SCS consulting group ltd

File #: 2699
Date: August 29, 2024

Ms. Cassie Schembri
Town of Caledon
6311 Old Church Road
Caledon, ON, L7C 1J6

Dear Ms. Schembri:

Re: **High-Level Background Servicing and Stormwater Management Analysis**
Mayfield-Tullamore Secondary Plan
Town of Caledon, Region of Peel

The following analysis has been prepared to provide a summary of the existing sanitary and water system and associated improvements throughout the Region of Peel and Town of Caledon, and a summary of the ongoing stormwater management analysis, that supports the development of the Mayfield-Tullamore Secondary Plan area, which is part of the future development areas identified in the Region Official Plan (2022) and Town of Caledon Official Plan (2024). The proposed Mayfield-Tullamore Secondary Plan (hereafter referred to as the Secondary Plan) includes the development of future community and employment areas generally between Old School Road to the north, Mayfield Road to the south, Torbram Road to the east, and Dixie Road and future employment lands to the west.

Stormwater Management and Servicing

Storm servicing, including the establishment of stormwater management (SWM) criteria and preliminary SWM facility locations, will be determined through the ongoing Local Subwatershed Study being prepared by the Mayfield Tullamore Landowner Group. The SWM design for the secondary plan will meet all relevant quantity control, quality control, erosion control, temperature mitigation, water balance, and conveyance criteria. SWM facilities will generally be located at the existing low points throughout the Secondary Plan adjacent to existing conveyance features and watercourses to provide a suitable outlet.

Existing Water and Sanitary Servicing

There are existing watermains on several arterial roads surrounding the Secondary Plan including: a 300 mm diameter watermain on Bramalea Road, northerly from Mayfield Road up to an existing elementary school's northern property limits (James Grieve Public School); a 200 mm diameter watermain on Torbram Road, and a 300 mm diameter watermain and 750 mm diameter watermain on Mayfield Road. The Secondary Plan spans the Peel Region water pressure zones 6 and 7 with the northwest corner of the Secondary Plan serviced via pressure zone 7 and the remainder via pressure zone 6.

There are no existing sanitary sewers on the arterial roads surrounding the Secondary Plan. An existing sanitary pumping station is located at the northeast corner of the intersection of Mayfield Road and

Bramalea Road, which conveys flows from the existing elementary school (James Grieve Public School, secondary school (Mayfield Secondary School), and community centre (Mayfield Recreation Complex). The pumping station conveys flows south on Bramalea Road via a forcemain to an existing gravity sanitary sewer located south of Inspire Road.

Region of Peel Planned Servicing

The water and sanitary servicing improvements in the Region of Peel and Town of Caledon have been determined through the Region of Peel Water and Wastewater Master Plan (2020), Region of Peel Settlement Boundary Expansion (SABE) Water and Wastewater Servicing Analysis (2022), and ongoing coordination with Region of Peel staff. The Secondary Plan is generally bounded by Old School Road to the north, Torbram Road to the east, Mayfield Road to the south, and future industrial development fronting Dixie Road to the west. The Secondary Plan is identified as Secondary Plan areas E4 and E5 in the Town of Caledon Official Plan. Relevant figures from the Region documents and coordination noted above are provided in **Attachment A**. It should be noted that several of the plans have been superseded with further refinements to be conducted through the Secondary Plan process. Through the documents and discussions outlined above, it can be confirmed that the Secondary Plan has been accounted for by the Region with regard to water and wastewater servicing through the extension of services.

Region of Peel Water and Wastewater Master Plan

The Region of Peel Water and Wastewater Master Plan (2020) identifies the servicing needs of future development to 2041. The Master Plan projects proposed in this document include watermain and sanitary sewer projects throughout the Region, including the planned growth areas in Caledon north of Mayfield Road and in west Bolton, but do not include the development area surrounding the anticipated Bolton GO station. Several water and wastewater projects are noted in the immediate vicinity of the Secondary Plan including: D-242, ST-113, D-180, D-181, ST-178, and ST-208.

Region of Peel SABE Water and Wastewater Servicing Analysis (2022)

The Region of Peel SABE Water and Wastewater Servicing Analysis identifies the servicing needs of the anticipated growth areas in Caledon from 2041 to 2051 including the development area surrounding the anticipated Bolton GO Station. The analysis focused on conveyance infrastructure and did not include a summary of water treatment plant and wastewater treatment plant improvements required beyond those identified in the Region of Peel Master Plan. The Secondary Plan was identified as part of water pressure subzones 6E and 7E and sanitary servicing area 2. No additional water and wastewater projects were noted in the immediate vicinity of the Secondary Plan beyond those identified in the Water and Wastewater Master Plan (2020).

Draft Region of Peel Development Charge (DC) Infrastructure Mapping (2024)

Draft DC Project Mapping (2024) was obtained from Region of Peel staff which illustrates preliminary watermain and sanitary projects to support the full buildout of the SABE including the Secondary Plan. It should be noted that the projects and construction timing shown are preliminary only and subject to change.

Several discussions have occurred with Region staff regarding the sanitary servicing in particular including external and internal drainage for the future development west and north of the Secondary Plan. It is understood from these discussions that the Secondary Plan is generally outside of the current Region 10-year capital plan and so trunk water and wastewater service sizing and alignments, and construction timing will need to be reviewed and refined as part of the Secondary Plan and Tertiary Plan process.

Secondary Plan Master Servicing

Master Water and Sanitary servicing plans have been prepared for the Secondary Plan based on the documents and discussions outlined above. A summary of the servicing strategy has been provided below that will be refined as part of the Secondary Plan and Tertiary Plan approval process.

Master Water Servicing Plan

The Master Water Servicing Plan (**Figure 1**) shows distribution and transmission mains per the latest Region of Peel DC infrastructure mapping and the approximate pressure zone boundaries. As noted above, the Secondary Plan is located at the split between Pressure Zone 6 and Pressure Zone 7.

Servicing for Pressure Zone 6 will be provided by the distribution mains planned by the Region with connections to the existing distribution mains on Mayfield Road and the future distribution main through the future industrial development east of Torbram Road (Tullamore Industrial development). The existing distribution main on Bramalea Road will be extended north to the intersection with the future east-west collector road. The existing 200 mm diameter watermain on Torbram Road will be replaced with a 400 mm diameter watermain extending from Mayfield Road to the future intersection at the Mayfield Golf Course lands. A mid-block distribution main was noted on the Region DC Mapping connecting from Dixie Road to Bramalea Road passing underneath Campbell Creek. This watermain may not be required to service the Pressure Zone 6 development in this area and will be confirmed through the future water distribution analysis.

Servicing for Pressure Zone 7 will be provided by connecting to existing Pressure Zone 7 distribution mains at the intersection of Heart Lake Road and Old School Road, and on Dixie Road immediately south of Campbell Creek. The Region has noted distribution mains in their DC capital program, extending from these connection points to the intersection of Dixie Road and Old School Road, and a mid-block connection from Dixie Road to Bramalea Road. Distribution mains will be extended on Old School Road from Dixie Road to Torbram Road, and on Bramalea Road from Old School Road to the future mid-block connection. Through the future water distribution analysis and coordination with the Region, it will be confirmed if these distribution mains are DC creditable based on servicing the Secondary Plan and future development to the north of Old School Road (minimum 400 mm diameter required). A local watermain loop is anticipated to be required to service the northeast corner of the

Secondary Plan and will also provide looping for future development east of Torbram Road. The loop will follow the alignment of the existing watercourse crossing on the Sentinel Holdings (DG) Lands.

Interim servicing options will be explored as part of the future water distribution analysis.

Master Sanitary Servicing Plan

The Master Sanitary Drainage Plan (**Figure 2**) shows local wastewater mains and drainage boundaries per the latest Region of Peel DC infrastructure mapping and proposed wastewater mains based on the latest sanitary drainage plans distributed by the Region of Peel to the Secondary Plan consultant team (provided in **Attachment A**)

The Secondary Plan will be serviced via connection to future wastewater mains to be extended through the developments to the east of Torbram Road (ST-178 via the Tullamore Industrial development) and to the south of Mayfield Road (ST-012 via Block 48-2). The alignment and future connection locations are schematic and are intended to indicate the anticipated trunk sewer system drainage only.

Sanitary flows from Catchments 101-105 will generally be conveyed east to a future connection to ST-178. It is anticipated that external sanitary drainage from Catchments EXT1 and EXT2, and EXT3 and EXT4, will be conveyed south into the north ends of Catchments 102 and 104 respectively. The ST-178 wastewater main will convey local flows from Catchment EXT5 (Tullamore Industrial development) south along internal roads before connecting to ST-009 south of Mayfield Road.

Sanitary flows from Catchment 201 will generally be conveyed south and east to Torbram Road and will continue east through the Tullamore Industrial development before connecting to ST-178.

Sanitary flows from Catchment 301 will generally be conveyed east to Torbram Road and will continue east through future industrial development east of Torbram Road (Catchment EXT6). The sanitary sewer within Catchment EXT6 will convey flows south before connecting to ST-178. It is anticipated that future external sanitary drainage from Catchments EXT7 and EXT8 will also be conveyed to Catchment EXT6, it is not anticipated that they will be conveyed locally through Catchment 301.

Sanitary flows from Catchments EXT9 and EXT10 of the Tullamore Industrial Lands will be conveyed directly to the Airport Road trunk sewer.

Sanitary flows from Catchments 401, 501, and EXT11 will generally be conveyed south to local connections to the Block 48-2 sanitary sewer system.

Sanitary flows from Catchment 601 will generally be conveyed southeast to Bramalea Road via the ST-208 wastewater main. The ST-208 wastewater main will convey flows south on Bramalea Road, south of Mayfield Road, where it will capture sanitary drainage from Catchment EXT12 before connecting to

the future extension of ST-012 through the Block 48-2 development. It is anticipated that external sanitary drainage from Catchments EXT13, EXT14, and EXT15 will be conveyed into the west end of Catchment 601. Through discussions with Region staff, it is understood that a flow splitter manhole will be installed on Dixie Road which will provide for active management of flows conveyed from the north to be divided between ST-208 and the future extension of the Dixie Road sanitary sewer. The ST-208 wastewater main will be designed assuming that the full peak flows from Catchments EXT14 and EXT15 will be conveyed to ST-208. It is understood that Catchments EXT16 and EXT17 will be conveyed to the Dixie Road sanitary sewer only.

Sanitary flows from Catchment 602 will generally be conveyed west to Bramalea Road. Catchment 602 contains an existing elementary school, secondary school, and community centre which convey sanitary flows to an existing sanitary pumping station at the northeast corner of the intersection of Mayfield Road and Bramalea Road. It is anticipated that this sanitary pumping station will be decommissioned as part of the construction of ST-208 with a gravity connection to ST-208 provided in its place.

A preliminary sanitary design sheet has been prepared based on the latest structure plan of the Secondary Plan and assumed land-use statistics. The sanitary design sheet and structure plan are provided in **Attachment B**. The sanitary drainage boundaries as defined by the limits of development in the Phase 1 Local Subwatershed Study will be refined through the Secondary Plan and Tertiary Plan approval process. Therefore, the populations and design flows are preliminary only and are subject to change.

Interim servicing options will be explored as part of the future sanitary servicing analysis.

Please contact the undersigned if you have any questions or require any additional information.

Sincerely,

SCS Consulting Group Ltd.

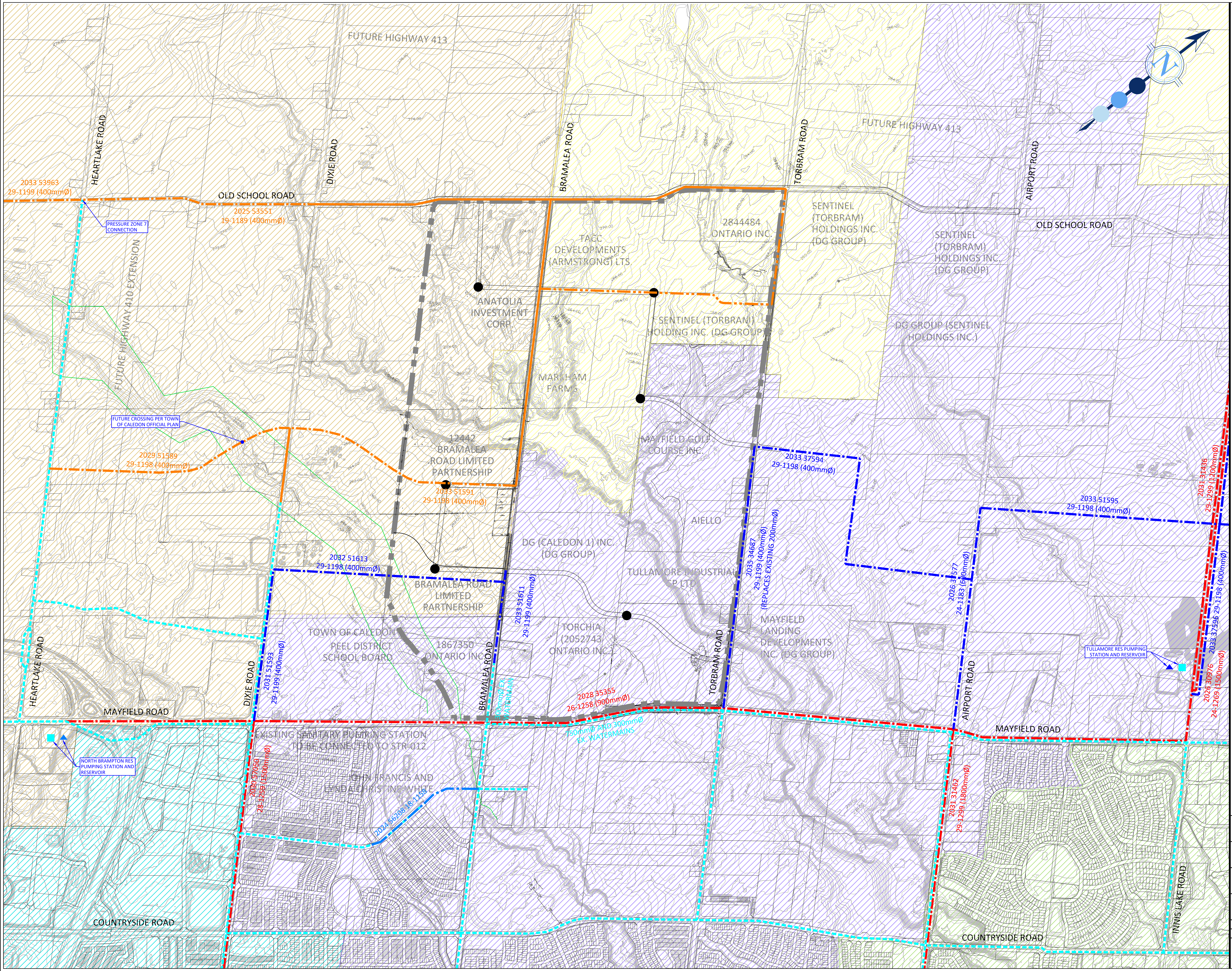
Nicholas McIntosh, M.A.Sc., P. Eng.
nmcintosh@scsconsultinggroup.com

Attachments

Figure 1 – Master Water Servicing Plan
Figure 2 – Master Sanitary Drainage Plan
Attachment A – Region of Peel Documents
Attachment B – Preliminary Sanitary Design Sheet and Structure Plan

c. Ms. Kim Beckman, Development Collective
Mr. Matthew Cory, MGP

P:\2699 Mayfield Tullamore Landowner Group\Correspondence\Letters\Caledon-2024 08(Aug) 29-Preliminary Servicing\Mayfield Tullamore OPA-Preliminary Servicing.docx



LEGEND:

- LIMIT OF SECONDARY PLAN
- REGION DC MAPPING APPROVED ZONE 6 DISTRIBUTION WATERMAIN
- PROPOSED ZONE 6 DISTRIBUTION WATERMAIN EXTENSION
- REGION DC MAPPING PROPOSED ZONE 6 DISTRIBUTION WATERMAIN 2024 - 2051
- REGION DC MAPPING PROPOSED ZONE 7 DISTRIBUTION WATERMAIN 2024-2051
- PROPOSED ZONE 7 DISTRIBUTION WATERMAIN EXTENSION
- PROPOSED ZONE 7 LOCAL DISTRIBUTION WATERMAIN 2024-2051
- REGION DC MAPPING PROPOSED TRANSMISSION MAIN 2024 - 2051
- REGION DC MAPPING EXISTING WATERMAIN
- GREENBELT
- APPROXIMATE EXTENT OF PRESSURE ZONE 5 (182.4 - 236.2 m)
- APPROXIMATE EXTENT OF PRESSURE ZONE 6C (214.5 - 259.1 m)
- APPROXIMATE EXTENT OF PRESSURE ZONE 6E (214.5 - 259.1 m)
- APPROXIMATE EXTENT OF PRESSURE ZONE 7C (243.4 - 289.6 m)
- APPROXIMATE EXTENT OF PRESSURE ZONE 7C (243.4 - 289.6 m)
- REGION DC MAPPING EXISTING PUMPING STATION
- REGION DC MAPPING APPROVED PUMPING STATION IMPROVEMENT
- REGION DC MAPPING PROPOSED PUMPING STATION IMPROVEMENT 2024 - 2051
- REGION DC MAPPING EXISTING RESERVOIR

*NOTE: LAYOUT IS SCHEMATIC ONLY, DETAILS TO BE PROVIDED AT DETAILED DESIGN STAGE.

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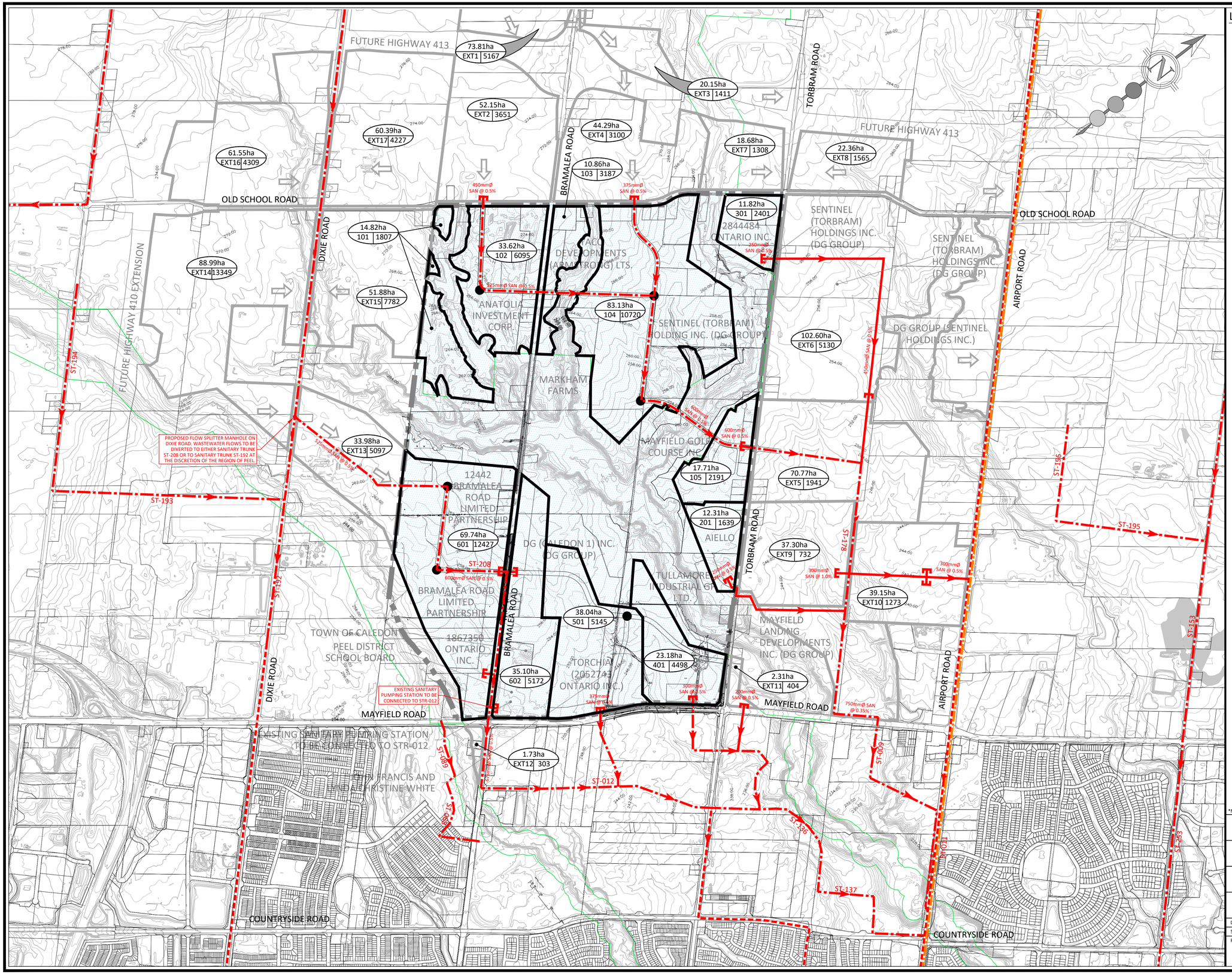
MAYFIELD TULLAMORE LANDOWNER GROUP

MASTER WATER SERVICING PLAN

DESIGNED BY:	C.M.D.	CHECKED BY:	N.D.M.
SCALE:	1:10000	DATE:	AUGUST 2024
PROJECT No: 2699		FIGURE No: 1	

File: P:\2699 Mayfield Tullamore Landowner Group\Drawings\MESP\Fig\Report Figures\2699P-MSTR-WTRM-1.dwg - Revised by <GMURRIA> : Fri, Aug 09 2024 - 3:15pm



LEGEND:

- LIMIT OF SECONDARY PLAN
- EXISTING WASTEWATER MAIN (REGION, 2024)
- REGION DC MAPPING PROPOSED LOCAL WASTEWATER MAIN >2024
- PROPOSED LOCAL WASTEWATER MAIN EXTENSION >2024
- REGION DC MAPPING PROPOSED PRIMARY WASTEWATER MAIN >2024
- SANITARY DRAINAGE BOUNDARY
- EXTERNAL SANITARY DRAINAGE BOUNDARY
- 14.82ha / 101 | 1807 — DRAINAGE AREA (HECTARES); POPULATION; CATCHMENT ID
- GREENBELT
- 270.00 — EXISTING CONTOUR AND ELEVATION

*NOTE: LAYOUT IS SCHEMATIC ONLY, DETAILS TO BE PROVIDED AT DETAILED DESIGN STAGE.

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MAYFIELD TULLAMORE LANDOWNER GROUP

MASTER SANITARY DRAINAGE PLAN

DESIGNED BY:	C.M.D.	CHECKED BY:	N.D.M.
SCALE:	1:10000	DATE:	AUGUST 2024
PROJECT No:	2699	FIGURE No:	2

File: P:\2699 Mayfield Tullamore Landowner Group\Drawings\MESP\Fig\Report Figures\2699P-MSTR-SANI-2.dwg – Revised by <GMURRIA> : Fri, Aug 09 2024 – 3:11pm

ATTACHMENT A

REGION OF PEEL DOCUMENTS

SCS consulting group ltd

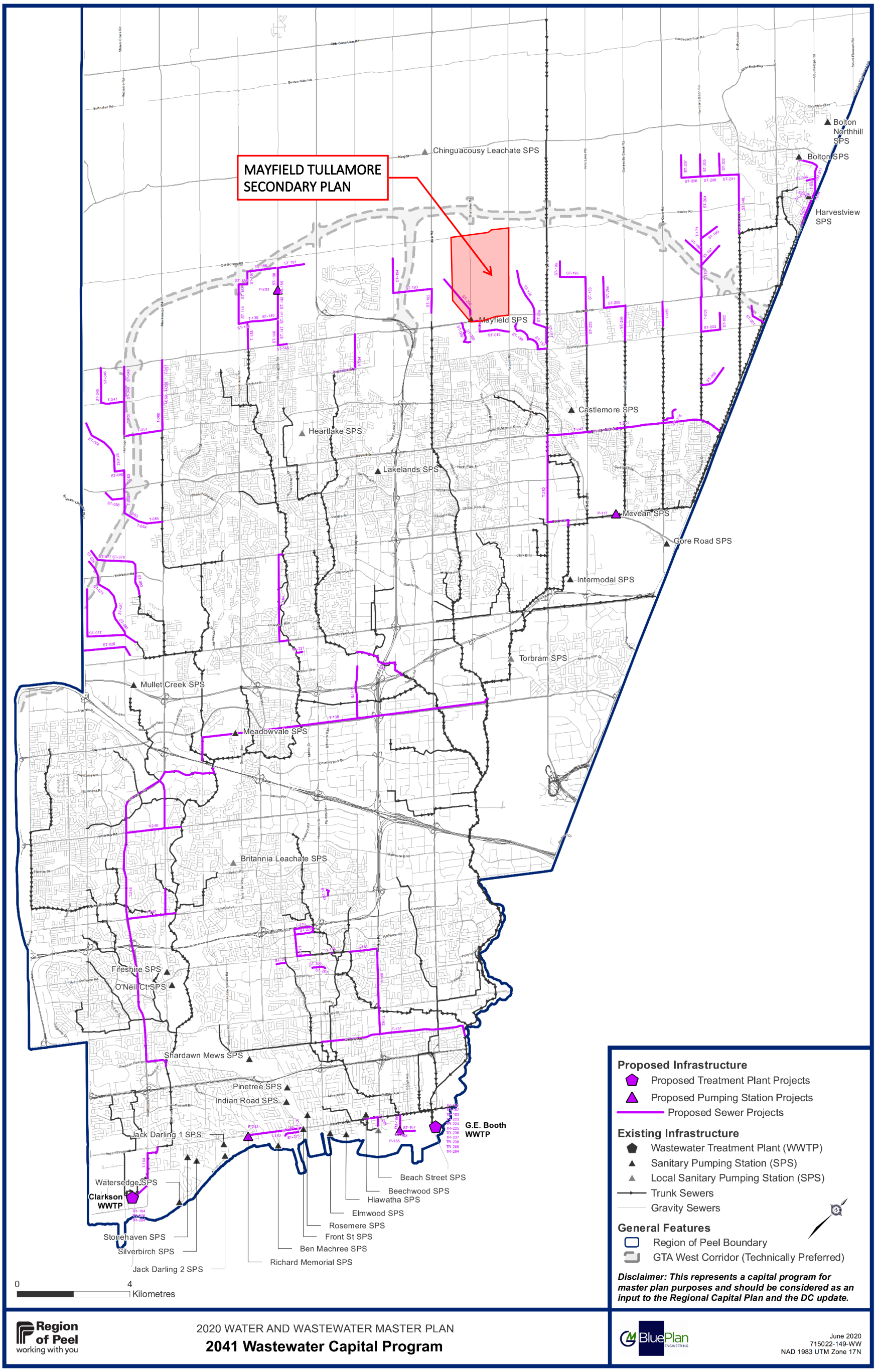


Figure 36 – Preferred wastewater servicing strategy capital program for the lake-based system.

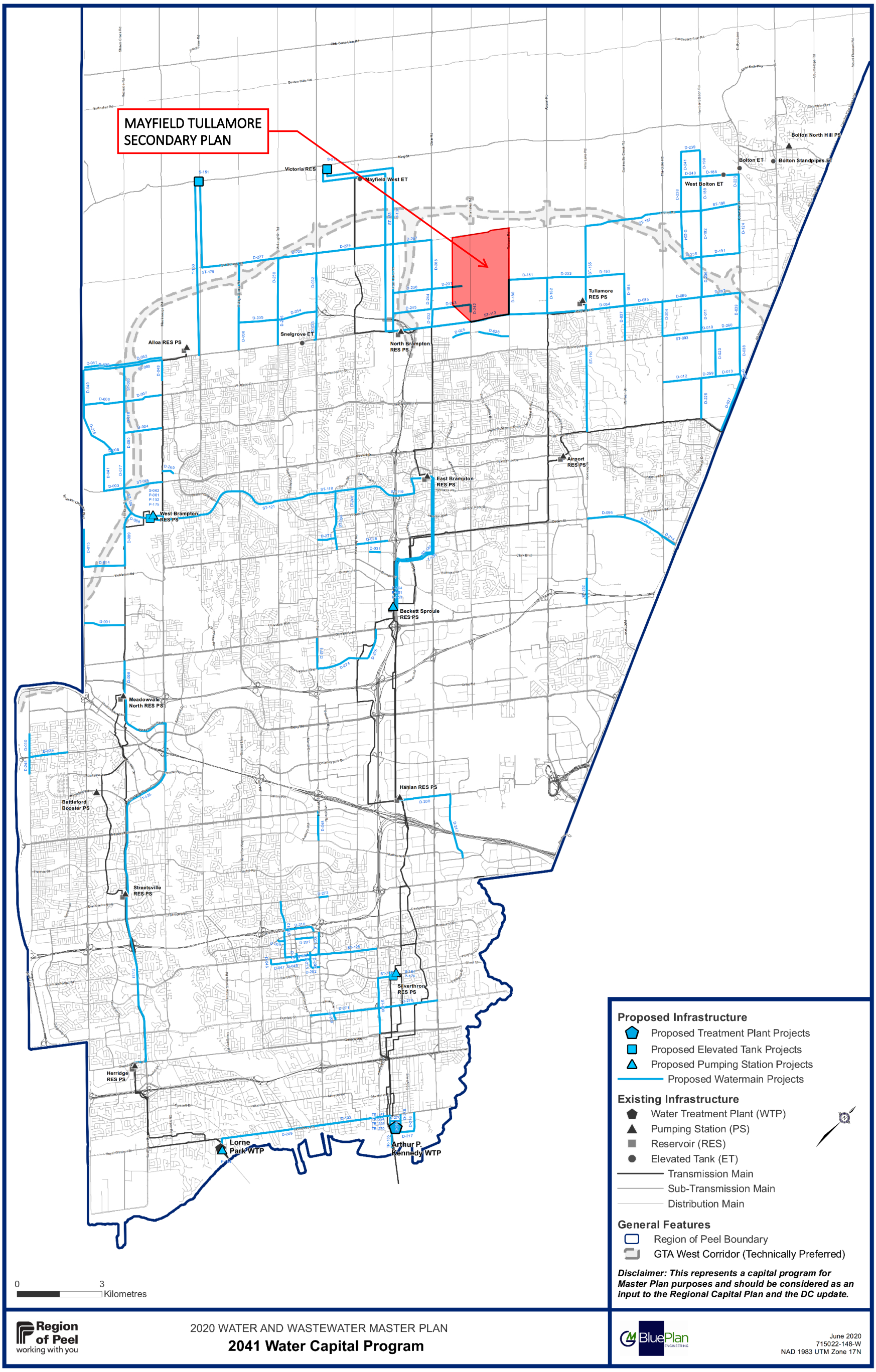


Figure 25 – Preferred water servicing strategy capital program for the lake-based system.

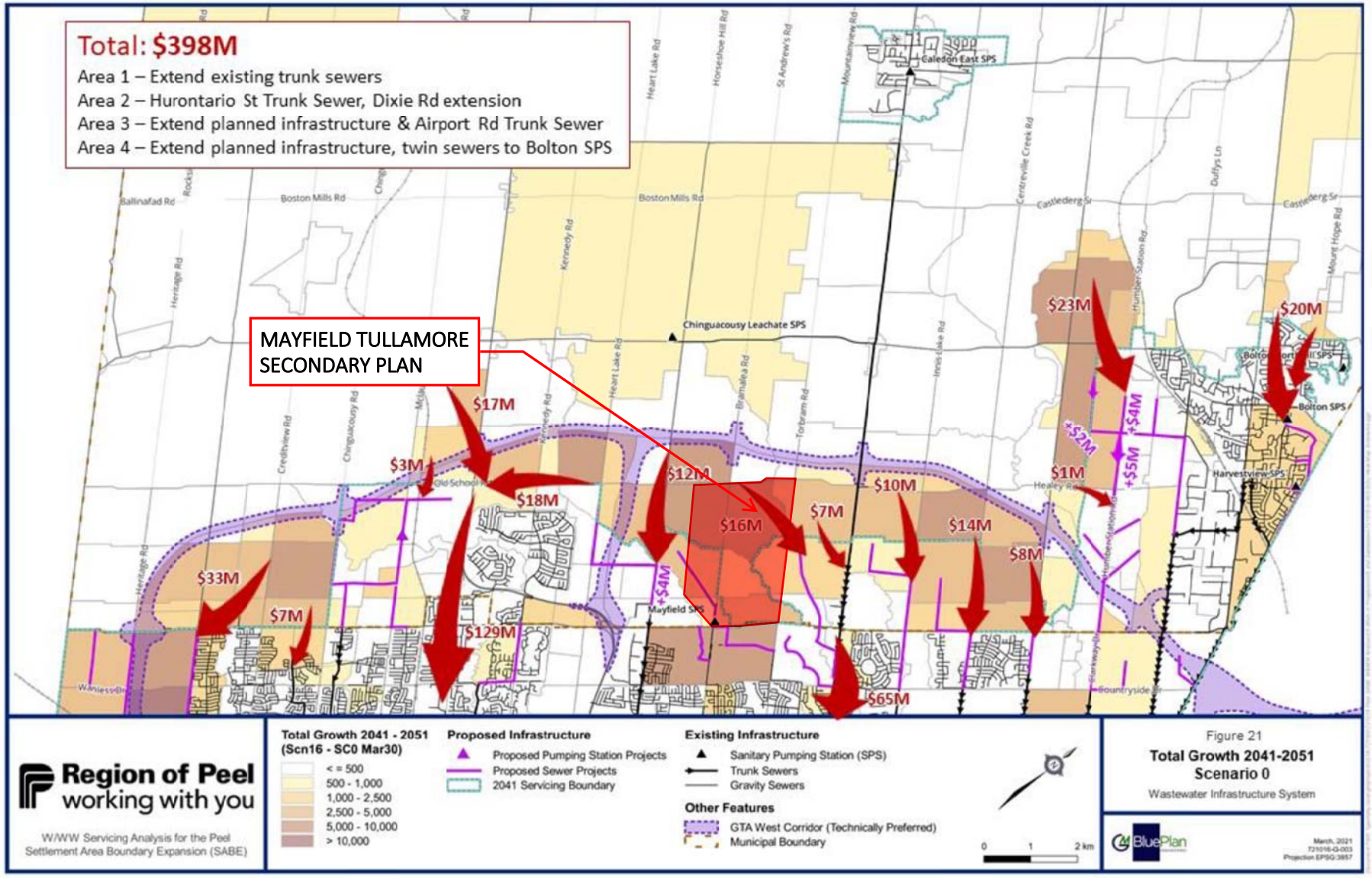


Figure 21 – Scenario 0 Wastewater Infrastructure Requirements

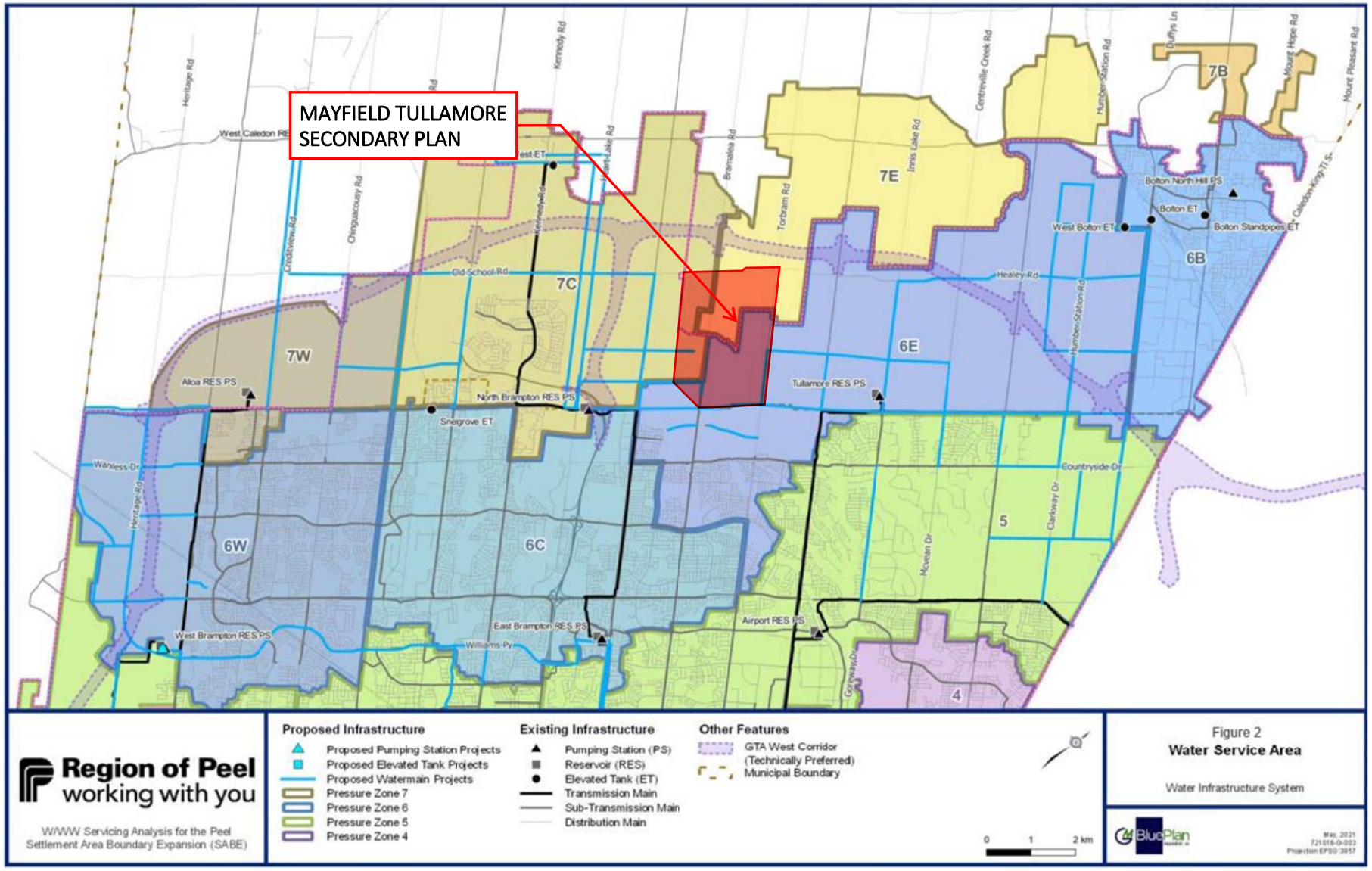


Figure 2 - SABE Water Service Areas and Pressure Zones

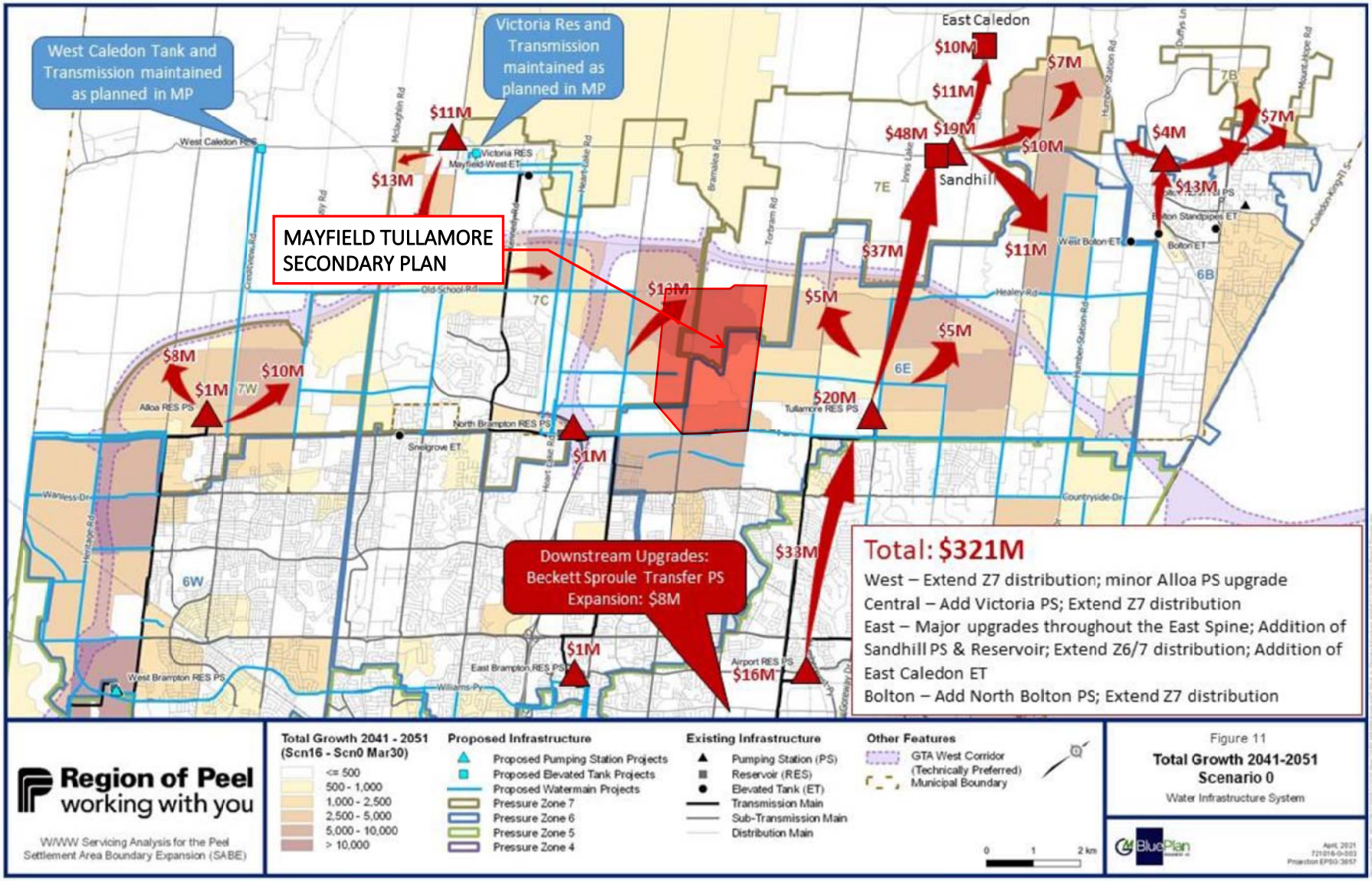
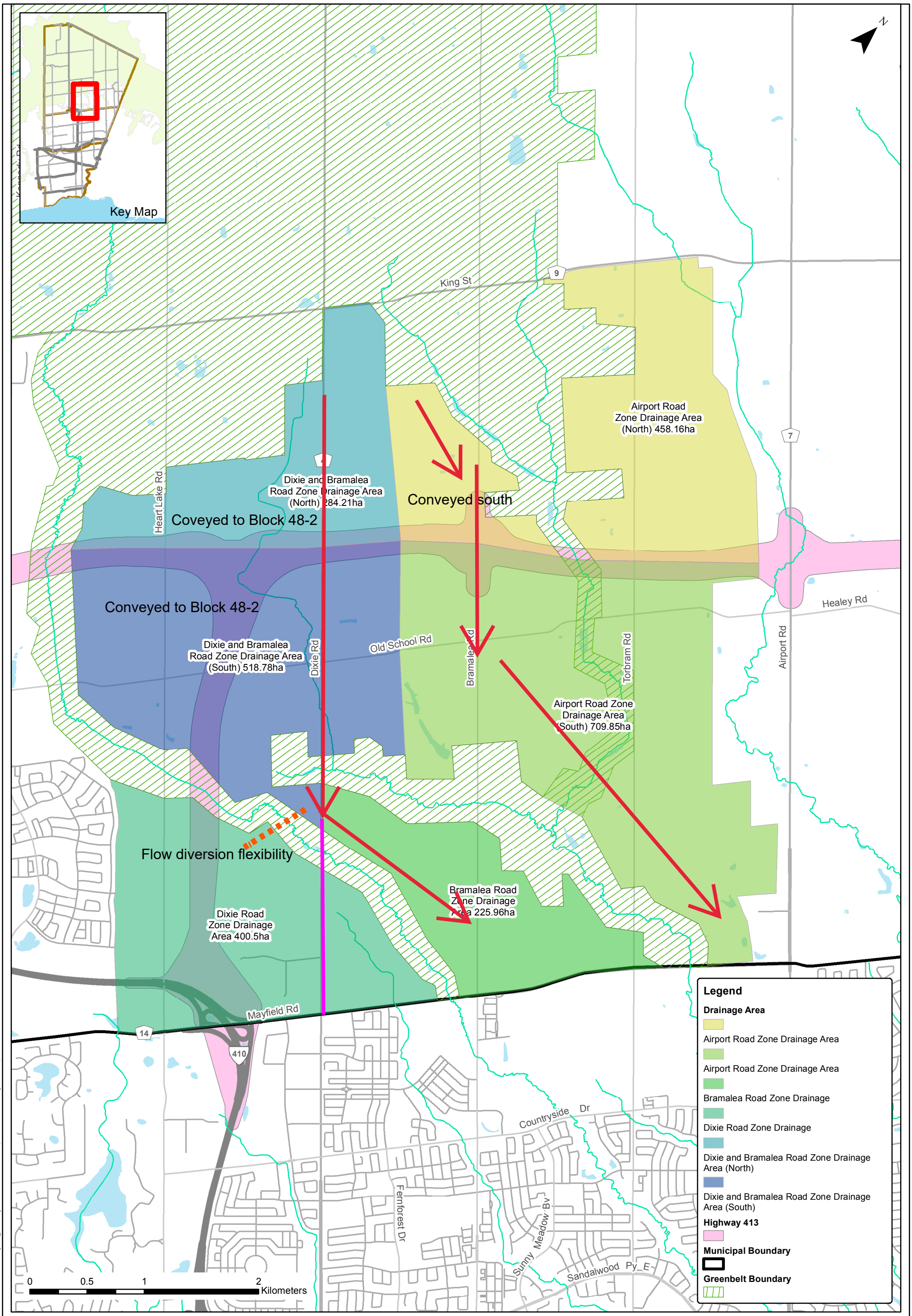


Figure 11 – Scenario 0 Water Infrastructure Requirements



Region of Peel
working with you

4074-WW-Airport Road & Mayfield Road Drainage Area

May, 2024
Water & Wastewater Planning, Public Works
Map ID: 4074-WW-drainage area map
Data Source: Region of Peel
Scale: 1:30,000 | NAD 1983 UTM Zone 17N

Document Path: E:\Program_Planning\Team GIS Files and Maps\4074-WW-drainage area map.mxd

Wastewater Development Charges 2024

Wastewater Servicing Infrastructure
Treatment and Trunk Sewer System
2024-2041 Development Charges

Draft – Not Approved by Council

Humber	
New Sewage Pumping Station	C-2024 (56676)
	P-2024 (56677)
24-2984	C-2026 (56678)

McLaughlin	
New Sewage Pumping Station	D-2024 (57359)
24-2985	C-2026 (57360)

McVean	
Sewage Pumping Station Expansion	C-2024 (55680)
18-2976	C-2024 (56671)

Church Street	
New Facility	D-2029 (35358)
29-2960	P-2029 (35223)
	C-2030 (34286)

Streetsville	
New Facility	D-2029 (35364)
29-2960	P-2029 (35221)
	C-2030 (34285)

Various Dosing Stations	
New Dosing Stations	D-2029 (35383)
25-2960	P-2029 (35224)
	C-2030 (34287)

Clarkson Wastewater Treatment Plant	
Facility **20-2951**	C-2024 (56232)
Automation Consolidation **19-2934**	C-2024 (56108)
	C-2025 (56109)
Treatment Expansion **22-2950**	D-2025 (51956)
	C-2024 (51958)
	C-2025 (51959)
	C-2026 (53368)
Standby Power Expansion **20-2999**	D-2029 (52214)
	C-2031 (52215)
Biosolids Expansion **23-2952**	D-2024(56234)
	D-2025(56235)
	C-2026(54572)
	C-2028(56236)
	C2026(56237)
New Operations Building **26-2959**	C-2026(56884)
	D-2028(56885)
Treatment Expansion **25-2564**	EA-2025(57068)

Jack Darling 3 Sewer Pumping Station	
New Pumping Station	D-2024 (53565)
24-2980	C-2026 (53012)

Lakeview Village	
New Sewage Pumping Station	D-2025 (27417)
25-2982	C-2027 (27418)

Sanitary Pumping Stations	
Decommissioning	D-2026 (52841)
26-2978	C-2028 (52842)

Beach Street Sanitary Pumping Station	
Upgrades	D-2024 (52754)
24-2971	C-2026 (52755)

G.E. Booth Wastewater Treatment Plant	
Automation Consolidation **19-2924**	C-2024 (56106)
	C-2025 (56107)
Odour Control Improvements **20-2961**	C-2024 (38871)
Plant 2 Blower Replacement **22-2923**	C-2024 (53410)
New Outfall **22-2944**	D-2025 (56297)
	C-2027 (51949)
Ash Management Facility **24-2942**	D-2024 (52833)
	C-2026 (52834)
Administration Building **26-2943**	D-2026 (51946)
	C-2028 (51947)
Treatment Expansion **25-2945**	D-2025 (38620)
	D-2027 (38621)
	C-2027 (51944)
	C-2028 (51945)
	C-2029 (52838)
Biosolids Expansion **29-2599**	EA-2029 (38619)
29-2999	D-2032 (51950)
	D-2032 (51952)
	D-2036 (51951)
Standby Power Expansion **28-2999**	D-2028 (52214)
	C-2030 (52215)
Ash Management Facility **28-2999**	C-2032 (37812)
	C-2034 (37813)
Biosolids Expansion **29-2999**	C-2034 (51953)
	C-2036 (35964)
Ash Berm Relocation **29-2947**	D-2024 (56879)
	C-2025 (56880)
Capacity Restoration **19-2940**	D-2024 (56890)
	C-2024 (56891)
Digesters and Beneficial Gas Reuse **25-2941**	D-2025 (56886)
	C-2028 (56887)
Ultaviolet Disinfection **25-2949**	D-2025 (56888)
	C-2028 (56889)
Treatment Expansion **25-2563**	EA-2025 (57067)
29-2999	D-2033 (38620)
	D-2033 (38621)
	C-2036 (51944)
	C-2036 (51945)
	C-2036 (52838)

Approved Infrastructure 2024
- ▲ Sewer Pumping Station
- ⬢ Odour Control Facility
- ⬟ Wastewater Treatment Plant
- Approved Local Wastewater Main 2024
- Approved Primary Wastewater Main 2024

Proposed Infrastructure 2025-2041
- ▲ Sewer Pumping Station
- ⬢ Odour Control Facility
- ⬟ Wastewater Treatment Plant
- Proposed Local Wastewater Main > 2024
- Proposed Primary Wastewater Main > 2024
- Proposed Force Main

Existing Wastewater Infrastructure
- ▲ Sanitary Pumping Station
- Existing Wastewater Main
- Highway 413
- Watercourse
- Greenbelt Boundary
- Urban Boundary
- Municipal Boundary
- Ward Boundary

Label Legend
2031 - Construction Year
30713 - Component Number
25-2199 - Project Number

Region of Peel
working with you

October 2023
Water & Wastewater Planning, Public Works
Map ID: 3871-WW-DC Wastewater Map 2024
Data Source: Region of Peel
Scale: 1:68,000 | NAD83 UTM zone 17N

DISCLAIMER
The proposed capital projects shown on this map are subject to annual review and approval by Regional Council. As such, project schedules and project scopes are subject to change.

Document Path: E:\Program_Planning\Team GIS Files and Maps\3871-WW-DC Wastewater Map 2024.mxd

Water Development Charges 2024

Water Servicing Infrastructure
Water Production, Transmission Systems and Distribution Systems
2024-2041 Development Charges

Draft – Not Approved by Council

Bram West (SPA40)
Northwest Brampton (SPA52, SPA53)

Bram West (SPA40)
Northwest Brampton (SPA52,SPA53)

Highway 427 Industrial (SPA47)

West Bolton

Mississauga City Centre

Dundas Corridor

Lakeview Village

Heritage Road	
New Elevated Tank	
29-1599	EA-2031 (34474)
29-1999	D-2033 (32972)
	P-2033 (32973)
	C-2035 (32974)

West Caledon	
New Elevated Tank	D-2024 (20692)
23-1941	C-2026 (20685)

Snelgrove	
Decommissioning Elevated Tank	C-2024 (32270)
21-1951	
New Elevated Tank	
28-1581	EA-2028 (22428)
29-1999	D-2030 (37130)
	P-2030 (37131)
	C-2032 (37132)

West Brampton	
Reservoir Expansion	D-2031 (25259)
28-1999	C-2033 (26196)
Pumping Station Expansion	D-2026 (23391)
26-1962	C-2027 (23392)
Pumping Station Expansion	D-2029 (34485)
28-1999	C-2030 (16350)
Pumping Station Expansion	D-2034 (23389)
28-1999	C-2035 (23390)

Meadowvale North	
Transient Protection Expansion	C-2026 (54335)
22-1986	
Transient Protection Expansion	D-2028 (54300)
28-1995	C-2030 (54301)

Lorne Park	
Lake Ontario Monitoring System	C-2024 (54099)
22-1934	
Transient Protection Expansion	C-2039 (54396)
24-1540	
Transients/Protection Expansion	D-2028 (54304)
28-1995	C-2030 (54305)
Treatment Expansion	
25-1575	EA-2025 (51085)
29-1997	D-2032 (32978)
	P-2032 (32979)
	C-2034 (32980)

Inglewood	
New Groundwater Well	D-2025 (52801)
22-1831	C-2027 (52302)

Caledon East	
New Groundwater Well	
23-1830	C-2026 (52300)

South Albion	
New Reservoir and Pumping Station	EA-2029 (22574)
	D-2031 (35752)
29-1599	P-2031 (35753)
29-1999	C-2033 (35754)
	C-2033 (35755)
New Elevated Tank	EA-2033 (38092)
29-1599	D-2035 (35756)
29-1999	P-2035 (35757)
	C-2037 (35758)

Macville	
New Elevate Tank	EA-2028 (22514)
28-1583	D-2030 (30682)
29-1999	P-2030 (32702)
	C-2032 (32010)

Castlederg	
New Elevated Tank	EA-2031 (22677)
25-1599	D-2033 (35614)
29-1999	P-2033 (35615)
	C-2035 (35616)

Victoria	
New Pumping Station	
26-1580	EA-2026 (22350)
28-1963	D-2028 (23447)
	C-2030 (23448)

Sandhill	
New Reservoir and Pumping Station	EA-2027 (35850)
	D-2029 (38087)
27-1582	P-2029 (38088)
29-1999	C-2031 (38089)
	C-2031 (38090)

Tullamore	
Pumping Station Expansion	
27-1964	D-2027 (56932)
	C-2029 (56933)

North Brampton	
Transient Protection Expansion	D-2024 (54336)
	C-2026 (54337)
22-1987	

East Brampton	
Reservoir Improvements and Upgrades	C-2026 (32269)
26-1954	
Transients Protection Expansion	D-2024 (54302)
	C-2026 (54303)
24-1985	

Airport Road	
Transient Protection Expansion	C-2026 (54339)
22-1988	
Transient Protection Expansion	D-2028 (54294)
	C-2030 (54295)
28-1995	
Pumping Station Expansion	D-2027 (56934)
27-1965	C-2029 (56937)
	D-2027 (56938)
	C-2029 (56939)

Beckett Sproule	
Pumping Station Expansion	C-2024 (33336)
21-1974	
Improvements and Upgrades	C-2024 (54248)
21-1978	
Transient Protection Expansion	D-2028 (54296)
	C-2030 (54297)
28-1995	
Training and Logistics Facility	D-2024 (54083)
24-1980	C-2024 (54084)
Pumping Station Expansion	D-2029 (52045)
29-1999	C-2030 (52046)

Hanlan	
Transient Protection Expansion	D-2028 (54298)
	C-2030 (54299)
28-1995	
Pumping Station Expansion	D-2031 (23582)
29-1999	C-2033 (23585)

Hanlan West	
New Pumping Station	
22-1992	C-2025 (54315)
New Reservoir	EA-2031 (22673)
29-1599	D-2033 (35617)
29-1999	C-2035 (35618)

Silverthorn	
Transient Protection Expansion	C-2023 (54397)
23-1994	
Reservoir Expansion	D-2026 (54120)
26-1941	C-2027 (54121)

Arthur P. Kennedy	
Reservoir Expansion	D-2024 (23395)
21-1923	C-2026 (23396)
Lake Ontario Monitoring System	C-2024 (54097)
22-1924	
Standby Power Expansion	D-2027 (53560)
27-1982	C-2028 (53561)
	C-2029 (53562)
Waste Building Expansion	D-2031 (23404)
29-1997	C-2033 (23405)
New Intake	
29-1995	EA-2029 (23451)
29-1997	D-2037 (23452)
	C-2039 (23453)
Treatment Expansion	
25-1575	EA-2025 (50380)
28-1925	D-2028 (32975)
	P-2028 (32976)
	C-2030 (32977)

North Bolton	
Booster Pumping Station	D-2024 (30686)
24-1969	P-2024 (32574)
	C-2026 (32573)

MAYFIELD TULLAMORE SECONDARY PLAN

Approved Infrastructure 2024
- Pumping Station
- Reservoir
- Elevated Tank
- Well
- Water Treatment Plant
- Approved Distribution Feeder Main 2024
- Approved Transmission Main 2024

Proposed Infrastructure 2025-2041
- Pumping Station
- Reservoir
- Elevated Tank
- Well
- Water Treatment Plant
- Proposed Distribution Feeder Main Post 2024
- Proposed Transmission Main Post 2024

Existing Water Infrastructure
- Reservoir
- Elevated Tank
- Standpipe
- Well
- Water Pumping Station
- Water Main
- Watercourse
- Highway 413
- Greenbelt Boundary
- Urban Boundary
- Municipal Boundary
- Ward Boundary

Label Legend
2031 - Construction Year
30713 - Component Number
25-2199 - Project Number

DISCLAIMER
The proposed capital projects shown on this map are subject to annual review and approval by Regional Council. As such, project schedules and project scopes are subject to change.

0 2 4 8 Kilometres

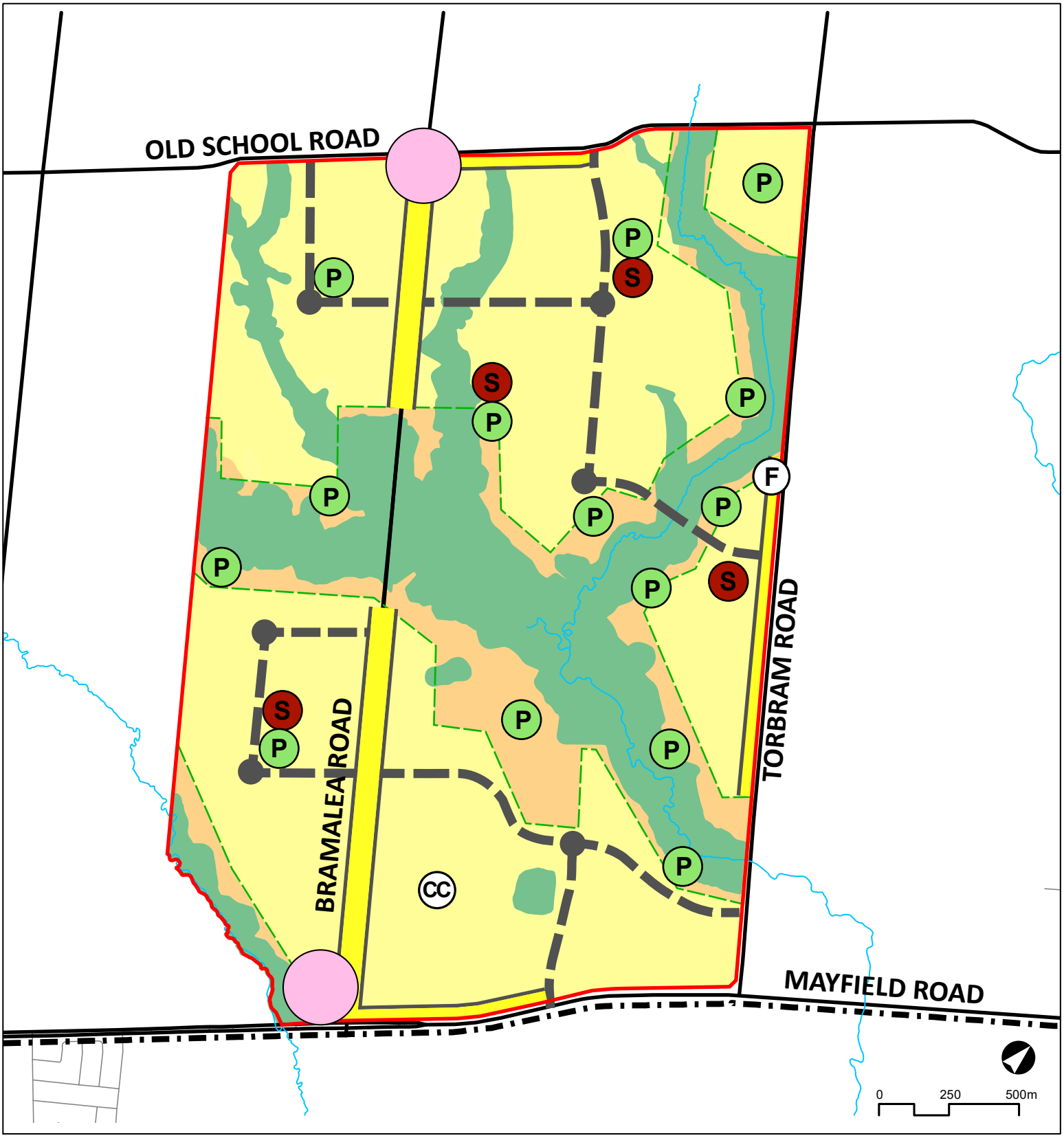
Region of Peel
working with you

October 2023
Water & Wastewater Planning, Public Works
Map ID: 3870-W-DC Water Map 2024_2
Data Source: Region of Peel
Scale: 1:68,000 | NAD83 UTM zone 17N

ATTACHMENT B

PRELIMINARY SANITARY DESIGN SHEET AND STRUCTURE PLAN

SCS consulting group ltd



Schedule 'A' to XXX

Preliminary Land Use and Transportation Plan

- Mayfield Tullamore Secondary Plan Area
- Neighbourhood Area
- Natural Features and Areas
- Open Space
- P Conceptual Park Location
- S Conceptual School Location
- Neighbourhood Centre
- F Proposed Fire Station
- Conceptual Collector Road
- Roundabout
- Urban Corridor
- Greenbelt Boundary
- CC Conceptual Community Centre

Sanitary Design Sheet
Mayfield Tullamore Landowner Group
MESP
Town of Caledon, Region of Peel

Minimum Sewer Diameter (mm) =	**200**	**Avg. Domestic Flow (l/cap/day) =**	**290**
Mannings n =	**0.013**	**Avg. Non-Residential Flow (l/emp/day) =**	**270**
Minimum Velocity (m/s) =	**0.75**	**Infiltration Rate (l/s/ha) =**	**0.26**
Maximum Velocity (m/s) =	**3**	**Max. Harmon Peaking Factor =**	**4.0**
Minimum Pipe Slope (%) =	**0.50**	**Min. Harmon Peaking Factor =**	**2.0**
		NOMINAL PIPE SIZE USED	

Notes:
1. Population Density based on discussions with Region staff
2. Per capita sanitary flow of 285 L/day per Region of Peel standards
3. Area and population per Sanitary Drainage Plan (Drawing SAN-01) and Pipe Design Sheet dated March 28, 2024 prepared by Crozier Consulting Engineers

Project: Mayfield Tullamore Landowner Group
Project No. 2699
Date: 9-Aug-24
Designed By: G.M.
Reviewed By: N.D.M.

P:\2699 Mayfield Tullamore Landowner Group\Design\Pipe Design\Sanitary\2024 07(Jul) 17 - Prelim Sani Sizing\[2699 - Sanitary Sheet Design.xlsm]Design

LOCATION			RESIDENTIAL							INDUSTRIAL/COMMERCIAL/INSTITUTIONAL					FLOW CALCULATIONS								PIPE DATA				
STREET	MANHOLE		AREA	ACCUM. AREA	UNITS	DENSITY		RESIDENTIAL POPULATION	ACCUM. RESIDENTIAL POPULATION	AREA	ACCUM. AREA	POPULATION DENSITY	FLOW RATE	ACCUM. EQUIV. POPULATION	INFILTRATION	TOTAL ACCUM. POPULATION	AVG. DOMESTIC FLOW	ACCUM. AVG. DOMESTIC FLOW	PEAKING FACTOR	PEAKED RESIDENTIAL FLOW	ICI FLOW	TOTAL FLOW	LENGTH	PIPE DIAMETER	SLOPE	FULL FLOW CAPACITY	FULL FLOW VELOCITY
	FROM	TO				PER UNIT	PER HA																				
			(ha)	(ha)	(#)	(p/unit)	(p/ha)			(ha)	(ha)	(p/ha)	(l/s/ha)		(L/s)		(L/s)	(L/s)		(L/s)	(L/s)	(L/s)	(m)	(mm)	(%)	(L/s)	(m/s)
CATCHMENT 101			14.82	0.00																							
Single/Semi-Detached	101-1	101-2	10.97	10.97	274	4.20		1152	1152	0.00	0.00	0.00	0.00	0	2.85	1152	3.87	3.87	3.76	14.53	0.00	17.39	100.00	200.00	0.50	23.18	UNDER
Street Townhouses	101-2	102-1	3.85	14.82	193	3.40		655	1807	0.00	0.00	0.00	0.00	0	3.85	1807	2.20	6.07	3.62	21.95	0.00	25.81	100.00	250.00	0.50	42.03	0.86
Catchment EXT1[1,2]	EXT1-1	EXT2-1	73.81	73.81	0		70.00	5167	5167	0.00	0.00	0.00	0.00	0	19.19	5167	17.04	17.04	3.23	55.08	0.00	74.27	100.00	375.00	0.50	123.91	1.12
Catchment EXT2[1,2]	EXT2-1	102-4	52.15	125.96	0		70.00	3651	8817	0.00	0.00	0.00	0.00	0	32.75	8817	12.04	29.08	3.01	87.51	0.00	120.26	100.00	450.00	0.50	201.50	1.27
CATCHMENT 102			33.62	0.00																							
Apartments (NC)	102-1	102-2	3.27	18.09	491	2.70		1324	3131	0.00	0.00	0.00	0.00	0	4.70	3131	4.45	10.51	3.43	36.01	0.00	40.72	100.00	300.00	0.50	68.34	0.97
Stacked Townhouses (UC)	102-2	102-3	4.91	23.00	491	3.40		1669	4801	0.00	0.00	0.00	0.00	0	5.98	4801	5.60	16.11	3.26	52.55	0.00	58.53	100.00	300.00	0.50	68.34	0.97
Single/Semi-Detached	102-3	102-4	18.83	41.83	471	4.20		1977	6778	0.00	0.00	0.00	0.00	0	10.88	6778	6.64	22.75	3.12	70.98	0.00	81.85	100.00	375.00	0.50	123.91	1.12
Street Townhouses	102-4	103-1	6.61	174.41	331	3.40		1125	16719	0.00	0.00	0.00	0.00	0	45.35	16719	3.77	55.61	2.73	151.85	0.00	197.20	100.00	525.00	0.50	303.95	1.40
CATCHMENT 103			10.86	0.00																							
Apartments (NC)	103-1	103-2	1.96	176.37	294	2.70		794	17513	0.00	0.00	0.00	0.00	0	45.85	17513	2.66	58.27	2.71	157.94	0.00	203.80	100.00	525.00	0.50	303.95	1.40
Stacked Townhouses (UC)	103-2	103-3	6.00	182.37	600	3.40		2040	19553	0.00	0.00	0.00	0.00	0	47.41	19553	6.85	65.12	2.66	173.37	0.00	220.78	100.00	525.00	0.50	303.95	1.40
Single/Semi-Detached	103-3	103-4	2.15	184.51	54	4.20		225	19778	0.00	0.00	0.00	0.00	0	47.97	19778	0.76	65.88	2.66	175.05	0.00	223.03	100.00	525.00	0.50	303.95	1.40
Street Townhouses	103-4	104-1	0.75	185.27	38	3.40		128	19907	0.00	0.00	0.00	0.00	0	48.17	19907	0.43	66.31	2.65	176.01	0.00	224.18	100.00	525.00	0.50	303.95	1.40
Catchment EXT3[1,2]	EXT3-1	EXT4-1	20.15	20.15	0		70.00	1411	1411	0.00	0.00	0.00	0.00	0	5.24	1411	4.65	4.65	3.70	17.21	0.00	22.45	100.00	250.00	0.50	42.03	0.86
Catchment EXT4[1,2]	EXT4-1	104-4	44.29	64.44	0		70.00	3100	4511	0.00	0.00	0.00	0.00	0	16.75	4511	10.23	14.88	3.29	48.90	0.00	65.65	100.00	375.00	0.50	123.91	1.12
CATCHMENT 104			83.13	0.00																							
Schools	104-1	104-2	0.00	185.27	0			0	19907	5.60	5.60	160.71	0.00	900	49.62	20807	2.81	69.12	2.64	182.14	0.00	231.77	100.00	525.00	0.50	303.95	1.40
Stacked Townhouses (UC)	104-2	104-3	1.69	186.96	169	3.40		575	20481	0.00	5.60	0.00	0.00	900	50.06	21381	1.93	71.05	2.62	186.38	0.00	236.45	100.00	525.00	0.50	303.95	1.40
Single/Semi-Detached	104-3	104-4	56.12	243.08	1403	4.20		5893	26374	0.00	5.60	0.00	0.00	900	64.66	27274	19.78	90.83	2.52	228.71	0.00	293.36	100.00	600.00	0.50	433.95	1.53
Street Townhouses	104-4	105-6	19.72	327.24	986	3.40		3352	34237	0.00	5.60	0.00	0.00	900	86.54	35137	11.25	116.96	2.41	281.89	0.00	368.43	100.00	600.00	0.50	433.95	1.53
CATCHMENT 105			17.71	0.00																							
Schools	105-1	105-2	0.00	0.00	0			0	0	2.10	2.10	214.29	0.00	450	0.55	450	1.41	1.41	4.00	5.62	0.00	6.17	100.00	200.00	0.50	23.18	UNDER
Medium Density	105-2	105-3	1.46	1.46	0		175.00	256	256	0.00	2.10	0.00	0.00	450	0.93	706	0.86	2.26	3.89	8.81	0.00	9.74	100.00	200.00	0.50	23.18	UNDER
Firehall	105-3	105-4	0.00	1.46	0			0	256	1.00	3.10	50.00	0.00	500	1.19	756	0.16	2.42	3.88	9.38	0.00	10.56	100.00	200.00	0.50	23.18	UNDER
Commercial	105-4	105-5	0.00	1.46	0			0	256	0.50	3.60	50.00	0.00	525	1.32	781	0.08	2.50	3.87	9.66	0.00	10.98	100.00	200.00	0.50	23.18	UNDER
Single/Semi-Detached	105-5	105-6	9.36	10.82	234	3.64		852	1107	0.00	3.60	0.00	0.00	525	3.75	1632	2.86	5.36	3.65	19.57	0.00	23.32	100.00	250.00	0.50	42.03	0.86
Street Townhouses	105-6	EXT5-1	3.29	341.35	164	3.40		559	35904	0.00	9.20	0.00	0.00	1425	91.14	37329	1.84	124.16	2.38	296.10	0.00	387.24	100.00	600.00	0.50	433.95	1.53
CATCHMENT 201			12.31	0.00																							
Medium Density	201-1	201-2	2.60	2.60	0		175.00	455	455	0.00	0.00	0.00	0.00	0	0.68	455	1.53	1.53	3.99	6.10	0.00	6.78	100.00	200.00	0.50	23.18	UNDER
Single/Semi-Detached	201-2	201-3	7.19	9.79	180	4.20		754	1209	0.00	0.00	0.00	0.00	0	2.54	1209	2.53	4.06	3.75	15.20	0.00	17.75	100.00	200.00	0.50	23.18	UNDER
Street Townhouses	201-3	EXT5-1	2.52	12.31	126	3.40		429	1639	0.00	0.00	0.00	0.00	0	3.20	1639	1.44	5.50	3.65	20.08	0.00	23.28	100.00	250.00	0.50	42.03	0.86
Catchment EXT7[1,2]	EXT7-1	EXT6-1	18.68	18.68	0		70.00	1308	1308	0.00	0.00	0.00	0.00	0	4.86	1308	4.31	4.31	3.72	16.05	0.00	20.91	100.00	250.00	0.50	42.03	0.86
Catchment EXT8[1,2]	EXT8-1	EXT6-1	0.00	0.00	0			0	0	22.36	22.36	70.00	0.00	1565	5.81	1565	5.16	5.16	3.67	18.93	0.00	24.74	100.00	250.00	0.50	42.03	0.86

Sanitary Design Sheet
Mayfield Tullamore Landowner Group
MESP
Town of Caledon, Region of Peel

Minimum Sewer Diameter (mm) =	**200**	**Avg. Domestic Flow (l/cap/day) =**	**290**
Mannings n =	**0.013**	**Avg. Non-Residential Flow (l/emp/day) =**	**270**
Minimum Velocity (m/s) =	**0.75**	**Infiltration Rate (l/s/ha) =**	**0.26**
Maximum Velocity (m/s) =	**3**	**Max. Harmon Peaking Factor =**	**4.0**
Minimum Pipe Slope (%) =	**0.50**	**Min. Harmon Peaking Factor =**	**2.0**
		NOMINAL PIPE SIZE USED	

Notes:
1. Population Density based on discussions with Region staff
2. Per capita sanitary flow of 285 L/day per Region of Peel standards
3. Area and population per Sanitary Drainage Plan (Drawing SAN-01) and Pipe Design Sheet dated March 28, 2024 prepared by Crozier Consulting Engineers

Project: Mayfield Tullamore Landowner Group
Project No. 2699
Date: 9-Aug-24
Designed By: G.M.
Reviewed By: N.D.M.

P:\2699 Mayfield Tullamore Landowner Group\Design\Pipe Design\Sanitary\2024 07(Jul) 17 - Prelim Sani Sizing\[2699 - Sanitary Sheet Design.xlsm]Design

LOCATION			RESIDENTIAL							INDUSTRIAL/COMMERCIAL/INSTITUTIONAL					FLOW CALCULATIONS								PIPE DATA				
STREET	MANHOLE		AREA	ACCUM. AREA	UNITS	DENSITY		RESIDENTIAL POPULATION	ACCUM. RESIDENTIAL POPULATION	AREA	ACCUM. AREA	POPULATION DENSITY	FLOW RATE	ACCUM. EQUIV. POPULATION	INFILTRATION	TOTAL ACCUM. POPULATION	AVG. DOMESTIC FLOW	ACCUM. AVG. DOMESTIC FLOW	PEAKING FACTOR	PEAKED RESIDENTIAL FLOW	ICI FLOW	TOTAL FLOW	LENGTH	PIPE DIAMETER	SLOPE	FULL FLOW CAPACITY	FULL FLOW VELOCITY
	FROM	TO				PER UNIT	PER HA																				
			(ha)	(ha)	(#)	(p/unit)	(p/ha)			(ha)	(ha)	(p/ha)	(l/s/ha)		(L/s)		(L/s)	(L/s)		(L/s)	(L/s)	(L/s)	(m)	(mm)	(%)	(L/s)	
CATCHMENT 301			11.82	0.00																							
Apartments (NC)	301-1	301-2	3.39	3.39	509	2.70		1373	1373	0.00	0.00	0.00	0.00	0	0.88	1373	4.61	4.61	3.71	17.08	0.00	17.96	100.00	200.00	0.50	23.18	UNDER
Single/Semi-Detached	301-2	301-3	6.24	9.63	156	4.20		655	2028	0.00	0.00	0.00	0.00	0	2.50	2028	2.20	6.81	3.58	24.38	0.00	26.88	100.00	250.00	0.50	42.03	0.86
Street Townhouses	301-3	EXT6-1	2.19	11.82	110	3.40		373	2401	0.00	0.00	0.00	0.00	0	3.07	2401	1.25	8.06	3.52	28.39	0.00	31.46	100.00	250.00	0.50	42.03	0.86
Catchment EXT6	EXT6-1	EXT5-1	0.00	30.50	0			0	3708	102.60	124.96	50.00	0.00	6695	40.42	10404	16.03	33.57	2.94	98.60	0.00	139.02	100.00	450.00	0.50	201.50	1.27
Catchment EXT5[3]	EXT5-1	ST-009	0.00	384.16	0			0	41251	70.77	204.93	27.43	0.00	10061	153.16	51312	6.07	169.29	2.25	381.60	0.00	534.77	100.00	750.00	0.35	658.29	1.49
Catchment EXT9	EXT9-1	EXT10-1	0.00	0.00	0			0	0	37.30	37.30	19.62	0.00	732	9.70	732	2.29	2.29	3.88	8.88	0.00	18.58	100.00	300.00	1.00	96.65	1.37
Catchment EXT10[3]	EXT10-1	Airport Road	0.00	0.00	0			0	0	39.15	76.45	32.51	0.00	2005	19.88	2005	3.98	6.26	3.58	22.46	0.00	42.34	100.00	300.00	0.50	68.34	0.97
Catchment EXT11[3]	EXT11-1	Block 48-2	2.31	2.31	0		175.00	404	404	0.00	0.00	0.00	0.00	0	0.60	404	1.36	1.36	4.00	5.43	0.00	6.03	100.00	200.00	0.50	23.18	UNDER
CATCHMENT 401			23.18	0.00																							
Apartments (NC)	401-1	401-2	5.91	5.91	887	2.70		2394	2394	0.00	0.00	0.00	0.00	0	1.54	2394	8.03	8.03	3.52	28.31	0.00	29.85	100.00	250.00	0.50	42.03	0.86
Single/Semi-Detached	401-2	401-3	12.78	18.69	319	4.20		1342	3735	0.00	0.00	0.00	0.00	0	4.86	3735	4.50	12.54	3.36	42.12	0.00	46.98	100.00	300.00	0.50	68.34	0.97
Street Townhouses	401-3	Block 48-2	4.49	23.18	224	3.40		763	4498	0.00	0.00	0.00	0.00	0	6.03	4498	2.56	15.10	3.29	49.63	0.00	55.66	100.00	300.00	0.50	68.34	0.97
CATCHMENT 501			38.04	0.00																							
Stacked Townhouses (UC)	501-1	501-2	2.33	2.33	233	3.40		792	792	0.00	0.00	0.00	0.00	0	0.61	792	2.66	2.66	3.86	10.27	0.00	10.88	100.00	200.00	0.50	23.18	UNDER
Single/Semi-Detached	501-2	501-3	26.43	28.76	661	4.20		2775	3567	0.00	0.00	0.00	0.00	0	7.48	3567	9.31	11.97	3.38	40.44	0.00	47.91	100.00	300.00	0.50	68.34	0.97
Street Townhouses	501-3	Block 48-2	9.28	38.04	464	3.40		1578	5145	0.00	0.00	0.00	0.00	0	9.89	5145	5.30	17.27	3.23	55.84	0.00	65.73	100.00	375.00	0.50	123.91	1.12
Catchment EXT17[1,2]	EXT17-1	Dixie Road	0.00	0.00	0			0	0	60.39	60.39	70.00	0.00	4227	15.70	4227	13.94	13.94	3.31	46.18	0.00	61.88	100.00	375.00	0.50	123.91	1.12
Catchment EXT16[1,2]	EXT16-1	Dixie Road	0.00	0.00	0			0	0	61.55	61.55	70.00	0.00	4309	16.00	4309	14.21	14.21	3.30	46.96	0.00	62.96	100.00	375.00	0.50	123.91	1.12
Catchment EXT15[1]	EXT15-1	EXT13-1	0.00	0.00	0			0	0	51.88	51.88	150.00	0.00	7782	13.49	7782	24.32	24.32	3.06	74.46	0.00	87.95	100.00	375.00	0.50	123.91	1.12
Catchment EXT14[1]	EXT14-1	EXT13-1	0.00	0.00	0			0	0	88.99	88.99	150.00	0.00	13349	23.14	13349	41.71	41.71	2.83	118.02	0.00	141.16	100.00	450.00	0.50	201.50	1.27
Catchment EXT13[1]	EXT13-1	601-5	0.00	0.00	0			0	0	33.98	174.85	150.00	0.00	26228	45.46	26228	15.93	81.96	2.53	207.76	0.00	253.22	100.00	525.00	0.50	303.95	1.40
CATCHMENT 601			69.74	0.00																							
Schools	601-1	601-2	0.00	0.00	0			0	0	2.40	2.40	187.50	0.00	450	0.62	450	1.41	1.41	4.00	5.62	0.00	6.25	100.00	200.00	0.50	23.18	UNDER
Apartments (NC)	601-2	601-3	6.28	6.28	942	2.70		2543	2543	0.00	2.40	0.00	0.00	450	2.26	2993	8.54	9.94	3.44	34.24	0.00	36.49	100.00	250.00	0.50	42.03	0.86
Stacked Townhouses (UC)	601-3	601-4	9.13	15.41	913	3.40		3104	5648	0.00	2.40	0.00	0.00	450	4.63	6098	10.42	20.36	3.16	64.43	0.00	69.06	100.00	375.00	0.50	123.91	1.12
Single/Semi-Detached	601-4	601-5	38.43	53.84	961	4.20		4035	9682	0.00	2.40	0.00	0.00	450	14.62	10132	13.54	33.90	2.95	99.99	0.00	114.61	100.00	450.00	0.50	201.50	1.27
Street Townhouses	601-5	ST-208	13.50	67.34	675	3.40		2295	11978	0.00	177.25	0.00	0.00	26678	63.59	38655	7.70	123.57	2.37	292.89	0.00	356.48	100.00	600.00	0.50	433.95	1.53
CATCHMENT 602			35.10	0.00																							
Existing Schools	602-1	602-2	0.00	0.00	0			0	0	10.86	10.86	110.50	0.00	1200	2.82	1200	3.75	3.75	3.75	14.05	0.00	16.88	100.00	200.00	0.50	23.18	UNDER
Existing Rec Centre	602-2	602-3	0.00	0.00	0			0	0	3.93	14.79	50.00	0.00	1397	3.85	1397	0.61	4.36	3.70	16.15	0.00	20.00	100.00	250.00	0.50	42.03	0.86
Community Centre	602-3	602-4	0.00	0.00	0			0	0	5.00	19.79	50.00	0.00	1647	5.15	1647	0.78	5.15	3.65	18.78	0.00	23.93	100.00	250.00	0.50	42.03	0.86
Stacked Townhouses (UC)	602-4	602-5	5.41	5.41	541	3.40		1839	1839	0.00	19.79	0.00	0.00	1647	6.55	3486	6.17	11.32	3.39	38.33	0.00	44.88	100.00	300.00	0.50	68.34	0.97
Single/Semi-Detached	602-5	602-6	10.23	15.64	256	4.20		1075	2914	0.00	19.79	0.00	0.00	1647	9.21	4560	3.61	14.93	3.28	48.98	0.00	58.20	100.00	300.00	0.50	68.34	0.97
Street Townhouses	602-6	ST-208	3.60	19.24	180	3.40		611	3525	0.00	19.79	0.00	0.00	1647	10.15	5172	2.05	16.98	3.23	54.86	0.00	65.01	100.00	375.00	0.50	123.91	1.12

Sanitary Design Sheet
Mayfield Tullamore Landowner Group
MESP
Town of Caledon, Region of Peel

Minimum Sewer Diameter (mm) =	**200**	**Avg. Domestic Flow (l/cap/day) =**	**290**
Mannings n =	**0.013**	**Avg. Non-Residential Flow (l/emp/day) =**	**270**
Minimum Velocity (m/s) =	**0.75**	**Infiltration Rate (l/s/ha) =**	**0.26**
Maximum Velocity (m/s) =	**3**	**Max. Harmon Peaking Factor =**	**4.0**
Minimum Pipe Slope (%) =	**0.50**	**Min. Harmon Peaking Factor =**	**2.0**
		NOMINAL PIPE SIZE USED	

Notes:
1. Population Density based on discussions with Region staff
2. Per capita sanitary flow of 285 L/day per Region of Peel standards
3. Area and population per Sanitary Drainage Plan (Drawing SAN-01) and Pipe Design Sheet dated March 28, 2024 prepared by Crozier Consulting Engineers

Project: Mayfield Tullamore Landowner Group
Project No. 2699
Date: 9-Aug-24
Designed By: G.M.
Reviewed By: N.D.M.

P:\2699 Mayfield Tullamore Landowner Group\Design\Pipe Design\Sanitary\2024 07(Jul) 17 - Prelim Sani Sizing\[2699 - Sanitary Sheet Design.xlsm]Design

LOCATION			RESIDENTIAL							INDUSTRIAL/COMMERCIAL/INSTITUTIONAL					FLOW CALCULATIONS								PIPE DATA				
STREET	MANHOLE		AREA	ACCUM. AREA	UNITS	DENSITY		RESIDENTIAL POPULATION	ACCUM. RESIDENTIAL POPULATION	AREA	ACCUM. AREA	POPULATION DENSITY	FLOW RATE	ACCUM. EQUIV. POPULATION	INFILTRATION	TOTAL ACCUM. POPULATION	AVG. DOMESTIC FLOW	ACCUM. AVG. DOMESTIC FLOW	PEAKING FACTOR	PEAKED RESIDENTIAL FLOW	ICI FLOW	TOTAL FLOW	LENGTH	PIPE DIAMETER	SLOPE	FULL FLOW CAPACITY	FULL FLOW VELOCITY
	FROM	TO				PER UNIT	PER HA																				
			(ha)	(ha)	(#)	(p/unit)	(p/ha)			(ha)	(ha)	(p/ha)	(l/s/ha)		(L/s)		(L/s)	(L/s)		(L/s)	(L/s)	(L/s)	(m)	(mm)	(%)	(L/s)	(m/s)
Catchment EXT12	EXT12-1	ST-208	1.73	1.73	0		175.00	303	303	0.00	0.00	0.00	0.00	0	0.45	303	1.02	1.02	4.00	4.06	0.00	4.51	100.00	200.00	0.50	23.18	UNDER
Bramalea Road	ST-208	ST-012	0.00	88.31	0			0	15806	0.00	197.04	0.00	0.00	28324	74.19	44130	0.00	141.56	2.32	327.78	0.00	401.97	100.00	675.00	0.50	594.08	1.66