

Memorandum

To	Justin Rousseau, Corporate Leader – Finance
From	Gary Scandlan, Managing Partner, Watson & Associates Economists Ltd.
Date	August 17, 2022
Re:	Municipality of Lakeshore's Water and Wastewater Rate Analysis

Fax ☐ Courier ☐ Mail ☐ Email ☒

1. Introduction

In 2018, Watson & Associates (Watson) undertook a Water and Wastewater Rate Study for the Municipality. This study calculated the water and wastewater rates for 2019 to 2028. The rate forecast was prepared to fund both projected operating and capital expenditures while beginning to build water and wastewater reserve/reserve fund balances to provide for future asset replacement needs.

The Municipality is in the process of undertaking a plant expansion to the Denis St. Pierre Water Pollution Control Plant. The 2018 Water and Wastewater Rate Study identified capital costs of approximately \$18 million (2018\$). This was based on construction and associated tender prices at that time. The COVID-19 pandemic has been a significant factor in the increase in tender prices for construction. The revised estimate based on current tender prices is \$53.90 million. Although this project is included in the D.C. Background Study as a growth-related project, 10% of the costs are to be funded from wastewater rates. As a result, this memo provides an update to the wastewater rates to reflect these updated costs. The analysis provided herein reflects 2022 budget information and updated volume and customer data.

In addition to updating the wastewater rates, the water rates are also being updated through this undertaking to reflect 2022 operating and capital budget information (as well as the current volume/customer information).

The following sections provide a summary of the updated rate calculations for water and wastewater. The detailed calculation tables for water are presented in Appendix A and the detailed calculation tables for wastewater are presented in Appendix B.

2. Existing Rates

The table below provides for the schedule of the existing rates for water and wastewater:



Table 2-1
Municipality of Lakeshore
Water and Wastewater Rates – 2022

2022 - Water Billing Rates		2022 - Wastewater Billing Rates	
Base Charge per Month		Base Charge per Month	
All Customers	\$20.85	All Customers	\$21.32
Volume Charge		Volume Charge	
\$ 1.560	per m ³	\$ 1.680	per m ³

3. Forecast Growth and Servicing Requirements

3.1 Customers

The Municipality of Lakeshore currently services 14,625 metered water customers and 10,180 wastewater customers (relative to 2018, this represents an increase of 528 customers for water and 629 for wastewater). Information on the existing number of customers and existing billable volumes was obtained from Municipal staff.

As the rate analysis forecasts out to 2028, consideration has been given to the potential growth in customers within the water and wastewater service areas. The forecasted increase in customers has been updated to reflect the growth forecast identified in the Municipality's 2020 D.C. Background Study.

The 2018 rate study forecast assumed the addition of 630 water customers and 540 wastewater customers between 2019 to 2021. Based on discussions with staff, the actual number of customers added to the system was 528 water customers and 629 wastewater customers. This equates to 102 less water customers and 89 more wastewater customers relative to the forecast in the 2018 rate study.

The forecast of new water and wastewater customers is provided below in Table 3-1. Table 3-2 presents the new and existing combined total customers between 2022 and 2028 (water customers are provided in the blue coloured tables, while wastewater customers are in green).



Table 3-1
Municipality of Lakeshore
2022 to 2028 User Forecast

Water Users Forecast

Year	Total Users	2022	2023	2024	2025	2026	2027	2028
2022	201	101	201	201	201	201	201	201
2023	202		101	202	202	202	202	202
2024	202			101	202	202	202	202
2025	202				101	202	202	202
2026	178					89	178	178
2027	177						89	177
2028	177							89
Total	1,969	101	302	504	706	896	1,074	1,251
cu.m./user	175	175	175	175	175	175	175	175
Annual Flow		17,675	52,850	88,200	123,550	156,800	187,950	218,925

Wastewater Users Forecast

Year	Total Users	2022	2023	2024	2025	2026	2027	2028
2022	201	101	201	201	201	201	201	201
2023	202		101	202	202	202	202	202
2024	202			101	202	202	202	202
2025	202				101	202	202	202
2026	178					89	178	178
2027	177						89	177
2028	177							89
Total	1,879	101	302	504	706	896	1,074	1,251
cu.m./user	175	175	175	175	175	175	175	175
Annual Flow		17,675	52,850	88,200	123,550	156,800	187,950	218,925



Table 3-2
Municipality of Lakeshore
2022 to 2028 New and Existing Customers

Water Customer Forecast

Water Customer Forecast	2022	2023	2024	2025	2026	2027	2028
Existing	14,625	14,625	14,625	14,625	14,625	14,625	14,625
New - Growth	101	302	504	706	896	1,074	1,251
Total	14,726	14,927	15,129	15,331	15,521	15,699	15,876

Wastewater Customer Forecast

Wastewater Customer Forecast	2022	2023	2024	2025	2026	2027	2028
Existing	10,180	10,180	10,180	10,180	10,180	10,180	10,180
New - Growth	101	302	504	706	896	1,074	1,251
Total	10,281	10,482	10,684	10,886	11,076	11,254	11,431



3.2 Volumes

For water, the prior rate study forecasted 3,612,821 cubic metres of total billable water volumes for 2021. Based on a review of actual data the total billable water volumes were 3,593,476 cubic metres, which represents a decrease of 0.5% relative to the forecast.

With respect to wastewater, the prior forecast provided for 2,591,840 cubic metres of wastewater billable volumes. Actual data provided for total wastewater billable volumes of 2,678,595 cubic metres in 2021, which represents an increase of 3.4%.

Table 3-2 (presented in the prior section) identified the actual number of customers for 2021 along with the forecast for 2022 to 2028 presented in Table 3-1. At the bottom of Table 3-1, a forecast of additional volumes was provided based on an assumed billing usage of 175 cubic metres per year. The total volumes for 2022 to 2028 is presented in Table 3-3 which provides for the volume forecast along with volumes for existing customers.



Table 3-3
Municipality of Lakeshore
Forecasted and Billable Volumes

Water Volumes

Water Billable Volume Forecast (cu.m.)	2022	2023	2024	2025	2026	2027	2028
Existing	3,593,476	3,593,476	3,593,476	3,593,476	3,593,476	3,593,476	3,593,476
New	17,675	52,850	88,200	123,550	156,800	187,950	218,925
Total Billable Volume	3,611,151	3,646,326	3,681,676	3,717,026	3,750,276	3,781,426	3,812,401

Wastewater Billable Volumes

Wastewater Flows Forecast (cu.m.)	2022	2023	2024	2025	2026	2027	2028
Existing	2,678,595	2,678,595	2,678,595	2,678,595	2,678,595	2,678,595	2,678,595
New	17,675	52,850	88,200	123,550	156,800	187,950	218,925
Total	2,696,270	2,731,445	2,766,795	2,802,145	2,835,395	2,866,545	2,897,520



4. Capital Infrastructure Needs

Capital forecasts for the water and wastewater systems were updated as part of this study. The 2018 rate study provided for water expenditures of \$34.99 million and wastewater expenditures of \$36.06 million over the 2022 to 2028 forecast period (note: these costs are in uninflated 2018 dollars). These costs have now been updated and provide for water expenditures of \$44.14 million and wastewater expenditures of \$79.99 million. This represents an increase of \$9.15 million for water and \$43.93 million for wastewater. These forecasts are presented below in Tables 4-1 and 4-2 for water and wastewater respectively (note: the costs provided in the table are in uninflated dollars based on 2022 values).



Table 4-1
Municipality of Lakeshore
2022 to 2028 Water Capital Forecast (Uninflated \$)

Description	Total	Forecast						
		2022	2023	2024	2025	2026	2027	2028
Capital Expenditures								
Comber Side Road Watermain Replacement Preliminary Design. (Design & Engineering)	612,177	612,177						
Filter Study Performance at John George WTP	72,000	72,000						
PLC (pro logic controller) Replacement at John George WTP	250,000	50,000	50,000	50,000	50,000	50,000		
Replacement of Unit # 616 - 2012 Ford F150 (Water Treatment)	50,000	50,000						
Replacement of Unit # 617 - 2012 GMC Savana Cargo (Water Distribution)	50,000	50,000						
Anchor Street Watermain Replacement (120m - 100mm CI)	62,000		62,000					
Muskie Lane Watermain Replacement (120m - 100mm CI)	62,000		62,000					
Machinery Replacements	4,601,000		1,815,000	11,000	391,000	94,000	6,000	2,284,000
Deerbrook Drive/Ruston Drive with River Crossing (680m -150mm CI)	371,000		371,000					
Construct new 100- or 150-mm-diameter watermain looping interconnection along Rochester Townline from Auction Side Road northerly across Kings Highway 401	487,000		487,000					
System Improvement - Construct new 200 & 300-mm-diameter trunk watermain along 11th Street from Broadway Street to St. Louis Street	541,000		541,000					
System Improvement- Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) across Kings Highway 401	541,000		541,000					
System Improvement - Construct new 100- or 150-mm-diameter . watermain looping interconnection along Lakeshore Road 305 across Kings Highway 401	442,000		442,000					
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) from Middle Road (County Road 46) southerly plus isolation valve facility on Middle Road (County Road 46) 650 m west of Gracie Sideroad (County Road 37)	442,000		442,000					
System Improvement - Construct new 300-mm-diameter trunk watermain along Comber Sideroad (County Road 35) from Tecumseh Road (County Road 2) to existing 200 mm dia. trunk watermain immediately south of the Canadian National Railway	221,000		221,000					
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) from County Road 8 northerly	366,000			366,000				
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) from Lakeshore Road 309 northerly	366,000			366,000				
Water Meter	1,864,000			347,000	359,000	372,000	386,000	400,000
Cast Iron Replacement- East Pike Creek Rd Watermain Replacement	517,000				517,000			
Cast Iron Replacement-- Hawthorn Drive Watermain Looping	431,000				431,000			
System Improvement - Construct new 100- or 150 -mm-diameter watermain looping interconnection along South Middle Road from Rochester Townline easterly	574,000				574,000			



Table 4-1 (Cont'd)

Description	Total	Forecast						
		2022	2023	2024	2025	2026	2027	2028
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Lakeshore Road 311 from Kings Highway 77 westerly	546,000				546,000			
Construct new 400-mm-diameter trunk watermain along County Road 22 from West Puce River Road to Wallace Line Road	1,436,000				1,436,000			
Comber Side Road Watermain Replacement Preliminary Design. (Construction)	4,928,022				4,928,022			
System Improvement - Construct new 100-or 150-mm-diameter watermain looping interconnection along South Middle Road from Lakeshore Road 309 easterly	557,000					557,000		
Cast Iron Replacement- Government Line from Comber to Haycroft Stations	2,390,000						2,390,000	
Cast Iron Replacement- Lakeshore Park Watermain Replacement	1,158,000							1,158,000
Rate Study Update	5,000	5,000						
	-							
Growth Related:	-							
County Road 22 Watermain Replacement	325,683	325,683						
Construct new 500 -mm-diameter, trunk watermain along Little Baseline Road from existing 500 -mm-diameter trunk watermain west of Patillo Road to existing 400 -mm- diameter watermain at Stonebrook Road	1,102,826		1,102,826					
Construct new 600 -mm-diameter trunk watermain along West Puce River Road from County Road 22 southerly to existing 600 mm dia. trunk watermain	828,000		828,000					
Construct new 400 -mm-diameter trunk watermain along Renaud Line Road from County Road 22 to Caille Avenue	594,400		594,400					
Construct new 400mm along Wallace Line Cty Rd 22 to Wallace Woods	676,000			676,000				
Construct a new 3,200-m3 elevated water tower located in the Community of Stoney Point in the general area of Comber Sideroad (County Road 35) and Tecumseh Road (County Road 2)	5,631,000			5,631,000				
Little Baseline-new water tower to replace existing MD	7,036,200				7,036,200			
Thru Wallace Woods- W Puce to Patillo - new 600 mm main	2,361,100				2,361,100			
Construct new 300-mm-diameter trunk watermain along Comber Sideroad (County Road 35) from St. Clair Road to existing 300 mm dia. trunk watermain immediately north of Tecumseh Road (County Road 2)	762,300				762,300			
Little Baseline-W Pike west to existing 150mm-new 400mm line	877,700					877,700		
	-							
Total Capital Expenditures	44,137,408	1,164,860	7,559,226	7,447,000	19,391,622	1,950,700	2,782,000	3,842,000



Table 4-2
Municipality of Lakeshore
2022 to 2028 Wastewater Capital Forecast (Uninflated \$)

Description	Total	Forecast						
		2022	2023	2024	2025	2026	2027	2028
Non-Growth-Related								
OCWA Capital Systems Repairs & Maintenance	9,980,000	2,820,000	1,120,000	1,630,000	3,250,000	1,160,000		
Rate Study Update	5,000	5,000						
Growth Related:								
Expand the Denis St. Pierre WPCP	54,000,000	54,000,000						
Belle River/Maidstone Conveyance (Puce to Manning)	16,000,000						16,000,000	
Total Capital Expenditures	79,985,000	56,825,000	1,120,000	1,630,000	3,250,000	1,160,000	16,000,000	-



5. Lifecycle Costing

A review of the Municipality's water and wastewater inventory information was completed as part of the 2018 rate study. For this update, no changes have been made to the capital forecast as a result of the lifecycle replacement costs identified.

6. Capital Cost Financing Options

As presented in the 2018 rate study there are a number of capital financing methods municipalities may utilize. These methods were discussed in detail in the 2018 rate study and are listed as follows:

- Development Charges Act, 1997 (as amended)
- Municipal Act
 - Fees and Charges
 - Sewer and Water Area Charges
 - Connection Fees
 - Local Improvements
- Grant Funding (when available)
- Reserves/Reserve Funds
- Debt Financing

Tables 6-1 and 6-2 provide for the full capital expenditure and funding program by year for water and wastewater (inflated), respectively.



Table 6-1
Municipality of Lakeshore
Capital Budget Forecast – Water
Inflated \$

Description	Total	Forecast						
		2022	2023	2024	2025	2026	2027	2028
Capital Expenditures								
Comber Side Road Watermain Replacement Preliminary Design. (Design & Engineering)	612,177	612,177	-	-	-	-	-	-
Filter Study Performance at John George WTP	72,000	72,000	-	-	-	-	-	-
PLC (pro logic controller) Replacement at John George WTP	260,000	50,000	51,000	52,000	53,000	54,000	-	-
Replacement of Unit # 616 - 2012 Ford F150 (Water Treatment)	50,000	50,000	-	-	-	-	-	-
Replacement of Unit # 617 - 2012 GMC Savana Cargo (Water Distribution)	50,000	50,000	-	-	-	-	-	-
Anchor Street Watermain Replacement (120m - 100mm CI)	63,000	-	63,000	-	-	-	-	-
Muskie Lane Watermain Replacement (120m - 100mm CI)	63,000	-	63,000	-	-	-	-	-
Machinery Replacements	4,958,000	-	1,851,000	11,000	415,000	102,000	7,000	2,572,000
Deerbrook Drive/Ruston Drive with River Crossing (680m - 150mm CI)	378,000	-	378,000	-	-	-	-	-
Construct new 100- or 150-mm-diameter watermain looping interconnection along Rochester Townline from Auction Side Road northerly across Kings Highway 401	497,000	-	497,000	-	-	-	-	-
System Improvement - Construct new 200 & 300-mm-diameter trunk watermain along 11th Street from Broadway Street to St. Louis Street	552,000	-	552,000	-	-	-	-	-
System Improvement- Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) across Kings Highway 401	552,000	-	552,000	-	-	-	-	-
System Improvement - Construct new 100- or 150-mm-diameter . watermain looping interconnection along Lakeshore Road 305 across Kings Highway 401	451,000	-	451,000	-	-	-	-	-
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) from Middle Road (County Road 46) southerly plus isolation valve facility on Middle Road (County Road 46) 650 m west of Gracie Sideroad (County Road 37)	451,000	-	451,000	-	-	-	-	-
System Improvement - Construct new 300-mm-diameter trunk watermain along Comber Sideroad (County Road 35) from Tecumseh Road (County Road 2) to existing 200 mm dia. trunk watermain immediately south of the Canadian National Railway	225,000	-	225,000	-	-	-	-	-



Table 6-1 (Cont'd)

Description	Total	Forecast						
		2022	2023	2024	2025	2026	2027	2028
Capital Expenditures								
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) from County Road 8 northerly	381,000	-	-	381,000	-	-	-	-
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) from Lakeshore Road 309 northerly	381,000	-	-	381,000	-	-	-	-
Water Meter	2,021,000	-	-	361,000	381,000	403,000	426,000	450,000
Cast Iron Replacement- East Pike Creek Rd Watermain Replacement	549,000	-	-	-	549,000	-	-	-
Cast Iron Replacement-- Hawthorn Drive Watermain Looping	457,000	-	-	-	457,000	-	-	-
System Improvement - Construct new 100- or 150 -mm-diameter watermain looping interconnection along South Middle Road from Rochester Townline easterly	609,000	-	-	-	609,000	-	-	-
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Lakeshore Road 311 from Kings Highway 77 westerly	579,000	-	-	-	579,000	-	-	-
Construct new 400-mm-diameter trunk watermain along County Road 22 from West Puce River Road to Wallace Line Road	1,524,000	-	-	-	1,524,000	-	-	-
Comber Side Road Watermain Replacement Preliminary Design. (Construction)	5,230,000	-	-	-	5,230,000	-	-	-
System Improvement - Construct new 100-or 150-mm-diameter watermain looping interconnection along South Middle Road from Lakeshore Road 309 easterly	603,000	-	-	-	-	603,000	-	-
Cast Iron Replacement- Government Line from Comber to Haycroft Stations	2,639,000	-	-	-	-	-	2,639,000	-
Cast Iron Replacement- Lakeshore Park Watermain Replacement	1,304,000	-	-	-	-	-	-	1,304,000
0	-	-	-	-	-	-	-	-
Growth Related:	-	-	-	-	-	-	-	-
County Road 22 Watermain Replacement	325,683	325,683	-	-	-	-	-	-
Construct new 500 -mm-diameter. trunk watermain along Little Baseline Road from existing 500 -mm-diameter trunk watermain west of Patillo Road to existing 400 -mm- diameter watermain at Stonebrook Road	1,125,000	-	1,125,000	-	-	-	-	-
Construct new 600 -mm-diameter trunk watermain along West Puce River Road from County Road 22 southerly to existing 600 mm dia. trunk watermain	845,000	-	845,000	-	-	-	-	-



Table 6-1 (Cont'd)

Description	Total	Forecast						
		2022	2023	2024	2025	2026	2027	2028
Construct new 400 -mm-diameter trunk watermain along Renaud Line Road from County Road 22 to Caille Avenue	606,000	-	606,000	-	-	-	-	-
Construct new 400mm along Wallace Line Cty Rd 22 to Wallace Woods	703,000	-	-	703,000	-	-	-	-
Construct a new 3,200-m3 elevated water tower located in the Community of Stoney Point in the general area of Comber Sideroad (County Road 35) and Tecumseh Road (County Road 2)	5,858,000	-	-	5,858,000	-	-	-	-
Little Baseline-new water tower to replace existing MD	7,467,000	-	-	-	7,467,000	-	-	-
Thru Wallace Woods- W Puce to Patillo - new 600 mm main	2,506,000	-	-	-	2,506,000	-	-	-
Construct new 300-mm-diameter trunk watermain along Comber Sideroad (County Road 35) from St. Clair Road to existing 300 mm dia. trunk watermain immediately north of Tecumseh Road (County Road 2)	809,000	-	-	-	809,000	-	-	-
Little Baseline-W Pike west to existing 150mm-new 400mm line	950,000	-	-	-	-	950,000	-	-
Total Capital Expenditures	46,710,860	1,164,860	7,710,000	7,747,000	20,579,000	2,112,000	3,072,000	4,326,000
Capital Financing								
Provincial/Federal Grants	-							
Development Charges Reserve Fund	9,437,515	325,683	1,479,612	2,177,084	4,902,368	552,769	-	-
Non-Growth Related Debenture Requirements	15,000,000	-	2,000,000	-	10,000,000	-	-	3,000,000
Growth Related Debenture Requirements	-	-	-	-	-	-	-	-
Operating Contributions	-	-	-	-	-	-	-	-
Water Contingency Reserve	-	-	-	-	-	-	-	-
Water General Reserve Fund	22,273,345	839,177	4,230,388	5,569,916	5,676,632	1,559,231	3,072,000	1,326,000
Water Plant Filter Reserve Fund	-	-	-	-	-	-	-	-
Water Working Fund Reserve	-	-	-	-	-	-	-	-
Total Capital Financing	46,710,860	1,164,860	7,710,000	7,747,000	20,579,000	2,112,000	3,072,000	4,326,000



Table 6-2
Municipality of Lakeshore
Capital Budget Forecast – Wastewater
Inflated \$

Description	Total	Forecast						
		2022	2023	2024	2025	2026	2027	2028
Capital Expenditures								
Non-Growth-Related								
OCWA Capital Systems Repairs & Maintenance	10,363,000	2,820,000	1,142,000	1,696,000	3,449,000	1,256,000	-	-
Rate Study Update	5,000	5,000	-	-	-	-	-	-
Growth Related:	-	-	-	-	-	-	-	-
Expand the Denis St. Pierre WPCP	54,000,000	54,000,000	-	-	-	-	-	-
Belle River/Maidstone Conveyance (Puce to Manning)	17,665,000	-	-	-	-	-	17,665,000	-
	-	-	-	-	-	-	-	-
Total Capital Expenditures	82,033,000	56,825,000	1,142,000	1,696,000	3,449,000	1,256,000	17,665,000	-
Capital Financing								
Provincial/Federal Grants	-							
Development Charges Reserve Fund	402,573	402,573	-	-	-	-	-	-
Non-Growth Related Debenture Requirements	25,545,928	11,141,000	1,142,000	-	3,449,000	-	9,813,928	-
Growth Related Debenture Requirements	53,132,499	45,281,427	-	-	-	-	7,851,072	-
Operating Contributions	-	-	-	-	-	-	-	-
Wastewater Capital Reserve	-	-	-	-	-	-	-	-
Wastewater General Reserve	2,952,000	-	-	1,696,000	-	1,256,000	-	-
Total Capital Financing	82,033,000	56,825,000	1,142,000	1,696,000	3,449,000	1,256,000	17,665,000	-



6.1 Debt Financing Capacity

Given the large debenture issuance for the wastewater treatment plant, a review of the Municipality's current debt capacity limitations was undertaken. Municipalities in Ontario have an Annual Repayment Limit (A.R.L.) which denotes the maximum debt payment amount (principal and interest) a municipality may incur. For most municipalities this is set at 25% of their own-source annual revenues (property taxes, user fees, and investment income) less annual long-term debt payments and other long-term financial obligations.

For Lakeshore, the 2021 A.R.L. is \$10,282,220. This means the Municipality may assume additional long-term debt as long as the additional payments do not exceed \$10,280,220. Based on a financing rate of 3% and estimated payback of 20 years, this would equate to issuing debt for approximately \$153 million.

Along with the need to finance the plant expansion with \$53 million in debt, this rate analysis also provides for the need to issue approximately \$15 million and \$25 million for water and wastewater non-growth related expenditures, respectively. The Municipality has also been considering expenditures of \$15 million to \$20 million related to the construction of a new Municipal building. Given no other significant expenditures have been identified at this time, the Municipality would appear to have the capacity of financing the identified works with external debt, however the debt limit will need to be closely monitored.

7. Reserves and Reserve Funds

To update the rate study calculations from the 2018 rate study, a review of the projected 2021 year-end balances in the reserves/reserve funds was undertaken relative to the actual balances. The following table summarizes the projected balances as compared to the actual balances.

Table 7-1
Municipality of Lakeshore
Comparison of 2021 Projected vs. 2021 Actual Year-end Reserve/Reserve Fund Balances

Reserve/Reserve Fund	2021 Projected	2021 Actual
Water Working Fund Reserve	\$1,061,541	\$1,061,541
Water General Reserve Fund	\$12,884,165	\$10,592,714
Water D.C. Reserve Fund	\$98,956	\$1,680,249
Water Contingency Reserve	\$319,172	\$319,172
Water Plant Filter Reserve Fund	\$1,091,439	\$1,092,162
Sub-Total Water	\$15,455,273	\$14,745,838



Reserve/Reserve Fund	2021 Projected	2021 Actual
Wastewater General Reserve Fund	\$211,015	(\$1,761,601)
Wastewater D.C. Reserve Fund	\$0	\$910,167
Wastewater Capital Reserve	\$521,690	\$1,279,262
Sub-Total Wastewater	\$732,705	\$427,828
Combined Total	\$16,187,978	\$15,173,666

8. Expenditures and Revenues

8.1 Water Operating Expenditures

The operating budget provides for two distinct components. The first component provides for the day to day operating expenditures related to staffing costs, hydro, materials, fuel, etc. The second component provides for capital related expenditures i.e., debt charges and reserve/reserve fund transfers.

In regard to the first component, the forecast budget figures (2023 to 2028) are based on the Municipality's 2022 operating budget. Each budget component was reviewed with staff to establish forecast adjustments, including inflationary adjustments. Most of the expenditures have been assumed to increase at a rate of 2.0% annually. Operating expenditures that involve utilities and fuel have been inflated by 8.0% annually. Water purchases from Tecumseh and Union Water have been inflated by 3.0% annually. Further, additional wages and benefits have been assumed for new full-time equivalents beginning in 2023.

With respect to the second component, existing debt charges have been continued across the entire forecast period. Annual contributions to the capital reserve fund have been increased above inflation in order to provide adequate amounts to fund the capital program and to offset any deficits expected in the development charge reserve fund.

8.2 Water Operating Revenues

There are three main components to the operating revenues: base charge, volume rates, and miscellaneous revenues. In regard to the latter, all miscellaneous revenues except for meter sales have been assumed to remain constant each year over the forecast period. The meter sales revenue is assumed to increase by 2.0% on an annual basis.

The base charges are discussed in more detail in Section 9 but are forecast to increase as a result of additional customers over the forecast period, plus a 4.0% annual increase to the base charge rate. Lastly the volume rates are discussed in more detail



in Section 10.1 but are also forecast to increase in conjunction with new customers and with a 4.0% annual rate increase.



Table 8-1
Municipality of Lakeshore
Operating Budget Forecast – Water (Inflated \$)

Description	Forecast						
	2022	2023	2024	2025	2026	2027	2028
Expenditures							
Operating Costs							
Wages and Benefits	3,084,126	3,255,800	3,320,900	3,387,300	3,455,000	3,524,100	3,594,600
Office Supplies	6,000	6,100	6,200	6,300	6,400	6,500	6,600
Advertising & Promotion	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Clothing Allowance	13,075	13,300	13,600	13,900	14,200	14,500	14,800
Meeting Expenses	500	500	500	500	500	500	500
Courier & Postage	75,000	76,500	78,000	79,600	81,200	82,800	84,500
Travel Expense	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Training & Conferences	39,500	40,300	41,100	41,900	42,700	43,600	44,500
Memberships & Subscriptions	8,900	9,100	9,300	9,500	9,700	9,900	10,100
Telecommunications	41,200	42,000	42,800	43,700	44,600	45,500	46,400
Computer Expense	31,378	32,000	32,600	33,300	34,000	34,700	35,400
Administration Fee	445,700	454,600	463,700	473,000	482,500	492,200	502,000
Bank Charges	3,500	3,600	3,700	3,800	3,900	4,000	4,100
Bad Debts & Writeoffs	500	500	500	500	500	500	500
Pagers & Radio Airtime	7,000	7,100	7,200	7,300	7,400	7,500	7,700
Service Fees	8,000	8,200	8,400	8,600	8,800	9,000	9,200
Consulting Services	35,200	35,900	36,600	37,300	38,000	38,800	39,600
Legal Services	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Grounds Maintenance	12,000	12,200	12,400	12,600	12,900	13,200	13,500
Winter Control Services	15,000	15,300	15,600	15,900	16,200	16,500	16,800
Locate Services	10,000	10,200	10,400	10,600	10,800	11,000	11,200
Water Meter Reading	35,000	35,000	35,000	35,000	35,000	35,000	35,000
Health & Safety Supplies	13,000	13,300	13,600	13,900	14,200	14,500	14,800
Materials & Supplies	121,900	124,300	126,800	129,300	131,900	134,500	137,200
Water Purchases - Tecumseh	26,000	26,800	27,600	28,400	29,300	30,200	31,100
Water Purchases - UWSS	312,000	321,400	331,000	340,900	351,100	361,600	372,400
Facility Maintenance	23,000	23,500	24,000	24,500	25,000	25,500	26,000
Janitorial Services	11,800	12,000	12,200	12,400	12,600	12,900	13,200
Property Taxes	90,000	91,800	93,600	95,500	97,400	99,300	101,300
Security Services	3,200	3,300	3,400	3,500	3,600	3,700	3,800



Table 8-1 (Cont'd)

Description	Forecast						
	2022	2023	2024	2025	2026	2027	2028
Fuel & Oil	61,000	65,900	71,200	76,900	83,100	89,700	96,900
Equipment Rental	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Insurance Premiums	181,788	185,400	189,100	192,900	196,800	200,700	204,700
Water Purification Chemicals	212,500	218,900	225,500	232,300	239,300	246,500	253,900
Water Sample Testing	53,000	54,100	55,200	56,300	57,400	58,500	59,700
Water Meters	10,000	10,200	10,400	10,600	10,800	11,000	11,200
Installations	37,500	38,300	39,100	39,900	40,700	41,500	42,300
System Repairs & Maintenance	477,000	486,500	496,200	506,100	516,200	526,500	537,000
Vehicle Repairs & Maintenance	35,500	36,200	36,900	37,600	38,400	39,200	40,000
Electricity	385,900	416,800	450,100	486,100	525,000	567,000	612,400
Expense Recovery	(390,000)	(397,800)	(405,800)	(413,900)	(422,200)	(430,600)	(439,200)
Sub Total Operating	5,933,667	6,193,900	6,351,400	6,514,700	6,684,100	6,859,600	7,041,900
Capital-Related							
Existing Debt (Principal) - Growth Related	993,782	1,023,566	1,054,326	1,086,053	1,119,288	825,036	851,789
Existing Debt (Interest) - Growth Related	239,823	210,038	179,278	147,551	114,690	82,836	56,084
New Growth Related Debt (Principal)	-	-	-	-	-	-	-
New Growth Related Debt (Interest)	-	-	-	-	-	-	-
Existing Debt (Principal) - Non-Growth Related	112,421	115,922	95,569	98,638	101,815	105,106	108,514
Existing Debt (Interest) - Non-Growth Related	26,962	23,460	20,090	17,021	13,844	10,553	7,145
New Non-Growth Related Debt (Principal)	-	-	166,582	173,245	1,013,084	1,053,608	1,095,752
New Non-Growth Related Debt (Interest)	-	-	80,000	73,337	466,407	425,884	383,739
Transfer to Capital	-	-	-	-	-	-	-
Transfer to Water Contingency Reserve	-	-	-	-	-	-	-
Transfer to Water General Reserve Fund	3,588,752	3,686,791	3,796,529	4,175,426	3,324,027	3,707,923	4,138,448
Transfer to DC Reserve Fund (from General Reserve)	-	-	1,660,000	4,640,000	370,000	-	-
Transfer to Water Plant Filter Reserve Fund	103,000	100,000	100,000	100,000	100,000	100,000	100,000
Transfer to Water Working Fund Reserve	-	-	-	-	-	-	-
Sub Total Capital Related	5,064,739	5,159,777	7,152,374	10,511,271	6,623,155	6,310,946	6,741,471
Total Expenditures	10,998,406	11,353,677	13,503,774	17,025,971	13,307,255	13,170,546	13,783,371



Table 8-1(Cont'd)

Description	Forecast						
	2022	2023	2024	2025	2026	2027	2028
Revenues							
Base Charge	3,684,445	3,884,125	4,094,154	4,314,772	4,542,975	4,778,879	5,026,069
Other Revenue							
Buy in fees	63,000	63,000	63,000	63,000	63,000	63,000	63,000
NSF Charges	1,750	1,800	1,800	1,800	1,800	1,800	1,800
New Account Setup Fees	23,700	23,700	23,700	23,700	23,700	23,700	23,700
Disconnect Fees	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Shutoff Fees	4,500	4,500	4,500	4,500	4,500	4,500	4,500
Miscellaneous	41,000	41,000	41,000	41,000	41,000	41,000	41,000
Interest Revenue	95,000	95,000	95,000	95,000	95,000	95,000	95,000
Watermain Revenue	23,723	-	-	-	-	-	-
Meter Sales	95,000	96,900	98,800	100,800	102,800	104,900	107,000
Transfer from Self-Insurance Reserve	96,288						
Contributions from Development Charges Reserve Fund	1,233,604	1,233,604	1,233,604	1,233,604	1,233,978	907,872	907,872
Contributions from General Reserve (interim loan to DC Reserve Fund)	-	-	1,660,000	4,640,000	370,000	-	-
Contributions from Reserves / Reserve Funds	-	-	-	-	-	-	-
Total Operating Revenue	5,365,010	5,446,629	7,318,559	10,521,176	6,481,753	6,023,651	6,272,941
Water Billing Recovery - Total	5,633,396	5,907,048	6,185,216	6,504,796	6,825,502	7,146,895	7,510,430



8.3 Wastewater Operating Expenditures

Similar to the discussion on water operating expenditures, the budget has two components. In regard to the first component, the forecast budget figures (2023 to 2028) are based on the Municipality's 2022 operating budget. Each budget component was reviewed with staff to establish forecast adjustments, including inflationary adjustments. Most of the expenditures have been assumed to increase at a rate of 2.0% annually. Operating expenditures that involve utilities, and fuel have been inflated by 8.0% annually.

Additional costs related to the O.C.W.A. operating contract have been assumed beginning in 2023. These costs are a result of the new Denis St. Pierre Treatment Plant. Only a portion of the full costs for the new infrastructure are included when the treatment plant begins operations as it will not be operating at full capacity until additional growth is in place. As a result, the full costs for operation are phased in over a ten year period beginning in 2023.

With respect to the second component, existing debt charges have been continued across the entire forecast period. Annual contributions to the capital reserve fund have been increased above inflation in order to provide adequate amounts to fund the capital program and to offset any deficits expected in the development charge reserve fund.

8.4 Wastewater Operating Revenues

The operating revenues for wastewater are very similar to that of water. Miscellaneous revenues have been assumed to increase at 2% each year over the forecast period whereas frontage and connection fees and collected on taxes fees are assumed to remain constant over the forecast period.

The base charges are discussed in more detail in Section 9 but are forecast to increase as a result of additional customers over the forecast period, plus a 9% annual increase to the base charge rate. Lastly the volume rates are discussed in more detail in Section 10.2 but are also forecast to increase in conjunction with new customers and with a 9% annual rate increase.



Table 8-2
Municipality of Lakeshore
Operating Budget Forecast – Wastewater (inflated \$)

Description	Forecast						
	2022	2023	2024	2025	2026	2027	2028
Expenditures							
Operating Costs							
Wages and Benefits	74,573	76,100	77,600	79,200	80,800	82,400	84,000
Advertising	500	500	500	500	500	500	500
Telephone	16,650	17,000	17,300	17,600	18,000	18,400	18,800
Utilities	893,900	965,400	1,042,600	1,126,000	1,216,100	1,313,400	1,418,500
Utility Locates	97,000	98,900	100,900	102,900	105,000	107,100	109,200
Property taxes	80,000	81,600	83,200	84,900	86,600	88,300	90,100
OCWA operating contract	2,057,283	3,349,400	3,541,500	3,739,900	3,944,800	4,156,400	4,374,900
System repairs & maintenance	324,800	331,300	337,900	344,700	351,600	358,600	365,800
Vehicle maintenance	8,000	8,200	8,400	8,600	8,800	9,000	9,200
Grass cutting	23,000	23,500	24,000	24,500	25,000	25,500	26,000
Administration	306,000	312,100	318,300	324,700	331,200	337,800	344,600
Administration - billing services	156,000	159,100	162,300	165,500	168,800	172,200	175,600
Consulting	125,000	127,500	130,100	132,700	135,400	138,100	140,900
Insurance	67,561	68,900	70,300	71,700	73,100	74,600	76,100
Snow removal	15,000	15,300	15,600	15,900	16,200	16,500	16,800
Refund for leaks	5,000	5,100	5,200	5,300	5,400	5,500	5,600
Infill & Infiltration	450,000	459,000	468,200	477,600	487,200	496,900	506,800
Sub Total Operating	4,700,267	6,098,900	6,403,900	6,722,200	7,054,500	7,401,200	7,763,400
Capital-Related							
Existing Debt (Principal) - Growth Related	508,555	465,804	425,461	444,169	463,701	484,091	505,378
Existing Debt (Interest) - Growth Related	196,585	175,800	155,747	137,039	117,507	97,117	75,830
New Growth Related Debt (Principal)	-	3,771,533	3,922,394	4,079,290	4,242,461	4,412,160	5,242,570
New Growth Related Debt (Interest)	-	1,811,257	1,660,396	1,503,500	1,340,328	1,170,630	1,308,186
Existing Debt (Principal) - Non-Growth Related	90,387	93,764	53,011	-	-	-	-
Existing Debt (Interest) - Non-Growth Related	7,464	4,086	1,104	-	-	-	-
New Non-Growth Related Debt (Principal)	-	927,944	1,060,180	1,102,588	1,433,962	1,491,320	2,368,384
New Non-Growth Related Debt (Interest)	-	445,640	454,202	411,795	505,651	448,293	781,197
Transfer to Capital	-	-	-	-	-	-	-
Transfer to DC Reserve Fund (from General Reserve)	-	-	-	-	580,000	1,350,000	2,220,000
Transfer to Capital Reserve	-	-	-	-	-	-	-
Transfer to General Reserve	2,668,973	1,995,113	2,522,567	3,138,806	3,839,561	4,599,327	5,458,721
Sub Total Capital Related	3,471,963	9,690,942	10,255,063	10,817,186	12,523,172	14,052,938	17,960,267
Total Expenditures	8,172,230	15,789,842	16,658,963	17,539,386	19,577,672	21,454,138	25,723,667



Table 8-2 (Cont'd)

Description	Forecast						
	2022	2023	2024	2025	2026	2027	2028
Revenues							
Base Charge	2,630,291	2,923,069	3,247,546	3,606,752	3,999,976	4,430,042	4,904,691
Other Revenue							
Frontage and connection	86,600	86,600	86,600	86,600	86,600	86,600	86,600
Collected on taxes	56,170	56,200	56,200	56,200	56,200	56,200	56,200
Miscellaneous revenue	28,985	29,600	30,200	30,800	31,400	32,000	32,600
Buy-in fee	-	-	-	-	-	-	-
Transfer from Self Insurance Reserve	37,461						
Contributions from Development Charges Reserve Fu	705,139	6,224,395	6,163,998	6,163,998	6,163,998	6,163,998	7,131,964
Contributions from General Reserve (to DC Reserve F	-	-	-	-	580,000	1,350,000	2,220,000
Contributions from Reserves / Reserve Funds	97,851	1,471,435	1,568,498	1,514,383	1,939,613	1,939,613	3,149,582
Total Operating Revenue	3,642,497	10,791,299	11,153,042	11,458,733	12,857,787	14,058,453	17,581,637
Wastewater Billing Recovery - Total	4,529,733	4,998,543	5,505,921	6,080,654	6,719,885	7,395,685	8,142,030



9. Base Charge

As discussed earlier in Section 8.1, the Municipality collects monthly base charges as part of the budgeted revenue for the water program. Table 9-1 provides for the forecast of base charge revenue for water. The base charge revenue is anticipated to see increases as a result of growth in the Municipality. Given the needs of the water system, the annual base charge rate for water has been indexed at 4% annually across the forecast period.

Table 9-2 provides the forecast for wastewater base charges. Similar to water, an increase in revenue is expected as a result of customer growth over the forecast period. Given the extensive capital and operating needs over the forecast period the annual base charge has been indexed at 9% annually across the forecast period.

Table 9-1
Municipality of Lakeshore
Base Charge Forecast – Water

Water	2022	2023	2024	2025	2026	2027	2028
Existing	14,625	14,625	14,625	14,625	14,625	14,625	14,625
New	101	302	504	706	896	1,074	1,251
Subtotal Customers	14,726	14,927	15,129	15,331	15,521	15,699	15,876
Total Annual Revenue	\$3,684,445	\$3,884,125	\$4,094,154	\$4,314,772	\$4,542,975	\$4,778,879	\$5,026,069

All Customers Meter Size	2022	2023	2024	2025	2026	2027	2028
Existing	14,625	14,625	14,625	14,625	14,625	14,625	14,625
New	101	302	504	706	896	1,074	1,251
Subtotal Customers	14,726	14,927	15,129	15,331	15,521	15,699	15,876
Monthly Base Charge	\$20.85	\$21.68	\$22.55	\$23.45	\$24.39	\$25.37	\$26.38
Annual Base Charge	\$250.20	\$260.21	\$270.62	\$281.44	\$292.70	\$304.41	\$316.58
Total Annual Revenue	\$3,684,445	\$3,884,125	\$4,094,154	\$4,314,772	\$4,542,975	\$4,778,879	\$5,026,069

Table 9-2
Municipality of Lakeshore
Base Charge Forecast – Wastewater

Wastewater	2022	2023	2024	2025	2026	2027	2028
Existing	10,180	10,180	10,180	10,180	10,180	10,180	10,180
New	101	302	504	706	896	1,074	1,251
Subtotal Customers	10,281	10,482	10,684	10,886	11,076	11,254	11,431
Total Annual Revenue	\$2,630,291	\$2,923,069	\$3,247,546	\$3,606,752	\$3,999,976	\$4,430,042	\$4,904,691

All Customers Meter Size	2022	2023	2024	2025	2026	2027	2028
Existing	10,180	10,180	10,180	10,180	10,180	10,180	10,180
New	101	302	504	706	896	1,074	1,251
Subtotal Customers	10,281	10,482	10,684	10,886	11,076	11,254	11,431
Monthly Base Charge	\$21.32	\$23.24	\$25.33	\$27.61	\$30.09	\$32.80	\$35.76
Annual Base Charge	\$255.84	\$278.87	\$303.96	\$331.32	\$361.14	\$393.64	\$429.07
Total Annual Revenue	\$2,630,291	\$2,923,069	\$3,247,546	\$3,606,752	\$3,999,976	\$4,430,042	\$4,904,691



10. Volume Rate Calculations

This chapter provides for the calculation of the volume rates over the forecast period. These calculations are based on the net operating expenditures provided in Section 8.1 and 8.3, divided by the water and wastewater volume forecasts provided in Section 3.

10.1 Water Rates

The following analysis provides for the continuance of the present rate structure. As noted above, the rates are calculated by taking the net recoverable amounts from Table 8-1 and dividing them by the volumes presented in Table 3-3. As noted in Section 8.1 the rate increases have been calculated to provide a 4% annual increase over the forecast period.

The volume rate calculations are presented in Table 10-1. Detailed calculations of the volume rates are provided in Appendix A. A summary of the recommended base charges and volume rates along with the total annual bill for an average residential user (who consumes 175 cu.m per year) are presented as follows:

Table 10-1
Municipality of Lakeshore
Average Annual Water Bill Based on 175 cu.m. of Annual Volumes

Description	2022	2023	2024	2025	2026	2027	2028
Monthly Base Rate	\$20.85	\$21.68	\$22.55	\$23.45	\$24.39	\$25.37	\$26.38
Annual Base Rate Bill	\$250.20	\$260.21	\$270.62	\$281.44	\$292.70	\$304.41	\$316.58
Volume Rate	\$1.56	\$1.62	\$1.68	\$1.75	\$1.82	\$1.89	\$1.97
Volume	175	175	175	175	175	175	175
Annual Volume Bill	\$273.00	\$283.50	\$294.00	\$306.25	\$318.50	\$330.75	\$344.75
Total Annual Bill	\$523.20	\$543.71	\$564.62	\$587.69	\$611.20	\$635.16	\$661.33
% Increase - Base Rate		4%	4%	4%	4%	4%	4%
% Increase - Volume Rate		4%	4%	4%	4%	4%	4%
% Increase - Total Annual Bill (rounded)		4%	4%	4%	4%	4%	4%

10.2 Wastewater Rates

Similar to water, the calculation of the wastewater rates takes the net recoverable amounts from Table 8-2 and completes the calculation by dividing those amounts by the billable volumes in Table 3-3. Detailed calculations are provided in Appendix B. Provided in Table 10-2 below is the average annual wastewater bill based on 175 cu.m.



Table 10-2
Municipality of Lakeshore
Average Annual Wastewater Bill Based on 175 cu.m. of Annual Flows

Description	2022	2023	2024	2025	2026	2027	2028
Monthly Base Rate	\$21.32	\$23.24	\$25.33	\$27.61	\$30.09	\$32.80	\$35.76
Annual Base Rate Bill	\$255.84	\$278.87	\$303.96	\$331.32	\$361.14	\$393.64	\$429.07
Volume Rate	\$1.68	\$1.83	\$1.99	\$2.17	\$2.37	\$2.58	\$2.81
Volume	175	175	175	175	175	175	175
Annual Volume Bill	\$294.00	\$320.25	\$348.25	\$379.75	\$414.75	\$451.50	\$491.75
Total Annual Bill	\$549.84	\$599.12	\$652.21	\$711.07	\$775.89	\$845.14	\$920.82
% Increase - Base Rate		9%	9%	9%	9%	9%	9%
% Increase - Volume Rate		9%	9%	9%	9%	9%	9%
% Increase - Total Annual Bill (rounded)		9%	9%	9%	9%	9%	9%

10.3 Forecast of Combined Water and Wastewater Impact for the Average Customer

Based on the foregoing information, the combined impact of the water and wastewater base charge and volume rates equal an increase of approximately 6.5% to 6.9% annually from 2023 to 2028. Table 10-3 presents the forecast combined annual bill for customers based on 175 cu.m. of volume.

Table 10-3
Municipality of Lakeshore
Average Annual Water and Wastewater Bill Based on 175 cu.m. of Volume

Description	2022	2023	2024	2025	2026	2027	2028
Water							
Base Monthly Charge	\$20.85	\$21.68	\$22.55	\$23.45	\$24.39	\$25.37	\$26.38
Volume Rate	\$1.56	\$1.62	\$1.68	\$1.75	\$1.82	\$1.89	\$1.97
Annual Base Charge	\$250.20	\$260.21	\$270.62	\$281.44	\$292.70	\$304.41	\$316.58
Annual Volume Charge	\$273.00	\$283.50	\$294.00	\$306.25	\$318.50	\$330.75	\$344.75
Total Water Bill	\$523.20	\$543.71	\$564.62	\$587.69	\$611.20	\$635.16	\$661.33
Wastewater							
Base Monthly Charge	\$21.32	\$23.24	\$25.33	\$27.61	\$30.09	\$32.80	\$35.76
Volume Rate	\$1.68	\$1.83	\$1.99	\$2.17	\$2.37	\$2.58	\$2.81
Annual Base Charge	\$255.84	\$278.87	\$303.96	\$331.32	\$361.14	\$393.64	\$429.07
Annual Volume Charge	\$294.00	\$320.25	\$348.25	\$379.75	\$414.75	\$451.50	\$491.75
Total Wastewater Bill	\$549.84	\$599.12	\$652.21	\$711.07	\$775.89	\$845.14	\$920.82
Total Water and Wastewater Bill	\$1,073.04	\$1,142.82	\$1,216.83	\$1,298.76	\$1,387.09	\$1,480.30	\$1,582.15
Annual % Increase (rounded)		6.5%	6.5%	6.7%	6.8%	6.7%	6.9%

11. Recommendations

As presented within this report, capital and operating expenditures have been identified and forecast to 2028 for water and wastewater services.



Based upon the information provided in Sections 1 to 10, the following recommendations are presented for consideration by Municipal Council:

1. That Council provide for the recovery of all water and wastewater costs through full cost recovery rates.
2. That Council consider the Capital Plan for water and wastewater as provided in Tables 4-1 and 4-2 and the associated Capital Financing Plans as set out in Tables 6-1 and 6-2.
3. That Council consider the base charges provided in Tables 9-1 for water and Tables 9-2 for wastewater.
4. That Council consider the volume rates for water and wastewater as provided in Tables 10-1 and 10-2 respectively.



Appendix A

Detailed Water Rate Calculation



Table A-1
Municipality of Lakeshore
Capital Budget Forecast (Uninflated \$)

Description	Total	Forecast						
		2022	2023	2024	2025	2026	2027	2028
<u>Capital Expenditures</u>								
Comber Side Road Watermain Replacement Preliminary Design. (Design & Engineering)	612,177	612,177						
Filter Study Performance at John George WTP	72,000	72,000						
PLC (pro logic controller) Replacement at John George WTP	250,000	50,000	50,000	50,000	50,000	50,000		
Replacement of Unit # 616 - 2012 Ford F150 (Water Treatment)	50,000	50,000						
Replacement of Unit # 617 - 2012 GMC Savana Cargo (Water Distribution)	50,000	50,000						
Anchor Street Watermain Replacement (120m - 100mm CI)	62,000		62,000					
Muskie Lane Watermain Replacement (120m - 100mm CI)	62,000		62,000					
Machinery Replacements	4,601,000		1,815,000	11,000	391,000	94,000	6,000	2,284,000
Deerbrook Drive/Ruston Drive with River Crossing (680m -150mm CI)	371,000		371,000					
Construct new 100- or 150-mm-diameter watermain looping interconnection along Rochester Townline from Auction Side Road northerly across Kings Highway 401	487,000		487,000					
System Improvement - Construct new 200 & 300-mm-diameter trunk watermain along 11th Street from Broadway Street to St. Louis Street	541,000		541,000					
System Improvement- Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) across Kings Highway 401	541,000		541,000					
System Improvement - Construct new 100- or 150-mm-diameter . watermain looping interconnection along Lakeshore Road 305 across Kings Highway 401	442,000		442,000					
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) from Middle Road (County Road 46) southerly plus isolation valve facility on Middle Road (County Road 46) 650 m west of Gracie Sideroad (County Road 37)	442,000		442,000					
System Improvement - Construct new 300-mm-diameter trunk watermain along Comber Sideroad (County Road 35) from Tecumseh Road (County Road 2) to existing 200 mm dia. trunk watermain immediately south of the Canadian National Railway	221,000		221,000					
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) from County Road 8 northerly	366,000			366,000				
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) from Lakeshore Road 309 northerly	366,000			366,000				
Water Meter	1,864,000			347,000	359,000	372,000	386,000	400,000
Cast Iron Replacement- East Pike Creek Rd Watermain Replacement	517,000				517,000			



Table A-1 (Cont'd)

Description	Total	Forecast						
		2022	2023	2024	2025	2026	2027	2028
Capital Expenditures								
System Improvement - Construct new 100- or 150 -mm-diameter watermain looping interconnection along South Middle Road from Rochester Townline easterly	574,000				574,000			
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Lakeshore Road 311 from Kings Highway 77 westerly	546,000				546,000			
Construct new 400-mm-diameter trunk watermain along County Road 22 from West Puce River Road to Wallace Line Road	1,436,000				1,436,000			
Comber Side Road Watermain Replacement Preliminary Design. (Construction)	4,928,022				4,928,022			
System Improvement - Construct new 100-or 150-mm-diameter watermain looping interconnection along South Middle Road from Lakeshore Road 309 easterly	557,000					557,000		
Cast Iron Replacement- Government Line from Comber to Haycroft Stations	2,390,000						2,390,000	
Cast Iron Replacement- Lakeshore Park Watermain Replacement	1,158,000							1,158,000
Rate Study Update	5,000	5,000						
	-							
Growth Related:	-							
County Road 22 Watermain Replacement	325,683	325,683						
Construct new 500 -mm-diameter. trunk watermain along Little Baseline Road from existing 500 -mm-diameter trunk watermain west of Patillo Road to existing 400 -mm- diameter watermain at Stonebrook Road	1,102,826		1,102,826					
Construct new 600 -mm-diameter trunk watermain along West Puce River Road from County Road 22 southerly to existing 600 mm dia. trunk watermain	828,000		828,000					
Construct new 400 -mm-diameter trunk watermain along Renaud Line Road from County Road 22 to Caille Avenue	594,400		594,400					
Construct new 400mm along Wallace Line Cty Rd 22 to Wallace Woods	676,000			676,000				
Construct a new 3,200-m3 elevated water tower located in the Community of Stoney Point in the general area of Comber Sideroad (County Road 35) and Tecumseh Road (County Road 2)	5,631,000			5,631,000				
Little Baseline-new water tower to replace existing MD	7,036,200				7,036,200			
Thru Wallace Woods- W Puce to Patillo - new 600 mm main	2,361,100				2,361,100			
Construct new 300-mm-diameter trunk watermain along Comber Sideroad (County Road 35) from St. Clair Road to existing 300 mm dia. trunk watermain immediately north of Tecumseh Road (County Road 2)	762,300				762,300			
Little Baseline-W Pike west to existing 150mm-new 400mm line	877,700					877,700		
	-							
Total Capital Expenditures	44,137,408	1,164,860	7,559,226	7,447,000	19,391,622	1,950,700	2,782,000	3,842,000



Table A-2
Municipality of Lakeshore
Capital Budget Forecast (Inflated \$)

Description	Total	Forecast						
		2022	2023	2024	2025	2026	2027	2028
Capital Expenditures								
Comber Side Road Watermain Replacement Preliminary Design. (Design & Engineering)	612,177	612,177	-	-	-	-	-	-
Filter Study Performance at John George WTP	72,000	72,000	-	-	-	-	-	-
PLC (pro logic controller) Replacement at John George WTP	260,000	50,000	51,000	52,000	53,000	54,000	-	-
Replacement of Unit # 616 - 2012 Ford F150 (Water Treatment)	50,000	50,000	-	-	-	-	-	-
Replacement of Unit # 617 - 2012 GMC Savana Cargo (Water Distribution)	50,000	50,000	-	-	-	-	-	-
Anchor Street Watermain Replacement (120m - 100mm CI)	63,000	-	63,000	-	-	-	-	-
Muskie Lane Watermain Replacement (120m - 100mm CI)	63,000	-	63,000	-	-	-	-	-
Machinery Replacements	4,958,000	-	1,851,000	11,000	415,000	102,000	7,000	2,572,000
Deerbrook Drive/Ruston Drive with River Crossing (680m - 150mm CI)	378,000	-	378,000	-	-	-	-	-
Construct new 100- or 150-mm-diameter watermain looping interconnection along Rochester Townline from Auction Side Road northerly across Kings Highway 401	497,000	-	497,000	-	-	-	-	-
System Improvement - Construct new 200 & 300-mm-diameter trunk watermain along 11th Street from Broadway Street to St. Louis Street	552,000	-	552,000	-	-	-	-	-
System Improvement- Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) across Kings Highway 401	552,000	-	552,000	-	-	-	-	-
System Improvement - Construct new 100- or 150-mm-diameter . watermain looping interconnection along Lakeshore Road 305 across Kings Highway 401	451,000	-	451,000	-	-	-	-	-
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) from Middle Road (County Road 46) southerly plus isolation valve facility on Middle Road (County Road 46) 650 m west of Gracie Sideroad (County Road 37)	451,000	-	451,000	-	-	-	-	-
System Improvement - Construct new 300-mm-diameter trunk watermain along Comber Sideroad (County Road 35) from Tecumseh Road (County Road 2) to existing 200 mm dia. trunk watermain immediately south of the Canadian National Railway	225,000	-	225,000	-	-	-	-	-



Table A-2 (Cont'd)

Description	Total	Forecast						
		2022	2023	2024	2025	2026	2027	2028
Capital Expenditures								
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) from County Road 8 northerly	381,000	-	-	381,000	-	-	-	-
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Gracie Sideroad (County Road 37) from Lakeshore Road 309 northerly	381,000	-	-	381,000	-	-	-	-
Water Meter	2,021,000	-	-	361,000	381,000	403,000	426,000	450,000
Cast Iron Replacement- East Pike Creek Rd Watermain Replacement	549,000	-	-	-	549,000	-	-	-
Cast Iron Replacement-- Hawthorn Drive Watermain Looping	457,000	-	-	-	457,000	-	-	-
System Improvement - Construct new 100- or 150 -mm-diameter watermain looping interconnection along South Middle Road from Rochester Townline easterly	609,000	-	-	-	609,000	-	-	-
System Improvement - Construct new 100- or 150-mm-diameter watermain looping interconnection along Lakeshore Road 311 from Kings Highway 77 westerly	579,000	-	-	-	579,000	-	-	-
Construct new 400-mm-diameter trunk watermain along County Road 22 from West Puce River Road to Wallace Line Road	1,524,000	-	-	-	1,524,000	-	-	-
Comber Side Road Watermain Replacement Preliminary Design. (Construction)	5,230,000	-	-	-	5,230,000	-	-	-
System Improvement - Construct new 100-or 150-mm-diameter watermain looping interconnection along South Middle Road from Lakeshore Road 309 easterly	603,000	-	-	-	-	603,000	-	-
Cast Iron Replacement- Government Line from Comber to Haycroft Stations	2,639,000	-	-	-	-	-	2,639,000	-
Cast Iron Replacement- Lakeshore Park Watermain Replacement	1,304,000	-	-	-	-	-	-	1,304,000
Rate Study Update	5,000	5,000	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-
Growth Related:	-	-	-	-	-	-	-	-
County Road 22 Watermain Replacement	325,683	325,683	-	-	-	-	-	-
Construct new 500 -mm-diameter. trunk watermain along Little Baseline Road from existing 500 -mm-diameter trunk watermain west of Patillo Road to existing 400 -mm- diameter watermain at Stonebrook Road	1,125,000	-	1,125,000	-	-	-	-	-
Construct new 600 -mm-diameter trunk watermain along West Puce River Road from County Road 22 southerly to existing 600 mm dia. trunk watermain	845,000	-	845,000	-	-	-	-	-



Table A-2 (Cont'd)

Description	Total	Forecast						
		2022	2023	2024	2025	2026	2027	2028
Capital Expenditures								
Construct new 400 -mm-diameter trunk watermain along Renaud Line Road from County Road 22 to Caille Avenue	606,000	-	606,000	-	-	-	-	-
Construct new 400mm along Wallace Line Cty Rd 22 to Wallace Woods	703,000	-	-	703,000	-	-	-	-
Construct a new 3,200-m3 elevated water tower located in the Community of Stoney Point in the general area of Comber Sideroad (County Road 35) and Tecumseh Road (County Road 2)	5,858,000	-	-	5,858,000	-	-	-	-
Little Baseline-new water tower to replace existing MD	7,467,000	-	-	-	7,467,000	-	-	-
Thru Wallace Woods- W Puce to Patillo - new 600 mm main	2,506,000	-	-	-	2,506,000	-	-	-
Construct new 300-mm-diameter trunk watermain along Comber Sideroad (County Road 35) from St. Clair Road to existing 300 mm dia. trunk watermain immediately north of Tecumseh Road (County Road 2)	809,000	-	-	-	809,000	-	-	-
Little Baseline-W Pike west to existing 150mm-new 400mm line	950,000	-	-	-	-	950,000	-	-
Total Capital Expenditures	46,710,860	1,164,860	7,710,000	7,747,000	20,579,000	2,112,000	3,072,000	4,326,000
Capital Financing								
Provincial/Federal Grants	-	-	-	-	-	-	-	-
Development Charges Reserve Fund	9,437,515	325,683	1,479,612	2,177,084	4,902,368	552,769	-	-
Non-Growth Related Debenture Requirements	15,000,000	-	2,000,000	-	10,000,000	-	-	3,000,000
Growth Related Debenture Requirements	-	-	-	-	-	-	-	-
Operating Contributions	-	-	-	-	-	-	-	-
Water Contingency Reserve	-	-	-	-	-	-	-	-
Water General Reserve Fund	22,273,345	839,177	4,230,388	5,569,916	5,676,632	1,559,231	3,072,000	1,326,000
Water Plant Filter Reserve Fund	-	-	-	-	-	-	-	-
Water Working Fund Reserve	-	-	-	-	-	-	-	-
Total Capital Financing	46,710,860	1,164,860	7,710,000	7,747,000	20,579,000	2,112,000	3,072,000	4,326,000



Table A-3
Municipality of Lakeshore
Schedule of Non-Growth-Related Debenture Repayments (Inflated \$)

Debenture Year	Principal (Inflated)	Forecast						
		2022	2023	2024	2025	2026	2027	2028
2019	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-
2023	2,000,000			246,582	246,582	246,582	246,582	246,582
2024	-				-		-	-
2025	10,000,000					1,232,909	1,232,909	1,232,909
2026	-						-	-
2027	-							-
2028	3,000,000							
Total Annual Debt Charges	15,000,000	-	-	246,582	246,582	1,479,491	1,479,491	1,479,491

Table A-4
Municipality of Lakeshore
Schedule of Growth-Related Debenture Repayments

Debenture Year	Principal (Inflated)	Forecast						
		2022	2023	2024	2025	2026	2027	2028
2019	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-
2023	-			-	-	-	-	-
2024	-				-	-	-	-
2025	-					-	-	-
2026	-						-	-
2027	-							-
2028	-							
Total Annual Debt Charges	-	-	-	-	-	-	-	-



Table A-5
Municipality of Lakeshore
Water Working Fund Reserve Continuity (Inflated \$)

Description	2022	2023	2024	2025	2026	2027	2028
Opening Balance	1,061,541	1,061,541	1,061,541	1,061,541	1,061,541	1,061,541	1,061,541
Transfer from Operating	-	-	-	-	-	-	-
Transfer to Capital							
Transfer to Operating	-	-	-	-	-	-	-
Closing Balance	1,061,541	1,061,541	1,061,541	1,061,541	1,061,541	1,061,541	1,061,541

Table A-6
Municipality of Lakeshore
Water General Reserve Continuity (Inflated \$)

Description	2022	2023	2024	2025	2026	2027	2028
Opening Balance	10,592,714	13,609,136	13,326,849	10,091,331	4,029,127	5,532,401	6,291,691
Transfer from Operating	3,588,752	3,686,791	3,796,529	4,175,426	3,324,027	3,707,923	4,138,448
Transfer to Capital	839,177	4,230,388	5,569,916	5,676,632	1,559,231	3,072,000	1,326,000
Transfer to Operating (to DC Reserve Fund)			1,660,000	4,640,000	370,000		
Transfer to Operating	-	-	-	-	-	-	-
Closing Balance	13,342,290	13,065,538	9,893,462	3,950,125	5,423,923	6,168,325	9,104,140
Interest	266,846	261,311	197,869	79,002	108,478	123,366	182,083

Table A-7
Municipality of Lakeshore
Water Development Charges Reserve Fund Continuity (Inflated \$)

Description	2022	2023	2024	2025	2026	2027	2028
Opening Balance	1,680,249	1,558,051	288,098	3,923	3,860	6,672	551,616
Development Charge Proceeds	1,406,540	1,437,614	1,466,436	1,495,833	1,419,427	1,442,000	1,470,881
Transfer from Operating (from General Reserve)	-	-	1,660,000	4,640,000	370,000	-	-
Transfer to Capital	325,683	1,479,612	2,177,084	4,902,368	552,769	-	-
Transfer to Operating	1,233,604	1,233,604	1,233,604	1,233,604	1,233,978	907,872	907,872
Closing Balance	1,527,501	282,449	3,846	3,784	6,541	540,800	1,114,624
Interest	30,550	5,649	77	76	131	10,816	22,292



Table A-8
Municipality of Lakeshore
Water Contingency Reserve Continuity (Inflated \$)

Description	2022	2023	2024	2025	2026	2027	2028
Opening Balance	319,172	319,172	319,172	319,172	319,172	319,172	319,172
Transfer from Operating	-	-	-	-	-	-	-
Transfer to Capital	-	-	-	-	-	-	-
Transfer to Operating	-	-	-	-	-	-	-
Closing Balance	319,172	319,172	319,172	319,172	319,172	319,172	319,172

Table A-9
Municipality of Lakeshore
Water Plant Filter Reserve Fund Continuity (Inflated \$)

Description	2022	2023	2024	2025	2026	2027	2028
Opening Balance	1,092,162	1,219,065	1,345,447	1,474,355	1,605,843	1,739,959	1,876,759
Transfer from Operating	103,000	100,000	100,000	100,000	100,000	100,000	100,000
Transfer to Capital	-	-	-	-	-	-	-
Transfer to Operating	-	-	-	-	-	-	-
Closing Balance	1,195,162	1,319,065	1,445,447	1,574,355	1,705,843	1,839,959	1,976,759
Interest	23,903	26,381	28,909	31,487	34,117	36,799	39,535



Table A-10
Municipality of Lakeshore
Operating Budget Forecast (Inflated \$)

Description	Forecast						
	2022	2023	2024	2025	2026	2027	2028
Expenditures							
Operating Costs							
Wages and Benefits	3,084,126	3,255,800	3,320,900	3,387,300	3,455,000	3,524,100	3,594,600
Office Supplies	6,000	6,100	6,200	6,300	6,400	6,500	6,600
Advertising & Promotion	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Clothing Allowance	13,075	13,300	13,600	13,900	14,200	14,500	14,800
Meeting Expenses	500	500	500	500	500	500	500
Courier & Postage	75,000	76,500	78,000	79,600	81,200	82,800	84,500
Travel Expense	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Training & Conferences	39,500	40,300	41,100	41,900	42,700	43,600	44,500
Memberships & Subscriptions	8,900	9,100	9,300	9,500	9,700	9,900	10,100
Telecommunications	41,200	42,000	42,800	43,700	44,600	45,500	46,400
Computer Expense	31,378	32,000	32,600	33,300	34,000	34,700	35,400
Administration Fee	445,700	454,600	463,700	473,000	482,500	492,200	502,000
Bank Charges	3,500	3,600	3,700	3,800	3,900	4,000	4,100
Bad Debts & Writeoffs	500	500	500	500	500	500	500
Pagers & Radio Airtime	7,000	7,100	7,200	7,300	7,400	7,500	7,700
Service Fees	8,000	8,200	8,400	8,600	8,800	9,000	9,200
Consulting Services	35,200	35,900	36,600	37,300	38,000	38,800	39,600
Legal Services	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Grounds Maintenance	12,000	12,200	12,400	12,600	12,900	13,200	13,500
Winter Control Services	15,000	15,300	15,600	15,900	16,200	16,500	16,800
Locate Services	10,000	10,200	10,400	10,600	10,800	11,000	11,200
Water Meter Reading	35,000	35,000	35,000	35,000	35,000	35,000	35,000
Health & Safety Supplies	13,000	13,300	13,600	13,900	14,200	14,500	14,800
Materials & Supplies	121,900	124,300	126,800	129,300	131,900	134,500	137,200
Water Purchases - Tecumseh	26,000	26,800	27,600	28,400	29,300	30,200	31,100
Water Purchases - UWSS	312,000	321,400	331,000	340,900	351,100	361,600	372,400
Facility Maintenance	23,000	23,500	24,000	24,500	25,000	25,500	26,000
Janitorial Services	11,800	12,000	12,200	12,400	12,600	12,900	13,200
Property Taxes	90,000	91,800	93,600	95,500	97,400	99,300	101,300
Security Services	3,200	3,300	3,400	3,500	3,600	3,700	3,800



Table A-10 (Cont'd)

Description	Forecast						
	2022	2023	2024	2025	2026	2027	2028
Expenditures							
Fuel & Oil	61,000	65,900	71,200	76,900	83,100	89,700	96,900
Equipment Rental	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Insurance Premiums	181,788	185,400	189,100	192,900	196,800	200,700	204,700
Water Purification Chemicals	212,500	218,900	225,500	232,300	239,300	246,500	253,900
Water Sample Testing	53,000	54,100	55,200	56,300	57,400	58,500	59,700
Water Meters	10,000	10,200	10,400	10,600	10,800	11,000	11,200
Installations	37,500	38,300	39,100	39,900	40,700	41,500	42,300
System Repairs & Maintenance	477,000	486,500	496,200	506,100	516,200	526,500	537,000
Vehicle Repairs & Maintenance	35,500	36,200	36,900	37,600	38,400	39,200	40,000
Electricity	385,900	416,800	450,100	486,100	525,000	567,000	612,400
Expense Recovery	(390,000)	(397,800)	(405,800)	(413,900)	(422,200)	(430,600)	(439,200)
Sub Total Operating	5,933,667	6,193,900	6,351,400	6,514,700	6,684,100	6,859,600	7,041,900
Capital-Related							
Existing Debt (Principal) - Growth Related	993,782	1,023,566	1,054,326	1,086,053	1,119,288	825,036	851,789
Existing Debt (Interest) - Growth Related	239,823	210,038	179,278	147,551	114,690	82,836	56,084
New Growth Related Debt (Principal)	-	-	-	-	-	-	-
New Growth Related Debt (Interest)	-	-	-	-	-	-	-
Existing Debt (Principal) - Non-Growth Related	112,421	115,922	95,569	98,638	101,815	105,106	108,514
Existing Debt (Interest) - Non-Growth Related	26,962	23,460	20,090	17,021	13,844	10,553	7,145
New Non-Growth Related Debt (Principal)	-	-	166,582	173,245	1,013,084	1,053,608	1,095,752
New Non-Growth Related Debt (Interest)	-	-	80,000	73,337	466,407	425,884	383,739
Transfer to Capital	-	-	-	-	-	-	-
Transfer to Water Contingency Reserve	-	-	-	-	-	-	-
Transfer to Water General Reserve Fund	3,588,752	3,686,791	3,796,529	4,175,426	3,324,027	3,707,923	4,138,448
Transfer to DC Reserve Fund (from General Reserve)	-	-	1,660,000	4,640,000	370,000	-	-
Transfer to Water Plant Filter Reserve Fund	103,000	100,000	100,000	100,000	100,000	100,000	100,000
Transfer to Water Working Fund Reserve	-	-	-	-	-	-	-
Sub Total Capital Related	5,064,739	5,159,777	7,152,374	10,511,271	6,623,155	6,310,946	6,741,471
Total Expenditures	10,998,406	11,353,677	13,503,774	17,025,971	13,307,255	13,170,546	13,783,371



Table A-10 (Cont'd)

Description	Forecast						
	2022	2023	2024	2025	2026	2027	2028
Revenues							
Base Charge	3,684,445	3,884,125	4,094,154	4,314,772	4,542,975	4,778,879	5,026,069
Other Revenue							
Buy in fees	63,000	63,000	63,000	63,000	63,000	63,000	63,000
NSF Charges	1,750	1,800	1,800	1,800	1,800	1,800	1,800
New Account Setup Fees	23,700	23,700	23,700	23,700	23,700	23,700	23,700
Disconnect Fees	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Shutoff Fees	4,500	4,500	4,500	4,500	4,500	4,500	4,500
Miscellaneous	41,000	41,000	41,000	41,000	41,000	41,000	41,000
Interest Revenue	95,000	95,000	95,000	95,000	95,000	95,000	95,000
Watermain Revenue	23,723	-	-	-	-	-	-
Meter Sales	95,000	96,900	98,800	100,800	102,800	104,900	107,000
Transfer from Self-Insurance Reserve	96,288						
Contributions from Development Charges Reserve Fund	1,233,604	1,233,604	1,233,604	1,233,604	1,233,978	907,872	907,872
Contributions from General Reserve (interim loan to DC Reserve Fund)	-	-	1,660,000	4,640,000	370,000	-	-
Contributions from Reserves / Reserve Funds	-	-	-	-	-	-	-
Total Operating Revenue	5,365,010	5,446,629	7,318,559	10,521,176	6,481,753	6,023,651	6,272,941
Water Billing Recovery - Total	5,633,396	5,907,048	6,185,216	6,504,796	6,825,502	7,146,895	7,510,430

Table A-11
Municipality of Lakeshore
Water Rate Forecast

Description	2022	2023	2024	2025	2026	2027	2028
Total Water Billing Recovery	5,633,396	5,907,048	6,185,216	6,504,796	6,825,502	7,146,895	7,510,430
Total Volume (m ³)	3,611,151	3,646,326	3,681,676	3,717,026	3,750,276	3,781,426	3,812,401
Constant Rate	1.56	1.62	1.68	1.75	1.82	1.89	1.97
Annual Percentage Change		4%	4%	4%	4%	4%	4%



Appendix B

Detailed Wastewater Rate Calculations



Table B-1
Municipality of Lakeshore
Capital Budget Forecast (Uninflated \$)

Description	Total	Forecast						
		2022	2023	2024	2025	2026	2027	2028
Non-Growth-Related								
OCWA Capital Systems Repairs & Maintenance	9,980,000	2,820,000	1,120,000	1,630,000	3,250,000	1,160,000		
Rate Study Update	5,000	5,000						
Growth Related:								
Expand the Denis St. Pierre WPCP	54,000,000	54,000,000						
Belle River/Maidstone Conveyance (Puce to Manning)	16,000,000						16,000,000	
Total Capital Expenditures	79,985,000	56,825,000	1,120,000	1,630,000	3,250,000	1,160,000	16,000,000	-

Table B-2
Municipality of Lakeshore
Capital Budget Forecast (Inflated \$)

Description	Total	Forecast						
		2022	2023	2024	2025	2026	2027	2028
Capital Expenditures								
Non-Growth-Related								
OCWA Capital Systems Repairs & Maintenance	10,363,000	2,820,000	1,142,000	1,696,000	3,449,000	1,256,000	-	-
Rate Study Update	5,000	5,000	-	-	-	-	-	-
Growth Related:								
Expand the Denis St. Pierre WPCP	54,000,000	54,000,000	-	-	-	-	-	-
Belle River/Maidstone Conveyance (Puce to)	17,665,000	-	-	-	-	-	17,665,000	-
	-	-	-	-	-	-	-	-
Total Capital Expenditures	82,033,000	56,825,000	1,142,000	1,696,000	3,449,000	1,256,000	17,665,000	-
Capital Financing								
Provincial/Federal Grants	-							
Development Charges Reserve Fund	402,573	402,573	-	-	-	-	-	-
Non-Growth Related Debenture Requirements	25,545,928	11,141,000	1,142,000	-	3,449,000	-	9,813,928	-
Growth Related Debenture Requirements	53,132,499	45,281,427	-	-	-	-	7,851,072	-
Operating Contributions	-	-	-	-	-	-	-	-
Wastewater Capital Reserve	-	-	-	-	-	-	-	-
Wastewater General Reserve	2,952,000	-	-	1,696,000	-	1,256,000	-	-
Total Capital Financing	82,033,000	56,825,000	1,142,000	1,696,000	3,449,000	1,256,000	17,665,000	-



Table B-3
Municipality of Lakeshore
Schedule of Non-Growth-Related Debenture Repayments (Inflated \$)

Debenture Year	Principal (Inflated)	Forecast						
		2022	2023	2024	2025	2026	2027	2028
2019	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-
2022	11,141,000		1,373,584	1,373,584	1,373,584	1,373,584	1,373,584	1,373,584
2023	1,142,000			140,798	140,798	140,798	140,798	140,798
2024	-				-	-	-	-
2025	3,449,000					425,230	425,230	425,230
2026	-						-	-
2027	9,813,928							1,209,968
2028	-							
Total Annual Debt Charges	25,545,928	-	1,373,584	1,514,383	1,514,383	1,939,613	1,939,613	3,149,582

Table B-4
Municipality of Lakeshore
Schedule of Growth-Related Debenture Repayments (Inflated \$)

Debenture Year	Principal (Inflated)	Forecast						
		2022	2023	2024	2025	2026	2027	2028
2019	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-
2022	45,281,427		5,582,790	5,582,790	5,582,790	5,582,790	5,582,790	5,582,790
2023	-			-	-	-	-	-
2024	-				-	-	-	-
2025	-					-	-	-
2026	-						-	-
2027	7,851,072							967,966
2028	-							
Total Annual Debt Charges	53,132,499	-	5,582,790	5,582,790	5,582,790	5,582,790	5,582,790	6,550,756



Table B-5
Municipality of Lakeshore
Wastewater General Reserve Fund Continuity (Inflated \$)

Description	2022	2023	2024	2025	2026	2027	2028
Opening Balance	(1,761,601)	825,712	1,376,378	647,136	2,316,990	2,428,556	3,813,035
Transfer from Operating	2,668,973	1,995,113	2,522,567	3,138,806	3,839,561	4,599,327	5,458,721
Transfer to Capital			1,696,000		1,256,000		
Transfer to Operating (to DC Reserve Fund)					580,000	1,350,000	2,220,000
Transfer to Operating	97,851	1,471,435	1,568,498	1,514,383	1,939,613	1,939,613	3,149,582
Closing Balance	809,522	1,349,390	634,447	2,271,559	2,380,938	3,738,270	3,902,175
Interest	16,190	26,988	12,689	45,431	47,619	74,765	78,043

Table B-6
Municipality of Lakeshore
Wastewater Development Charges Reserve Fund Continuity (Inflated \$)

Description	2022	2023	2024	2025	2026	2027	2028
Opening Balance	910,167	4,589,927	3,229,889	2,002,285	850,006	5,570	6,412
Development Charge Proceeds	4,697,473	4,801,026	4,897,133	4,995,053	4,739,453	4,814,714	4,911,037
Transfer From Operating (from General Reserve)	-	-	-	-	580,000	1,350,000	2,220,000
Transfer to Capital	402,573	-	-	-	-	-	-
Transfer to Operating	705,139	6,224,395	6,163,998	6,163,998	6,163,998	6,163,998	7,131,964
Closing Balance	4,499,928	3,166,558	1,963,025	833,340	5,461	6,287	5,485
Interest	89,999	63,331	39,260	16,667	109	126	110

Table B-7
Municipality of Lakeshore
Wastewater Capital Reserve Continuity (Inflated \$)

Description	2022	2023	2024	2025	2026	2027	2028
Opening Balance	1,279,262	1,304,847	1,330,944	1,357,563	1,384,714	1,412,408	1,440,656
Transfer from Operating	-	-	-	-	-	-	-
Transfer to Capital	-	-	-	-	-	-	-
Transfer to Operating	-	-	-	-	-	-	-
Closing Balance	1,279,262	1,304,847	1,330,944	1,357,563	1,384,714	1,412,408	1,440,656
Interest	25,585	26,097	26,619	27,151	27,694	28,248	28,813



Table B-8
Municipality of Lakeshore
Operating Budget Forecast (Inflated \$)

Description	Forecast						
	2022	2023	2024	2025	2026	2027	2028
Expenditures							
Operating Costs							
Wages and Benefits	74,573	76,100	77,600	79,200	80,800	82,400	84,000
Advertising	500	500	500	500	500	500	500
Telephone	16,650	17,000	17,300	17,600	18,000	18,400	18,800
Utilities	893,900	965,400	1,042,600	1,126,000	1,216,100	1,313,400	1,418,500
Utility Locates	97,000	98,900	100,900	102,900	105,000	107,100	109,200
Property taxes	80,000	81,600	83,200	84,900	86,600	88,300	90,100
OCWA operating contract	2,057,283	3,349,400	3,541,500	3,739,900	3,944,800	4,156,400	4,374,900
System repairs & maintenance	324,800	331,300	337,900	344,700	351,600	358,600	365,800
Vehicle maintenance	8,000	8,200	8,400	8,600	8,800	9,000	9,200
Grass cutting	23,000	23,500	24,000	24,500	25,000	25,500	26,000
Administration	306,000	312,100	318,300	324,700	331,200	337,800	344,600
Administration - billing services	156,000	159,100	162,300	165,500	168,800	172,200	175,600
Consulting	125,000	127,500	130,100	132,700	135,400	138,100	140,900
Insurance	67,561	68,900	70,300	71,700	73,100	74,600	76,100
Snow removal	15,000	15,300	15,600	15,900	16,200	16,500	16,800
Refund for leaks	5,000	5,100	5,200	5,300	5,400	5,500	5,600
Infill & Infiltration	450,000	459,000	468,200	477,600	487,200	496,900	506,800
Sub Total Operating	4,700,267	6,098,900	6,403,900	6,722,200	7,054,500	7,401,200	7,763,400
Capital-Related							
Existing Debt (Principal) - Growth Related	508,555	465,804	425,461	444,169	463,701	484,091	505,378
Existing Debt (Interest) - Growth Related	196,585	175,800	155,747	137,039	117,507	97,117	75,830
New Growth Related Debt (Principal)	-	3,771,533	3,922,394	4,079,290	4,242,461	4,412,160	5,242,570
New Growth Related Debt (Interest)	-	1,811,257	1,660,396	1,503,500	1,340,328	1,170,630	1,308,186
Existing Debt (Principal) - Non-Growth Related	90,387	93,764	53,011	-	-	-	-
Existing Debt (Interest) - Non-Growth Related	7,464	4,086	1,104	-	-	-	-
New Non-Growth Related Debt (Principal)	-	927,944	1,060,180	1,102,588	1,433,962	1,491,320	2,368,384
New Non-Growth Related Debt (Interest)	-	445,640	454,202	411,795	505,651	448,293	781,197
Transfer to Capital	-	-	-	-	-	-	-
Transfer to DC Reserve Fund (from General Reserve)	-	-	-	-	580,000	1,350,000	2,220,000
Transfer to Capital Reserve	-	-	-	-	-	-	-
Transfer to General Reserve	2,668,973	1,995,113	2,522,567	3,138,806	3,839,561	4,599,327	5,458,721
Sub Total Capital Related	3,471,963	9,690,942	10,255,063	10,817,186	12,523,172	14,052,938	17,960,267
Total Expenditures	8,172,230	15,789,842	16,658,963	17,539,386	19,577,672	21,454,138	25,723,667



Table B-8 (Cont'd)

Description	Forecast						
	2022	2023	2024	2025	2026	2027	2028
Revenues							
Base Charge	2,630,291	2,923,069	3,247,546	3,606,752	3,999,976	4,430,042	4,904,691
Other Revenue							
Frontage and connection	86,600	86,600	86,600	86,600	86,600	86,600	86,600
Collected on taxes	56,170	56,200	56,200	56,200	56,200	56,200	56,200
Miscellaneous revenue	28,985	29,600	30,200	30,800	31,400	32,000	32,600
Buy-in fee	-	-	-	-	-	-	-
Transfer from Self Insurance Reserve	37,461						
Contributions from Development Charges Reserve Fu	705,139	6,224,395	6,163,998	6,163,998	6,163,998	6,163,998	7,131,964
Contributions from General Reserve (to DC Reserve F	-	-	-	-	580,000	1,350,000	2,220,000
Contributions from Reserves / Reserve Funds	97,851	1,471,435	1,568,498	1,514,383	1,939,613	1,939,613	3,149,582
Total Operating Revenue	3,642,497	10,791,299	11,153,042	11,458,733	12,857,787	14,058,453	17,581,637
Wastewater Billing Recovery - Total	4,529,733	4,998,543	5,505,921	6,080,654	6,719,885	7,395,685	8,142,030

Table B-9
Municipality of Lakeshore
Wastewater Rate Forecast (Inflated \$)

Description	2022	2023	2024	2025	2026	2027	2028
Total Wastewater Billing Recovery	4,529,733	4,998,543	5,505,921	6,080,654	6,719,885	7,395,685	8,142,030
Total Volume (m ³)	2,696,270	2,731,445	2,766,795	2,802,145	2,835,395	2,866,545	2,897,520
Constant Rate	1.68	1.83	1.99	2.17	2.37	2.58	2.81
Annual Percentage Change		9%	9%	9%	9%	9%	9%