	WT_29	49518.2721	49650	131.727898		Mimico Creek	WTB_41	MAM (Phragmites)	WE36	No	Unevaluated Wetland	N/A	no
52	WT_30	52802.5027	52814.9742	12.4715	0	Humber River	WTB_42	MAS2	WE38	No	Unevaluated Wetland	Berry Creek Tributary	No No
53	WT_43	54500	EE200 541	04.0700	8	Humber River	WTB_57	SWD4-1	WE39	No	Unevaluated Wetland	West Humber River	Yes, at high water, where connected to watercourse
54 55	WT_31	55208.1627 59982.299	55302.541 59998.459	94.3783 16.16	0	Humber River Humber River	WTB_44 WTB 48	MAM2-2 MAS2-1 / MAM2-2	WE39 WE2	No No	Unevaluated Wetland Unevaluated Wetland	Humber River Black Creek Tributary	Unlikely, only at very high water
	WT_32	J3802.288	Jaaa0.409	10.10	U	Humber Kivel	VV I D_48	IVIAOZ-1 / IVIAIVIZ-Z	VVEZ	INU	Onevaluated welldlid	DIAGN CIEEN TIDULALY	Yes, at high water, where connected to watercourse

Table F-3: Wetland Crossings

Table F-3: W	etland Crossings										
Ouder Meet to			DAD (i.e. timing window when you CANIT			Trenchless	Trenchless	Trenchless			
order West to ast	SAR	SAR Description	RAP (i.e., timing window when you CAN'T work)	Land Use	Construction Method	Installation Begin Station	Installation End Station	Installation Length (m)	CA	MNRF Region	Municipality (Upper Tier)
131	No (butternut found in woodlands along	OAR Description	April 1-June 30 (fish)	wooded area	open cut	no data	no data	Length (III)	Hamilton	Guelph	City of Hamilton
	corridor) Yes (Blanding's turtle)	Blanding's turtle: Class 2, General Habitat	March 15-June 30 (fish); May to October	wooded area	horizontal directional drill	2367.818302	2777.769502	409.9512	Halton	Guelph	City of Hamilton
	. ,	leffers on a class and an Developed Hebitati	(turtle)		hariman Allahar Alamah dalih	4000 004400	0000 500000	1000 0070	11-16	·	•
	Yes (Jefferson salamander, Blanding's turtle)	Jefferson salamander: Regulated Habitat; Blanding's turtle: Class 2, General Habitat	April 1-June 30 (fish); May to October (turtle); April to October (JESA)	wooded area	horizontal directional drill	4996.631102	6926.529002	1929.8979	Halton	Guelph/Aurora	City of Hamilton/Region of Halton
	Yes (Jefferson salamander, Blanding's turtle)	Jefferson salamander: Regulated Habitat; Blanding's turtle: Class 2. General Habitat	April 1-June 30 (fish); May to October (turtle); April to October (JESA)	wooded area	horizontal directional drill	4996.631102	6926.529002	1929.8979	Halton	Aurora	Region of Halton
1	No	Blanding 5 turue. 01035 2, General Hushat	April 1-June 30 (fish)	wooded area					Halton	Aurora	Region of Halton
	Potential (Jefferson salamander)	just outside of Regulated Habitat	April 1-June 30 (fish)	agriculture	horizontal directional drill	7144.308402	7530.923602	386.6152	Halton	Aurora	Region of Halton
	Yes (Jefferson salamander)	Regulated Habitat	April to October (JESA)	agriculture	bore	8015.564502	8100.908502	85.344	Halton	Aurora	Region of Halton
	Yes (bobolink)			agriculture	open cut	no data	no data		Halton	Aurora	Region of Halton
	Maybe (American eel), Unlikely (silver shiner)	no info from MNRF	April 1-June 30 (fish)	agriculture	орон ош	no data	110 data		Halton	Aurora	Region of Halton
0	Ma			a mia ultura	anan aut		no dete		Lielton	A.,,,,,	Danien of Helton
1	No Yes (American eel, silver shiner); potential	General habitat for both: verbal from MNRF, no	September 15 to July 1 (fish)	agriculture wooded area	open cut horizontal directional drill	no data 12488.595	no data 13183.7962	695.2012	Halton Halton	Aurora Aurora	Region of Halton Region of Halton
	Blanding's turtle overwintering habitat	mapping available	September 10 to daily 1 (lish)					030.2012			<u> </u>
2	No			agriculture	open cut	no data	no data		Halton	Aurora	Region of Halton
3	No			agriculture	open cut	no data	no data		Halton	Aurora	Region of Halton
4	No			agriculture	horizontal directional drill	21901.3388	22651.3389	750.0001	Halton	Aurora	Region of Halton
5	Yes (American eel, silver shiner)	General habitat for both: verbal from MNRF, no mapping available	September 15 to July 1 (fish)	agriculture	horizontal directional drill	21901.338802	22651.338902	750.0001	Halton	Aurora	Region of Halton
6	No	11 3		industrial	horizontal directional drill	26728.1012	27973.1013	1245.0001	Credit Valley	Aurora	Region of Halton
7	No			industrial	horizontal directional drill	26728.1012	27973.1013	1245.0001	Credit Valley	Aurora	Region of Halton
8	No			industrial	horizontal directional drill	26728.1012	27973.1013	1245.0001	Credit Valley	Aurora	Region of Halton
9	No No			industrial	horizontal directional drill	26728.1012	27973.1013	1245.0001	Credit Valley	Aurora	Region of Halton
0	No No			agriculture	horizontal directional drill / open cut	26728.1012	27973.1013	1245.0001	Credit Valley	Aurora	Peel Region
1	No No			suburbia	open cut	no data	no data		Credit Valley	Aurora	Peel Region
2	No No			suburbia	open cut	no data	no data		Credit Valley	Aurora	Peel Region
3	No			suburbia	open cut	no data	no data		Credit Valley	Aurora	Peel Region
4	No			suburbia	open cut	no data	no data		Credit Valley	Aurora	Peel Region
5	No			suburbia	open cut	no data	no data		Credit Valley	Aurora	Peel Region
6	No			suburbia	horizontal directional drill	29097.9323	29887.9319	789.9996	Credit Valley	Aurora	Peel Region
7 8	No Probably (American eel)	no info from MNRF	September 15 to July 15 (fish)	suburbia suburbia	horizontal directional drill horizontal directional drill	29097.9323 31881.8006	29887.9319 32243.8007	789.9996 362.0001	Credit Valley Credit Valley	Aurora Aurora	Peel Region Peel Region
9	No			suburbia	horizontal directional drill / open cut	31881.8006	32243.8007	362.0001	Credit Valley	Aurora	Peel Region
0	No			wooded area	open cut	no data	no data	002.0001	Credit Valley	Aurora	Peel Region
1	No			wooded area					Credit Valley	Aurora	Peel Region
2	No			suburbia					Credit Valley	Aurora	Peel Region
3	No			suburbia	open cut	no data	no data		Credit Valley	Aurora	Peel Region
4	No		n/a	suburbia	open cut	no data	no data		Credit Valley	Aurora	Peel Region
5	No		.,	suburbia	open cut	no data	no data		Credit Valley	Aurora	Peel Region
6	No			suburbia	open cut	no data	no data		Credit Valley	Aurora	Peel Region
7	No			suburbia	open cut	no data	no data		Credit Valley	Aurora	Peel Region
8	No			suburbia	open cut	no data	no data		Credit Valley	Aurora	Peel Region
9	No			suburbia	'				Credit Valley	Aurora	Peel Region
0	No			suburbia	open cut	no data	no data		Credit Valley	Aurora	Peel Region
1	No			suburbia	horizontal directional drill	39716.116	40366.0837	649.9677	Credit Valley	Aurora	Peel Region
2	No			light industrial / suburbia	horizontal directional drill	39716.116	40366.0837	649.9677	TRCA	Aurora	Peel Region
13	No	<u> </u>		light industrial / suburbia	open cut	no data	no data		TRCA	Aurora	Peel Region
14	Maybe (American eel)	no info from MNRF	March 15 to July 15 (fish)	light industrial / suburbia	horizontal directional drill	40820.4098	41510.3981	689.9883	TRCA	Aurora	Peel Region
15	No			light industrial / suburbia					TRCA	Aurora	Peel Region
6	No			light industrial / suburbia	horizontal directional drill	42883.6772	43253.7043	370.0271	TRCA	Aurora	Peel Region
7	No			golf course	horizontal directional drill	43872.8575	45652.5847	1779.7272	TRCA	Aurora	City of Toronto
8				suburbia					TRCA	Aurora	City of Toronto
19	Unlikely (American eel)	no info from MNRF	March 15 to July 15 (fish)	recreational park	horizontal directional drill	43872.8575	45652.5847	1779.7272	TRCA	Aurora	City of Toronto
50	No, redside dace in watercourse but no connectivity to wetland	ARA data; no info from MNRF		light industrial	horizontal directional drill	48392.9796	49103.4769	710.4973	TRCA	Aurora	City of Toronto
51	No			light industrial	open cut	no data	no data		TRCA	Aurora	City of Toronto
52	No			suburbia	open cut	no data	no data		TRCA	Aurora	City of Toronto
53	Yes (redside dace, American eel)	ARA data; no info from MNRF	September 15 to July 15 (fish)	wooded area	·				TRCA	Aurora	City of Toronto
54	No			wooded area	horizontal directional drill	54775.2666	55430.282	655.0154	TRCA	Aurora	City of Toronto
	Maybe (redside dace)	no info from MNRF	September 15 to July 15 (fish)	urban	horizontal directional drill	59933.5039	60768.3511	834.8472	TRCA	Aurora	City of Toronto
55	Maybe (redside dace)	no info from MNRF	September 15 to July 15 (fish)								

Table F-3: Wetland Crossings

Order West to		
East	Municipality (Lower Tier)	Vehicle Equipment Crossing
	City of Hamilton	Limit temporary workspace and matting
	City of Hamilton	Drive around
	City of Hamilton/City of Burlington	Drive around
	City of Burlington	Drive around
<u> </u>	City of Burlington	Drive around (preferred), or limit temporary workspace and matting
;	City of Burlington	Drive around
,	City of Burlington	Limit temporary workspace and matting
}	City of Burlington	Limit temporary workspace and matting
<u> </u>	City of Burlington	Limit temporary workspace and matting
0	City of Burlington	Limit temporary workspace and matting
1	City of Burlington	Drive around
2	Town of Milton	Drive around
3	Town of Oakville	Limit temporary workspace and matting
4	Town of Milton	Limit temporary workspace and matting
5	Town of Milton	Drive around
6	Town of Milton	Limit temporary workspace and matting
7	Town of Milton	Limit temporary workspace and matting
8	Town of Milton	Limit temporary workspace and matting
9	Town of Milton	Limit temporary workspace and matting
0	City of Mississauga	Limit temporary workspace and matting
1	City of Mississauga	Limit temporary workspace and matting
2	City of Mississauga	Limit temporary workspace and matting
3	City of Mississauga	Limit temporary workspace and matting
4	City of Mississauga	Limit temporary workspace and matting
25	City of Mississauga	Limit temporary workspace and matting
26	City of Mississauga	Limit temporary workspace and matting
27	City of Mississauga	Limit temporary workspace and matting
28	City of Mississauga	Drive around
29	City of Mississauga	Limit temporary workspace and matting
30	City of Mississauga	Limit temporary workspace and matting
31	City of Mississauga	Limit temporary workspace and matting
2	City of Mississauga	Limit temporary workspace and matting
3	City of Mississauga	Limit temporary workspace and matting
4	City of Mississauga	Limit temporary workspace and matting
35	City of Mississauga	Limit temporary workspace and matting
36 37	City of Mississauga City of Mississauga	Limit temporary workspace and matting
8	City of Mississauga  City of Mississauga	Limit temporary workspace and matting Limit temporary workspace and matting
9	City of Mississauga  City of Mississauga	Limit temporary workspace and matting  Limit temporary workspace and matting
0	City of Mississauga  City of Mississauga	Limit temporary workspace and matting  Limit temporary workspace and matting
1	City of Mississauga	Limit temporary workspace and matting
2	City of Mississauga	Limit temporary workspace and matting
.3	City of Mississauga	Limit temporary workspace and matting
4	City of Mississauga	Drive around
15	City of Mississauga	Limit temporary workspace and matting
6	City of Mississauga	Limit temporary workspace and matting
7	City of Toronto	Drive around
8	City of Toronto	Drive around
9	City of Toronto	Drive around
0	City of Toronto	Drive around
1	City of Toronto	Limit temporary workspace and matting
52	City of Toronto	Drive around, or limit temporary workspace and matting
53	City of Toronto	Drive around
54	City of Toronto	Drive around
55	City of Toronto	
,,,	Only of Toronto	Drive around



Order West to									
East	Crossing ID	Crossing Station	Watershed	Watercourse	Watercourse Type	Fishbearing	Fish Habitat Classification	Wetland ID	Wetland Description
	WC_61	0+641	Rock Chapel Creek	Borer's Creek Tributary 1	stream	yes	3	WTB_1	Unevaluated wetland (MAM/SWM) intersects site
	WC_60	0+715	Rock Chapel Creek	Borer's Creek Tributary 2	stream	yes	3	WTB_1	Unevaluated wetland (MAM/SWM) intersects site
	WC_1.1	2+456	Grindstone Creek	Grindstone Creek	stream	yes	2	WTB_2	Lake Medad Valley Wetland Complex (MAM2-2/MAM2-10) intersects site
	WC_1.2	2+493	Grindstone Creek	Grindstone Creek	stream	yes	2	WTB_2	Lake Medad Valley Wetland Complex (MAM2-2/MAM2-10) intersects site
	WC_65	3+509	Grindstone Creek	Trib to Grindstone Creek Tributary	stream	yes	3		None
	WC_2.1	3+614	Grindstone Creek	Grindstone Creek Tributary	stream	yes	2		None
	WC_90	4+369	Grindstone Creek	Medad Tributary East Branch Tributary 1	non-classified drainage	no	4		None
)	WC_72	4+451	Grindstone Creek	Medad Tributary East Branch Tributary 2	stream	yes	3		None
1	WC_91	5+158	Grindstone Creek	Lake Medad Tributary 2A	stream	yes	3	WTB_3	Lake Medad Valley Wetland Complex (MAM/SWD) intersects site
2	WC_92	5+364	Grindstone Creek	Lake Medad Tributary 2B	non-classified drainage	no	4	WTB_3	Lake Medad Valley Wetland Complex (MAM/SWD) intersects site
3	WC_95	5+694	Grindstone Creek	Lake Medad Tributary	stream	yes	3	WTB_3	Lake Medad Valley Wetland Complex (MAM/SWD) intersects site
4	WC_3.1	5+882	Grindstone Creek	Lake Medad Tributary	stream	yes	3		None
5	WC_64	6+365	Grindstone Creek	Tributary to Lake Medad Tributary	stream	yes	3	WTB_49	Unevaluated wetlands (both SWD2-2) to either side of site, connected by watercourse
7	WC_4.1	7+258	Grindstone Creek	Mt Nemo Tributary 2B	stream	yes	2	WTB_4	Grindstone Creek Headwaters Wetland Complex (MAM/SWD) intersects sit
0	WC_5.1	8+041	Grindstone Creek	Mt Nemo Tributary 2A	non-classified drainage	no	4	WTB_5	Grindstone Creek Headwaters Wetland Complex (MAM/SWD) intersects sit
1	WC_73	8+568	Grindstone Creek	Mt Nemo Tributary 1A	non-classified drainage	no	4		None
1 2	WC 6.1	8+681	Grindstone Creek	Mt Nemo Tributary 1	non-classified drainage	no	4	WTB_6	Unevaluated wetland (MAM/MASF) intersects site
	WC_71	9+992	Bronte Creek	Bronte Creek Tributary 2Bc	stream	yes	3		None
1	WC_68	10+287	Bronte Creek	Bronte Creek Tributary 2Bb	stream	yes	3		None
5	WC_7.1	10+503	Bronte Creek	Bronte Creek Tributary 2Ba	stream	yes	3	WTB_65, WTB_66	Unevaluated wetlands (both MAM2) up- and downstream of site
6	WC_7.2	10+518	Bronte Creek	Bronte Creek Tributary 2Ba	stream	yes	3	WTB_65,	Unevaluated wetlands (both MAM2) up- and downstream of site
7	WC_74	10+866	Bronte Creek	Bronte Creek Tributary 2Bd1	stream	no	3	WTB_66	None
3	WC_75	10+877	Bronte Creek	Bronte Creek Tributary 2Bd	stream	yes	3		None
)	WC_8.1	11+440	Bronte Creek	Bronte Creek Tributary 2B	ditch	yes	2	WTB_50	Unevaluated wetland (MAM2-10) forms floodplain
)	WC_76	11+523	Bronte Creek	Bronte Creek Tributary 2Be	stream	yes	3	WTB_50	Unevaluated wetland (MAM2-10) partially overlaps with watercourse
1	WC_99	11+679	Bronte Creek	Bronte Creek Tributary 2Ca	non-classified drainage	no	4		None
2	WC 100	11+717	Bronte Creek	Bronte Creek Tributary 2Cb	non-classified drainage	no	4		None
	WC_9.1	12+137	Bronte Creek	Bronte Creek Tributary 2A	stream	yes	3		None
i	WC_77	12+479	Bronte Creek	Bronte Creek Tributary 2A	stream	yes	3	WTB_68	Unevaluated wetland (SWT259) just upstream
3	WC_10.1	13+023	Bronte Creek	Bronte Creek	stream	yes	1	WTB_8	Unevaluated wetland (MAM 2-10) forms floodplain
7	WC_78	13+130	Bronte Creek	Appleby Line Ditch North	stream	no	4		None
3	WC_11.1	13+694	Bronte Creek	Bronte Creek Tributary 1B	non-classified drainage	no	4	1	None
9	WC_11.1	13+785	Bronte Creek	Bronte Creek Tributary 1A	non-classified drainage	no	4		None
-							· ·	<del> </del>	
0	WC_79	14+572	Bronte Creek	Bronte Creek Tributary 3	non-classified drainage	no	4		None

Table F-4: Wa	tercourse Cro	ssings		T	ı	1	T		1
Order West to									
East	Crossing ID	Crossing Station	Watershed	Watercourse	Watercourse Type	Fishbearing	Fish Habitat Classification	Wetland ID	Wetland Description
42	WC_81	14+842	Bronte Creek	Bronte Creek Tributary 4B	non-classified drainage	no	4		None
43	WC_82	14+952	Bronte Creek	Bronte Creek Tributary 5	non-classified drainage	no	4		None
44	WC_83	15+824	Bronte Creek	Bronte Creek Tributary 6	non-classified drainage	no	4		None
45	WC_67	17+365	Sixteen Mile Creek	Unknown	non-classified drainage	no	4		None
47	WC_13.1	18+964	Sixteen Mile Creek	Sixteen Mile Creek Tributary 1	stream	no	4		None
48	WC_13.2	19+024	Sixteen Mile Creek	Sixteen Mile Creek Tributary 1	stream	no	4		None
49	WC_14.1	19+222	Sixteen Mile Creek	Sixteen Mile Creek Tributary 2	stream	no	4		None
50	WC_15.1	19+557	Sixteen Mile Creek	Sixteen Mile Creek	stream	yes	1	WTB_60	Unevaluated wetland (MAM2) forms floodplain just upstream
52	WC_16.1	20+014	Sixteen Mile Creek	Sixteen Mile Creek Tributary 3	stream	yes	3		None
54	WC_17.1	20+778	Sixteen Mile Creek	East Sixteen Mile Creek Tributary 2B	culverted	no	4		None
55	WC_52	21+120	Sixteen Mile Creek	East Sixteen Mile Creek Tributary 2A	non-classified drainage	no	4		None
56	WC_63	21+745	Sixteen Mile Creek	East Sixteen Mile Creek Tributary 3	non-classified drainage	no	4		None
57	WC_18.1	22+383	Sixteen Mile Creek	East Sixteen Mile Creek	stream	yes	1	WTB_75, WTB_76	Unevaluated wetland (MAM2) forms floodplain to either side upstream of site
58	WC_19.1	22+773	Sixteen Mile Creek	East Sixteen Mile Creek Tributary 1B	stream	yes	3		None
59	WC_20.1	22+847	Sixteen Mile Creek	East Sixteen Mile Creek Tributary 1A	stream	yes	3		None
60	WC_58	23+015	Sixteen Mile Creek	East Sixteen Mile Creek Tributary 1A	non-classified drainage	no	4		None
61	WC_21.1	24+986	Joshua Creek	Joshua Creek Tributary 3B	stream	yes	3		None
62	WC_84	25+050	Joshua Creek	Joshua Creek Tributary 3Ba	stream	yes	3		None
63	WC_85	25+190	Joshua Creek	Joshua Creek Tributary 3A	non-classified drainage	no	4	WTB_64	Unevaluated wetland (MAS3-1) with connectivity downstream
64	WC_22.1	25+224	Joshua Creek	Joshua Creek Tributary 3A	non-classified drainage	no	4	WTB_64	Unevaluated wetland (MAS3-1) with connectivity downstream
65	WC_23.1	25+406	Joshua Creek	Joshua Creek Tributary 3A	non-classified drainage	no	4	WTB_64	Unevaluated wetland (MAS3-1) with connectivity upstream
66	WC_86	25+441	Joshua Creek	Joshua Creek Tributary 3Aa	non-classified drainage	no	4		None
67	WC_23.2	25+594	Joshua Creek	Joshua Creek Tributary 3A	non-classified drainage	no	4		None
68	WC_24.2	25+821	Joshua Creek	Joshua Creek Tributary 2	non-classified drainage	no	4		None
69	WC_24.1	25+891	Joshua Creek	Joshua Creek Tributary 2	non-classified drainage	no	4		None
70	WC_87	25+933	Joshua Creek	Joshua Creek Tributary 2A	stream	yes	3		None
71	WC_25.1	26+412	Joshua Creek	Joshua Creek Tributary 1	non-classified drainage	no	4		None
72	WC_165	27+357	Unknown	Unnamed Swale 1	stream	yes	3		None
73	WC_140	28+313	Sawmill Creek	Glen Erin Brook	stream	yes	3		None
74	WC_166	29+955	Sawmill Creek	Sawmill Creek Tributary 1	stream	yes	3		None
75	WC_167	30+572	Sawmill Creek	Sawmill Creek	stream	yes	3		None
76	WC_26.1	32+085	Credit River	Mullet Creek	stream	yes	2	WTB_19	Unevaluated wetland (MAM 2-2) forms floodplain to either side
77	WC_28.2	33+529	Credit River	Credit River Tributary	non-classified drainage	no	4	WTB_52	Unevaluated wetland (MAM2-2) upstream
78	WC_28.3	33+589	Credit River	Credit River Tributary	non-classified drainage	no	4	WTB_52	Unevaluated wetland (MAM2-2) upstream
	1	1	1		1		1	1	1

	atercourse Cro								
Order West to East	Crossing ID	Crossing Station	Watershed	Watercourse	Watercourse Type	Fishbearing	Fish Habitat Classification	Wetland ID	Wetland Description
79	WC_168	34+669	Credit River	Chapell Creek Tributary 2	stream	yes	3		
80	WC_66	34+866	Credit River	Unknown	non-classified drainage	no	4	WTB_23	Unevaluated wetland (MAM2-2) intersects site
81	WC_62	34+968	Credit River	Unknown	stream	no	4		None
82	WC_169	35+202	Credit River	Unnamed Swale 2	stream	yes	3		Unevaluated wetland (MAM2-2) intersects site
83	WC_170	35+289	Credit River	Unnamed Swale 3	stream	yes	3	WTB_25	Unevaluated wetland (MAM2-2) intersects site
84	WC_29.1	36+165	Credit River	Mary Fix Creek	culverted	no	4	WTB_26	None
85	WC_30.1	36+274	Credit River	Mary Fix Creek Tributary 2B	stream	no	4	WTB_53	Unevaluated wetland (MAS2-1) immediately downstream of site
86	WC_31.1	36+283	Credit River	Mary Fix Creek Tributary 2A	culverted	no	4	WTB_53	Unevaluated wetland (MAS2-1) immediately downstream of site; disconnected
87	WC_32.1	36+421	Credit River	Mary Fix Creek Tributary 1B	stream	no	4		as watercourse is culverted None
88	WC_33.1	36+495	Credit River	Mary Fix Creek Tributary 1A	stream	no	4		None
89	WC_34.1	36+875	Cooksville Creek	Cooksville Creek Tributary 4B	stream	no	4		None
90	WC_35.1	37+088	Cooksville Creek	Cooksville Creek Tributary 4A	stream	no	4		None
91	WC_36.1	37+348	Cooksville Creek	Cooksville Creek Tributary 3	culverted	no	4		None
92	WC_37.1	37+789	Cooksville Creek	Cooksville Creek	stream	yes	2		None
93	WC_38.1	37+911	Cooksville Creek	Cooksville Creek Tributary 2	stream	yes	3		None
94	WC_39.1	39+087	Cooksville Creek	Cooksville Creek Tributary 1	stream	no	4		None
95	WC_40.1	41+304	Etobicoke Creek	Little Etobicoke Creek	stream	yes	2	WTB_31	Unevaluated wetland (MAS2-1/MAM2) forms floodplain to either side
96	WC_69	42+937	Etobicoke Creek	Wetland 14	non-classified drainage	no	4	WTB_79,	Unevaluated wetland (MAS2-1) overlaps with site and another upstream of sit
97	WC_41.1	44+092	Etobicoke Creek	Etobicoke Creek	stream	yes	1	WTB_80 WTB_71	Unevaluated wetland (unknown vegetation community) forms floodplain
98	WC_42.1	44+619	Etobicoke Creek	Elmcrest Creek	stream	yes	3	WTB_72	downtream of site  Unevaluated wetland (open water/marsh), i.e., unnamed lake, downstream of
99	WC_43.1	45+080	Etobicoke Creek	Elmcrest Creek Tributary	non-classified drainage	no	4	WTB_38	site Unevaluated wetland (MAM2-2) intersects site
100	WC_44.1	45+490	Etobicoke Creek	Renforth Creek	stream	yes	2	WTB_39	Centennial Park Wetland Complex (open water/marsh/MAS2-1), i.e. "Renforth
101	WC_45.1	48+578	Mimico Creek	Mimico Creek	stream	yes	2	WTB_40	Pond", intersects site Unevaluated wetland (MAM) intersects site, but no connectivity
102	WC_53.1	52+816	Humber River	Berry Creek Tributary	stream	no	4	WTB_42	Unevaluated wetland (MAS) (Phragmites)intersects site
103	WC_46.1	53+424	Humber River	Berry Creek	stream	yes	2		None
104	WC_47.1	54+542	Humber River	West Humber River	stream	yes	1	WTB_57	Unevaluated wetland (SWD4-1) forms floodplain
105	WC_89	54+773	Humber River	Tributary to Humber River	non-classified drainage	no	4		None
106	WC_56	55+007	Humber River	Humber River	stream	yes	1	WTB_61, WTB_44,	Unevaluated wetlands (MAM2-2 and unknown vegetation communities) form floodplain downstream of site
107	WC_57	56+036	Humber River	Emery Creek	stream	yes	2	WTB_62	None
108	WC_54	56+106	Humber River	Emery Creek	stream	yes	2		None
109	WC_55	56+325	Humber River	Emery Creek	stream	yes	2	WTB_70	None
110	WC_49.1	56+464	Humber River	Emery Creek	stream	yes	2	WTB_69	None
		33 101			Subain	,00	_	b_00	TOTO

Order West to									
East	Crossing ID	<b>Crossing Station</b>	Watershed	Watercourse	Watercourse Type	Fishbearing	Fish Habitat Classification	Wetland ID	Wetland Description
112	WC_70	57+270	Humber River	Emery Creek Tributary	non-classified drainage	no	4		None
113	WC_50.1	59+992	Humber River	Black Creek Tributary	stream	yes	2	WTB_48	Unevaluated wetland (MAS2-1/MAM2-2) forms floodplain at site
114	WC_51.2	60+272	Humber River	Black Creek	stream	yes	1	WTB_63	Unevaluated wetland (MAM2) forms floodplain just upstream
115	WC_51.1	60+294	Humber River	Black Creek	stream	yes	1	WTB_63	Unevaluated wetland (MAM2) forms floodplain just upstream

Tubio 1 4: Watere	course Crossings		T	1		1	T =			
Order West to			Channel	Riparian Width		Construction	Trenchless Installation Begin	Trenchless Installation End	Trenchless Installation	
East	Fishbearing (wetland)	SAR	Width (m)	(m)	Land Use	Method	Station	Station	Length (m)	CA
1	Yes, at high water, where connected to watercourse	No	0.3	>50	agriculture	open cut	Station	Station	Lengui (III)	Hamilton
2	Yes, at high water, where connected to watercourse	No (butternut found in woodlands along corridor)	1	>100	agriculture	open cut				Hamilton
3	Yes, at high water, where connected to watercourse	Yes (Blanding's turtle)	5	>50	agriculture	horizontal directional	2+368	2+778	410	Halton
4	Yes, at high water, where connected to watercourse	5	>50	agriculture	drill horizontal directional	2+368	2+778	410	Halton	
5	Not applicable	Yes (Blanding's turtle)	<5	5	agriculture	drill open cut				Halton
7	Not applicable	Yes (Blanding's turtle)	4.4	5-10	agriculture	horizontal directional	3+547	3+791	244	Halton
•	Not applicable	Yes (Blanding's turtle), Potential (Jefferson salamander)	<5	10-30	agriculture	drill open cut	0.011	0.101	211	Halton
0		,				·				
10	Not applicable	Yes (Blanding's turtle), Potential (Jefferson salamander)	<5	7	agriculture	open cut				Halton
11	Unknown	Yes (Jefferson salamander, Blanding's turtle)	<5	>30	undeveloped	horizontal directional drill	4+997	6+927	1,930	Halton
12	Unknown	Yes (Jefferson salamander, Blanding's turtle)	<5	>30	undeveloped	horizontal directional drill	4+997	6+927	1,930	Halton
13	Unknown	Potential (Jefferson salamander, Blanding's turtle)	<5	>30	undeveloped	horizontal directional drill	4+997	6+927	1,930	Halton
14	Not applicable	No	3.8	0	agriculture	horizontal directional	4+997	6+927	1,930	Halton
15	Yes, at high water, where connected to watercourse	No	<5	>30	agriculture	horizontal directional	4+997	6+927	1,930	Halton
17	Yes, at high water, where connected to watercourse	Potential (Jefferson salamander)	1.9	>50	agriculture	bore	7+144	7+531	387	Halton
20	No	Yes (Jefferson salamander)	<5	>30	agriculture	bore	8+016	8+101	85	Halton
21	Not applicable	Potential (Jefferson salamander)	<5	0	agriculture	open cut				Halton
22	No	Yes (bobolink)	<5	10	agriculture	open cut				Halton
23	Not applicable	Unlikely (American eel, silver shiner)	2	>30	undeveloped	open cut				Halton
24	Not applicable	Maybe (American eel); Unlikely (silver shiner)	<5	>30	agriculture	open cut				Halton
25	Yes, at high water, where connected to watercourse	Maybe (American eel), Unlikely (silver shiner)	<5	>100	agriculture	open cut				Halton
26	Yes, at high water, where connected to watercourse	Maybe (American eel), Unlikely (silver shiner)	<5	>100	agriculture	open cut				Halton
27	Not applicable	No	<5	<5	agriculture	open cut				Halton
28	Not applicable	Unlikely (American eel, silver shiner)	<5	<5	agriculture	open cut				Halton
29	Yes, at high water, where connected to watercourse	Maybe (American eel), Unlikely (silver shiner)	2.4	15-50	agriculture	open cut				Halton
30	Yes, at high water, where connected to watercourse	Maybe (American eel), Unlikely (silver shiner)	<5	5	agriculture	open cut				Halton
31	Not applicable	No	23	0	agriculture	open cut				Halton
32	Not applicable	No	7	0	agriculture	open cut				Halton
33	Not applicable	Unlikely (American eel, silver shiner)	4.1	15-50	agriculture	open cut				Halton
35	Yes, at high water, where connected to watercourse	Unlikely (American eel, silver shiner)	<5	20	agriculture	open cut				Halton
36	Yes, at high water, where connected to watercourse	Yes (American eel, silver shiner); potential Blanding's turtle overwintering habitat	20	>100	undisturbed	horizontal directional drill	12+489	13+184	695	Halton
37	Not applicable	No No	<5	<5	agriculture	horizontal directional	12+489	13+184	695	Halton
38	Not applicable	No	<5	0	agriculture	open cut				Halton
39	Not applicable	No		0	agriculture	open cut				Halton
40	Not applicable	No	<5	0	agriculture	open cut				Halton
41	Not applicable	No	<5	0	agriculture	open cut		T		Halton

							Translates	Translates	Translates	
Order West to			Channel	Riparian Width		Construction	Trenchless Installation Begin	Trenchless Installation End	Trenchless Installation	
	Fighhaging (wetland)	CAR		1 -	Landllas					CA
East	Fishbearing (wetland)	SAR	Width (m)	(m)	Land Use	Method	Station	Station	Length (m)	
42	Not applicable	No No	<5	0	agriculture	open cut				Halton
43 44	Not applicable	No No	<5	0	agriculture	open cut				Halton
	Not applicable	No	<5	0	agriculture	open cut				Halton
45 47	Not applicable	No No	<5	<5	agriculture	open cut				Halton
47	Not applicable	No	0.3	>100	agriculture	open cut				Halton
48	Not applicable	No	0.3	>100	agriculture	open cut				Halton
49	Not applicable	No	1	>100	agriculture	open cut				Halton
50	Yes, at high water, where connected to watercourse	Yes (American eel, silver shiner)	14	>100	undisturbed	horizontal directional drill	19+433	19+873	440	Halton
52	Not applicable	Unlikely (American eel, silver shiner)	0.4	<5	agriculture	open cut				Halton
54	Not applicable	No	<5	0	golf course	orizontal directional di	20+567	21+227	659	Halton
55	Not applicable	No	<5	0	agriculture	orizontal directional dr	20+567	21+227	659	Halton
56	Not applicable	No	<5	0	agriculture	open cut				Halton
57	Yes, at high water, where connected to watercourse	Yes (American eel, silver shiner)	20	>100	undisturbed	horizontal directional	21+901	22+651	750	Halton
58	Not applicable	Unlikely (American eel, silver shiner)	0.3	>100	agriculture	drill open cut				Halton
59	Not applicable	Unlikely (American eel, silver shiner)	1	30->100	agriculture	open cut				Halton
60	Not applicable	No	<5	0	agriculture	open cut				Halton
61	Not applicable	No	1.9	0	agriculture	open cut				Halton
62	Not applicable	No	<5	0	agriculture	open cut				Halton
63	No	No	<5	0	agriculture	open cut				Halton
64	No	No	<5	0	agriculture	open cut				Halton
65	No	No	<5	0	agriculture	open cut				Halton
66	Not applicable	No	<5	0	agriculture	open cut				Halton
67	Not applicable	No	<5	0	agriculture	open cut				Halton
68	Not applicable	No	<5	0	agriculture	open cut				Halton
69	Not applicable	No	<5	0	agriculture	open cut				Halton
70	Not applicable	No	<5	<5	agriculture	open cut				Halton
71	Not applicable	No	<5	0	agriculture	open cut				Halton
72	Not applicable	No	<5	5	agriculture	horizontal directional drill	26+728	27+973	1,245	Credit Valley
73	Not applicable	No	<5	5	suburbia	horizontal directional drill	28+294	28+368	73	Credit Valley
74	Not applicable	No	<5	5	suburbia	open cut				Credit Valley
75	Not applicable	No	<5	5	suburbia	open cut				Credit Valley
76	Yes, at high water, where connected to watercourse	Probably (American eel)	5	15	suburbia	horizontal directional	31+882	32+244	362	Credit Valley
77	No	No	<5	>30	suburbia	horizontal directional	33+428	33+683	255	Credit Valley
78	No	No	<5	>30	suburbia	drill horizontal directional	33+428	33+683	255	Credit Valley

	rcourse Crossings						Trenchless	Trenchless	Trenchless	
Order West to			Channel	Riparian Width		Construction	Installation Begin	Installation End	Installation	
East 79	Fishbearing (wetland)	SAR	Width (m)	(m)	Land Use	Method	Station	Station	Length (m)	CA
<sup>79</sup>		No	<5	5	suburbia	open cut				Credit Valley
30	No	No	<5	>30	suburbia	open cut				Credit Valley
31	Not applicable	<5	>30	suburbia	open cut				Credit Valley	
32	Yes, at high water, where connected to watercourse	No	<5	5	suburbia	open cut				Credit Valley
33	Yes, at high water, where connected to watercourse	No	<5	5	suburbia	open cut				Credit Valley
34	Not applicable	No	0	0	suburbia	horizontal directional drill	35+714	36+439	725	Credit Valley
35	No	No	1.14	0	suburbia	horizontal directional drill	35+714	36+439	725	Credit Valley
36	Not applicable	No	0	0	suburbia	horizontal directional drill	35+714	36+439	725	Credit Valley
87	Not applicable	No	0.7	<5	suburbia	horizontal directional	35+714	36+439	725	Credit Valley
88	Not applicable	No	0.7	<5	suburbia	drill open cut				Credit Valley
89	Not applicable	No	1	0	suburbia	open cut				Credit Valley
90	Not applicable	No	0	0	suburbia	open cut				Credit Valley
91	Not applicable	No	0	0	suburbia	open cut				Credit Valley
92	Not applicable	No	6-10	5-10	suburbia	horizontal directional	37+678	38+328	650	Credit Valley
93	Not applicable	No	<5	5	suburbia	drill horizontal directional	37+678	38+328	650	Credit Valley
94	Not applicable	No	0	0	suburbia	drill bore	39+018	39+128	110	Credit Valley
95	Yes, at high water, where connected to watercourse	Maybe (American eel)	5	>30	light industrial /	horizontal directional	40+820	41+510	690	TRCA
96	No	No	10	30	suburbia light industrial	drill horizontal directional	42+884	43+254	370	TRCA
97	Not applicable	Yes (American eel)	15-20	>30	light industrial /	drill horizontal directional	43+873	45+653	1,780	TRCA
98	Yes	Unlikely (American eel)	<5	0	suburbia golf course	drill horizontal directional	43+873	45+653	1,780	TRCA
99	No	No	<5	0	golf course	drill horizontal directional	43+873	45+653	1,780	TRCA
100	Yes	Unlikely (American eel)	30	10-15	light industrial	drill horizontal directional	43+873	45+653	1,780	TRCA
101	No, No connectivity to stream	Yes in watercourse, unlikely at site (redside dace)	5-10	0	light industrial	drill horizontal directional	48+393	49+103	711	TRCA
102	No	No	1.7	5-10	urban	drill open cut				TRCA
103	Not applicable	Maybe (redside dace, American eel)	<5	5-7	suburbia	horizontal directional	53+354	53+629	275	TRCA
104	Yes, at high water, where connected to watercourse	Yes (redside dace, American eel)	13.7	10-20	park	drill horizontal directional drill	54+346	54+666	320	TRCA
105	Not applicable	No	<5	>30	park	open cut				TRCA
06	Not applicable	Yes (redside dace, American eel)	20	30->100	protected area	horizontal directional drill	54+775	55+430	655	TRCA
107	Not applicable	Probably (redside dace, American eel)	<5	5->30	urban	horizontal directional	55+642	56+407	765	TRCA
108	Not applicable	Probably (redside dace, American eel)	<5	5->30	urban	drill horizontal directional	55+642	56+407	765	TRCA
109	Yes, at high water, where connected to watercourse	Probably (redside dace, American eel)	<5	5->30	urban	drill horizontal directional	55+642	56+407	765	TRCA
110	Yes, at high water, where connected to watercourse	Probably (redside dace, American eel)	5.7	5->30	urban	drill horizontal directional	56+408	56+818	410	TRCA

Order West to			Channel	Riparian Width		Construction	Trenchless Installation Begin	Trenchless Installation End	Trenchless Installation	
East	Fishbearing (wetland)	SAR	Width (m)	(m)	Land Use	Method	Station	Station	Length (m)	CA
112	Not applicable	No	30	<5	urban	open cut				TRCA
113	Yes, at high water, where connected to watercourse	Maybe (redside dace)	5	5-10	urban	horizontal directional	59+934	60+769	835	TRCA
114	Yes, at high water, where connected to watercourse	Yes (redside dace)	5.7	50->100	urban	horizontal directional drill	59+934	60+769	835	TRCA
115	Yes, at high water, where connected to watercourse	Yes (redside dace)	5.7	50->100	urban	horizontal directional drill	59+934	60+769	835	TRCA

Table F-4: Wa	tercourse	Crossings	1		T			
Order West to	MNRF	Municipality (Upper	Municipality (Lower	Thormal Dogima	RAP (i.e., timing window when	Vahiala Environant Crassins	Northing	Faction
East 1	Region Guelph	Tier) City of Hamilton	Tier) City of Hamilton	Thermal Regime warm	you CAN'T work) April 1-June 30 (fish)	Vehicle Equipment Crossing snowfill, or matting (and temporary span if wet)	Northing 4799094	<b>Easting</b> 586967
-		,	Ť		. ,			
2	Guelph	City of Hamilton	City of Hamilton	warm	April 1-June 30 (fish)	snowfill, or matting (and temporary span if wet)	4799148	587017
3	Guelph	City of Hamilton	City of Hamilton	warm	March 15-June 30 (fish); May to October (turtle)	drive around	4800351	588266
4	Guelph	City of Hamilton	City of Hamilton	warm	March 15-June 30 (fish); May to October (turtle)	drive around	4800380	588294
5	Guelph	City of Hamilton	City of Hamilton	warm	April 1-June 30 (fish); May to October (turtle)	snowfill, or matting (and temporary span if wet)	4801183	588846
7	Guelph	City of Hamilton	City of Hamilton	warm	April 1-June 30 (fish); May to October (turtle)	drive around (preferred), or matting (and temporary span if wet)	4801295	588870
8	Guelph	City of Hamilton	City of Hamilton	n/a	May to October (turtle)	snowfill, or matting	4801975	589153
10	Guelph	City of Hamilton	City of Hamilton	no data - assume warm	April 1-June 30 (fish); May to October (turtle)	snowfill, or matting (and temporary span if wet)	4802062	589196
11	Guelph	City of Hamilton	City of Hamilton	no data - assume warm	April 1-June 30 (fish); May to October (turtle); April to October (JESA)	drive around	4802649	589581
12	Aurora	Region of Halton	City of Burlington	n/a	May to October (turtle); April to October (JESA)	drive around	4802815	589716
13	Aurora	Region of Halton	City of Burlington	no data - assume warm	April 1-June 30 (fish)	drive around	4803035	589956
14	Aurora	Region of Halton	City of Burlington	no data - assume warm	April 1-June 30 (fish)	drive around (preferred), or matting (and temporary span if wet)	4803186	590086
15	Aurora	Region of Halton	City of Burlington	no data - assume warm	April 1-June 30 (fish)	drive around (preferred), or matting (and temporary span if wet)	4803534	590406
17	Aurora	Region of Halton	City of Burlington	no data - assume warm	April 1-June 30 (fish)	drive around	4804250	590933
20	Aurora	Region of Halton	City of Burlington	n/a	April to October (JESA)	use existing crossing or snowfill/ matting	4804921	591339
21	Aurora	Region of Halton	City of Burlington	n/a	n/a	snowfill, or matting	4805333	591652
22	Aurora	Region of Halton	City of Burlington	n/a	n/a	snowfill/ matting	4805434	591728
23	Aurora	Region of Halton	City of Burlington	no data - assume warm	April 1-June 30 (fish)	clear span crossing and snowfill/ matting for riparian	4806505	592379
24	Aurora	Region of Halton	City of Burlington	no data - assume warm	April 1-June 30 (fish)	drive around on existing crossing (preferred) or clear span crossing and snowfill/ matting for riparian	4806703	592589
25	Aurora	Region of Halton	City of Burlington	cold (ARA) - assume warm	April 1-June 30 (fish)	drive around on existing crossing (preferred) or clear span crossing and snowfill/ matting for riparian	4806839	592770
26	Aurora	Region of Halton	City of Burlington	cold (ARA) - assume warm	April 1-June 30 (fish)	clear span crossing and snowfill/ matting for riparian	4806851	592781
27	Aurora	Region of Halton	City of Burlington	no data - assume warm	April 1-June 30 (fish)	snowfill, or matting	4807115	592956
28	Aurora	Region of Halton	City of Burlington	no data - assume warm	April 1-June 30 (fish)	under road - n/a	4807153	592968
29	Aurora	Region of Halton	City of Burlington	cold (ARA) - assume warm	April 1-June 30 (fish)	use existing parallel road	4807608	593283
30	Aurora	Region of Halton	City of Burlington	no data - assume warm	April 1-June 30 (fish)	n/a open cut is along watercourse not across	4807670	593331
31	Aurora	Region of Halton	City of Burlington	n/a	n/a	snowfill, or matting	4807796	593425
32	Aurora	Region of Halton	City of Burlington	n/a	n/a	snowfill, or matting	4807825	593449
33	Aurora	Region of Halton	City of Burlington	cold (ARA) - assume warm	April 1-June 30 (fish)	clear span crossing and snowfill/ matting for riparian	4808118	593717
35	Aurora	Region of Halton	City of Burlington	no data - assume warm	April 1-June 30 (fish)	snowfill, or matting (and temporary span if wet)	4808410	593921
36	Aurora	Region of Halton	City of Burlington	no data - assume warm	September 15 to July 1 (fish)	drive around	4808922	594120
37	Aurora	Region of Halton	City of Burlington	n/a	n/a	drive around	4809020	594157
38	Aurora	Region of Halton	City of Burlington	n/a	n/a	mainline, or matting	4809514	594426
39	Aurora	Region of Halton	City of Burlington	n/a	n/a	mainline, or matting	4809582	594475
			- 41.000					50.4000
40 41	Aurora	Region of Halton Region of Halton	Town of Milton Town of Milton	n/a n/a	n/a n/a	snowfill, or matting snowfill, or matting	4810222 4810327	594939 595014

Order West to	MNRF	Municipality (Upper	Municipality (Lower		RAP (i.e., timing window when			
East	Region	Tier)	Tier)	Thermal Regime	you CAN'T work)	Vehicle Equipment Crossing	Northing	Easting
12	Aurora	Region of Halton	Town of Milton	n/a	n/a	snowfill, or matting	4810440	595096
3	Aurora	Region of Halton	Town of Milton	n/a	n/a	snowfill, or matting	4810530	595161
4	Aurora	Region of Halton	Town of Milton	n/a	n/a	snowfill, or matting	4811242	595651
.5 .7	Aurora	Region of Halton	Town of Milton	n/a	n/a	mainline, or snowfill/ matting	4812501	596527
+7	Aurora	Region of Halton	Town of Oakville	no data - assume warm	n/a	snowfill, or matting (and temporary span if wet)	4813885	597353
18	Aurora	Region of Halton	Town of Oakville	no data - assume warm	n/a	snowfill, or matting (and temporary span if wet)	4813923	597370
19	Aurora	Region of Halton	Town of Oakville	no data - assume warm	n/a	snowfill, or matting (and temporary span if wet)	4814078	597484
50	Aurora	Region of Halton	Town of Oakville	warm	September 15 to July 1 (fish)	drive around	4814343	597704
52	Aurora	Region of Halton	Town of Oakville	warm	April 1-June 30 (fish)	snowfill, or matting (and temporary span if wet)	4814690	597997
54	Aurora	Region of Halton	Town of Oakville	n/a	n/a	snowfill, or matting (and temporary span if wet)	4815278	598486
55	Aurora	Region of Halton	Town of Milton	n/a	n/a	snowfill, or matting (and temporary span if wet)	4815540	598706
56	Aurora	Region of Halton	Town of Milton	n/a	n/a	snowfill, or matting (and temporary span if wet)	4816020	599104
57	Aurora	Region of Halton	Town of Milton	cool	September 15 to July 1 (fish)	drive around	4816494	599496
58	Aurora	Region of Halton	Town of Milton	cool	March 15 to July 15 (fish)	snowfill, or matting (and temporary span if wet)	4816811	599758
59	Aurora	Region of Halton	Town of Milton	cool	March 15 to July 15 (fish)	snowfill, or matting (and temporary span if wet)	4816865	599802
60	Aurora	Region of Halton	Town of Milton	n/a	n/a	snowfill, or matting (and temporary span if wet)	4817002	599912
61	Aurora	Region of Halton	Town of Milton	warm	April 1-June 30 (fish)	snowfill, or matting (and temporary span if wet)	4818519	601175
62	Aurora	Region of Halton	Town of Milton	warm	April 1-June 30 (fish)	snowfill, or matting (and temporary span if wet)	4818564	601213
63	Aurora	Region of Halton	Town of Milton	n/a	n/a	snowfill, or matting (and temporary span if wet)	4818673	601303
64	Aurora	Region of Halton	Town of Milton	n/a	n/a	snowfill, or matting (and temporary span if wet)	4818704	601329
65	Aurora	Region of Halton	Town of Milton	n/a	n/a	snowfill, or matting (and temporary span if wet)	4818834	601436
36	Aurora	Region of Halton	Town of Milton	n/a	n/a	snowfill, or matting (and temporary span if wet)	4818866	601463
67	Aurora	Region of Halton	Town of Milton	n/a	n/a	snowfill, or matting (and temporary span if wet)	4818981	601557
68	Aurora	Region of Halton	Town of Milton	n/a	n/a	snowfill, or matting (and temporary span if wet)	4819159	601705
69	Aurora	Region of Halton	Town of Milton	n/a	n/a	snowfill, or matting (and temporary span if wet)	4819218	601754
70	Aurora	Region of Halton	Town of Milton	warm	April 1-June 30 (fish)	snowfill, or matting (and temporary span if wet)	4819245	601776
71	Aurora	Region of Halton	Town of Milton	n/a	n/a	snowfill, or matting (and temporary span if wet)	4819607	602078
72	Aurora	Region of Halton	Town of Milton	assume warm			4820339	602688
73	Aurora	Peel Region	City of Mississauga	assume warm		use existing crossing - replace culvert?	4821073	603299
74	Aurora	Peel Region	City of Mississauga	assume warm		use existing crossing - replace culvert?	4822334	604351
75	Aurora	Peel Region	City of Mississauga	assume warm		snowfill, or matting (and temporary span if wet)	4822809	604745
76	Aurora	Peel Region	City of Mississauga	warm	September 15 to July 15 (fish)	Drive around	4823908	605774
77	Aurora	Peel Region	City of Mississauga	n/a	n/a	Drive around on existing trail	4824874	606674
78	Aurora	Peel Region	City of Mississauga	n/a	n/a	Drive around on existing trail	4824908	606697

Table F-4: Wa	tercourse	Crossings	1	1	T			
Order West to East	MNRF Region	Municipality (Upper Tier)	Municipality (Lower Tier)	Thermal Regime	RAP (i.e., timing window when you CAN'T work)	Vehicle Equipment Crossing	Northing	Easting
79	Aurora	Peel Region	City of Mississauga	assume warm	you oak I work)	veniore Equipment orosonig	4825862	607325
80	Aurora	Peel Region	City of Mississauga	n/a	n/a	snowfill, or matting (and temporary span if wet)	4826030	607406
81	Aurora	Peel Region	City of Mississauga	n/a	n/a	snowfill, or matting (and temporary span if wet)	4826111	607467
82	Aurora	Peel Region	City of Mississauga	assume warm		snowfill, or matting (and temporary span if wet)	4826298	607603
83	Aurora	Peel Region	City of Mississauga	assume warm		snowfill, or matting (and temporary span if wet)	4826369	607655
84	Aurora	Peel Region	City of Mississauga	n/a	n/a	drive around (preferred) or snowfill/ matting if required	4827065	608182
85	Aurora	Peel Region	City of Mississauga	warm	n/a	drive around (preferred) or snowfill/ matting if required	4827153	608247
86	Aurora	Peel Region	City of Mississauga	n/a	n/a	drive around (preferred) or snowfill/ matting if required	4827160	608252
87	Aurora	Peel Region	City of Mississauga	warm	n/a	drive around (preferred) or snowfill/ matting if required	4827271	608335
88	Aurora	Peel Region	City of Mississauga	warm	n/a	drive around (preferred) or snowfill/ matting if required	4827330	608379
89	Aurora	Peel Region	City of Mississauga	warm	n/a	drive around (preferred) or snowfill/ matting if required	4827634	608606
90	Aurora	Peel Region	City of Mississauga	warm	n/a	drive around (preferred) or snowfill/ matting if required	4827805	608733
91	Aurora	Peel Region	City of Mississauga	n/a	n/a	drive around (preferred) or snowfill/ matting if required	4828013	608889
92	Aurora	Peel Region	City of Mississauga	warm	March 15 to July 15 (fish)	drive around	4828306	609188
93	Aurora	Peel Region	City of Mississauga	warm	March 15 to July 15 (fish)	drive around or use existing crossing	4828404	609264
94	Aurora	Peel Region	City of Mississauga	warm	n/a	drive around on existing crossing	4829345	609976
95	Aurora	Peel Region	City of Mississauga	warm	March 15 to July 15 (fish)	drive around	4831069	611225
96	Aurora	Peel Region	City of Mississauga	n/a	n/a	snowfill, or matting (and temporary span if wet)	4832328	612262
97	Aurora	City of Toronto	City of Toronto	warm	September 15 to July 15 (fish)	drive around	4833266	612918
98	Aurora	City of Toronto	City of Toronto	warm	March 15 to July 15 (fish)	drive around	4833748	613132
99	Aurora	City of Toronto	City of Toronto	n/a	n/a	drive around	4834167	613318
100	Aurora	City of Toronto	City of Toronto	warm	March 15 to July 15 (fish)	drive around	4834541	613485
101	Aurora	City of Toronto	City of Toronto	warm	September 15 to July 15 (fish)	drive around	4837315	614656
102	Aurora	City of Toronto	City of Toronto	warm	n/a	drive around or use existing crossing (preferred), or clear span	4841277	615921
103	Aurora	City of Toronto	City of Toronto	warm	September 15 to July 15 (fish)	clear span	4841858	616100
104	Aurora	City of Toronto	City of Toronto	warm	September 15 to July 15 (fish)	drive around	4842890	616548
105	Aurora	City of Toronto	City of Toronto	n/a	n/a	snowfill, or matting	4843091	616644
106	Aurora	City of Toronto	City of Toronto	warm	September 15 to July 15 (fish)	drive around	4843293	616738
107	Aurora	City of Toronto	City of Toronto	warm	September 15 to July 15 (fish)	drive around	4844230	617184
108	Aurora	City of Toronto	City of Toronto	warm	September 15 to July 15 (fish)	drive around	4844295	617215
109	Aurora	City of Toronto	City of Toronto	warm	September 15 to July 15 (fish)	drive around	4844491	617309
110	Aurora	City of Toronto	City of Toronto	warm	September 15 to July 15 (fish)	drive around	4844619	617370

Order West to	MNRF	Municipality (Upper	Municipality (Lower		RAP (i.e., timing window when			
East	Region	Tier)	Tier)	Thermal Regime	you CAN'T work)	Vehicle Equipment Crossing	Northing	Easting
112	Aurora	City of Toronto	City of Toronto	n/a	n/a	snowfill, or matting (and temporary span if wet)	4845268	617633
113	Aurora	City of Toronto	City of Toronto	warm	September 15 to July 15 (fish)	drive around	4846449	619774
114	Aurora	City of Toronto	City of Toronto	warm	September 15 to July 15 (fish)	drive around	4846537	620048
115	Aurora	City of Toronto	City of Toronto	warm	September 15 to July 15 (fish)	drive around	4846542	620064