

**TOWNSHIP OF WEST LINCOLN  
ADMINISTRATION/FINANCE/FIRE COMMITTEE  
AGENDA**

**MEETING NO. FIVE**

**Monday, November 16, 2020, 6:30 p.m.**

**Township Administration Building**

**318 Canborough Street, Smithville, Ontario**

**\*\* NOTE TO MEMBERS OF THE PUBLIC:** Due to efforts to contain the spread of COVID-19 and to protect all individuals, the Council Chamber will not be open to the public to attend Council meetings until further notice.\*\*

**Submission of Public Comments/Virtual Attendance:** The public may submit comments for matters that are on the agenda or request to attend the virtual meeting as "Attendees" by emailing [jscime@westlincoln.ca](mailto:jscime@westlincoln.ca) by November 16, 2020 before 4:30 pm. Email comments submitted will be considered as public information and read into public record. The meeting will be recorded and available on the Township's website within 48 hours of the meeting, unless otherwise noted.

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**Pages**

**1. CHAIR - Councillor Mike Rehner**

1. Due to efforts to contain the spread of COVID-19 and to protect all individuals, the Council Chamber will not be open to the public to attend Standing Committee and Council meetings until further notice.
2. The public may submit comments for matters that are on the agenda to [jscime@westlincoln.ca](mailto:jscime@westlincoln.ca) before 4:30 pm. on the day of the meeting. Comments submitted will be considered as public information and read into public record.
3. Any member of the public that wishes to attend this meeting were required to contact the Clerk by email ([jscime@westlincoln.ca](mailto:jscime@westlincoln.ca)) or by telephone prior to 4:30 p.m. on the day of the meeting.
4. The meeting will be recorded and available on the Township's website within 48 hours of the meeting, unless noted otherwise.

**2. CHANGE IN ORDER OF ITEMS ON AGENDA**

**3. DISCLOSURE OF PECUNIARY INTEREST AND/OR CONFLICT OF INTEREST**

**4. APPOINTMENTS**

**4.1. ITEM A42-20**

Gary Scandlan, Managing Partner and Director, Municipal Finance & Byron Tan, Senior Consultant, Watson & Associates Economists Ltd.

Re: Water and Wastewater Rate Study & Water Financial Plan  
**POWERPOINT PRESENTATION**

**5. REQUEST TO ADDRESS ITEMS ON THE AGENDA**

**NOTE: Procedural By-law Section 10.13(5) – General Rules**

One (1) hour in total shall be allocated for this section of the agenda and each individual person shall only be provided with **five (5) minutes** to address their issue (some exceptions apply). A response may not be provided and the matter may be referred to staff.

Chair to inquire if there are any members of the public present who wish to address any items on the Administration/Finance/Fire Committee agenda.

**6. CONSENT AGENDA ITEMS**

**NOTE:** All items listed below are considered to be routine and non-controversial and can be approved by one resolution. There will be no separate discussion of these items unless a Council Member requests it, in which case the item will be removed from the consent resolution and considered immediately following adoption of the remaining consent agenda items.

**6.1. ITEM A43-20**  
CONSENT AGENDA ITEMS

**RECOMMENDATION:**

That the Administration/Finance/Fire Committee hereby approves the following Consent Agenda Items:

- 1. Items 1, 2, 3, 4 and 5 be and are hereby received for information; and,
- 2. Item 6 be and is hereby received and the recommendations contained therein be adopted

with the exception of Items #(s)\_\_\_\_\_

- |    |   |    |
|----|---|----|
| 1. | Joint Accessibility Advisory Committee – Minutes of August 13, 2020 | 48 |
| 2. | West Lincoln Public Library Board Minutes – September 18, 2020      | 51 |
| 3. | West Lincoln Public Library Board Minutes – October 23, 2020        | 55 |
| 4. | Information Report T-24-2020 October 2020 Budget Status Report      | 60 |
| 5. | Information Report WFLD-16-2020 Monthly Update October 2020         | 69 |
| 6. | Recommendation Report CAO-09-2020 - Christmas Break Holiday Hours   | 72 |

**7. COMMUNICATIONS**

**7.1. ITEM A44-20** 76

Fred Vrugteveen, Niagara Pallets  
Re: Request to Township to Forgive Interest on Late Payment of Fees  
for Peer Review of Site Plan Agreement

**RECOMMENDATION:**

That, that correspondence received from Fred Vrugteveen, Niagara Pallets, dated November 6, 2020, requesting that Township forgive the interest fee for late payment of fees for peer review of their Site Plan Agreement as it is felt that the Township's policy should give businesses a longer interest free period to provide time to review invoices in order to confirm the amounts and that businesses be given at least 90 or 120 days to pay invoices, be received and ...

**8. STAFF REPORTS**

**8.1. ITEM A45-20**

78

Treasurer/Director of Finance (Donna Defilippis)  
Re: Recommendation Report T-25-2020 - Water and Wastewater  
Systems Rate Study and Financial Plan

**RECOMMENDATION:**

1. That, Report T-25-2020, dated November 16, 2020 regarding the "Water & Wastewater Systems Rate Study and Financial Plan" be received; and,
2. That the Water & Wastewater Systems Rate Study and Financial Plan No. 077-301, as attached to this report, prepared by Watson and Associates Economists Ltd. be accepted, and,
3. That the Water & Wastewater Systems Rate Structure and Rates recommended in the report prepared by Watson and Associates Economists Ltd. be approved, and,
4. That the 10-year financial plan, as required by the Safe Drinking Water Act Regulation (O.Reg. 453/07) as outlined in the report attached. be approved.

**8.2. ITEM A46-20**

227

Treasurer/Director of Finance (Donna Defilippis)  
Re: Recommendation Report T-26-2020 - Asset Management - Risk  
Framework Assessment

**RECOMMENDATION:**

That, report T-26-2020, regarding Asset Management-Risk Framework Assessment, dated November 16<sup>th</sup>, 2020 be received for information.

**8.3. ITEM A47-20**

254

Clerk (Joanne Scime)  
Re: Recommendation Report C-08-2020 - Corporate Flag Policy

**RECOMMENDATION:**

1. THAT, the report RFD-C-08-2020, dated November 16, 2020,

regarding “Corporate Flag Policy”, be received; and,

2. THAT, Council approve the proposed Corporate Flag Policy and the Community Flag Raising Request form, attached as Schedule “A” and “B”; and,
3. THAT, Council delegate authority for approving or denying request for Community Flag Raising requests that have been previously approved or denied by Council within the last 5 years of the request date to the Clerk; and,
4. THAT, the Township Flag Policy adopted in 1987 and the Policy for Lowering Flag to Half Mast approved in 2004 be and are hereby repealed.

**8.4. ITEM A48-20**

265

Clerk (Joanne Scime)

Re: Recommendation Report C-09-2020 - Options relating to filling the Vacancy of the Office for One (1) Councillor Position for Ward 2

**RECOMMENDATION:**

1. That, Report No. RFD-C-09-2020, dated November 16, 2020, regarding the “Options relating to filling the Vacancy of the Office for One (1) Councillor Position for Ward 3”, be received; and,
2. That, the Clerk be given direction that the vacancy of the Office for One (1) Councillor Position for Ward 2 for the remainder of the 2018-2022 term of Council be filled through Option # \_\_\_\_\_, as detailed herein.

**9. OTHER BUSINESS**

**9.1. ITEM A49-20**

Members of Committee

Re: Verbal Updates from Members of Boards and Committees - If required

**9.2. ITEM A50-20**

Members of Council

Re: Other Business Items of an Informative Nature

**10. NEW BUSINESS**

**NOTE:** Only for items that require immediate attention/direction and must first approve a motion to introduce a new item of business. (Motion Required)

**11. CONFIDENTIAL MATTERS**

There are no confidential matters.

**12. ADJOURNMENT**

The Chair declared the meeting adjourned at the hour of [time]



# Township of West Lincoln Water and Wastewater Rate Study & Water Financial Plan

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Council Meeting  
November 16, 2020

# Areas of Discussion



- Study Purpose
- Legislation for Water and Wastewater;
- Existing and Forecasted Customers and Volumes;
- Capital Needs and Financing;
- Lifecycle Costs (Existing Infrastructure);
- Operating Expenditures;
- Rates;
- O.Reg. 453/07 Financial Plan; and
- Next Steps.

# Study Purpose



- Identify all current and future water and wastewater system capital needs;
- Identify cost recovery options for capital;
- Estimate future operating costs over the next 10 years; and
- Recommend new rates to recover the cost of the water and wastewater systems.



# Legislation for Water and Wastewater

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## Township of West Lincoln



# Legislation Overview



Since Walkerton, new legislation has been passed by the Province to enhance the provision of services. These include the following:

- Safe Drinking Water Act;
- Sustainable Water and Sewage Systems Act;
- O.Reg. 453/07 - Safe Drinking Water Act;
- Clean Water Act; and
- Water Opportunities Act.

## Further Requirements:

- Municipal Infrastructure Strategy
- Infrastructure for Jobs and Prosperity Act, 2015

# Water Opportunities Act, 2010



- The Act provides for the following elements:
  - Foster innovative water, wastewater and stormwater technologies, services and practices in the private and public sectors;
  - Prepare Water Conservation Plans to attain water conservation targets to be established by regulations; and
  - Prepare Sustainability Plans for Water, Wastewater and Stormwater Services.

# Water Opportunities Act, 2010



- On November 29, 2010, The *Water Opportunities Act*, 2010 received Royal Assent (note: only Regulation 40/11 - Water Technology Acceleration Project has been passed).
- Part 3 of the Act provides for the preparation of sustainability plans:
  - The Act extends from the water financial plans and requires a more detailed review of the water financial plan and requires a full plan for wastewater and storm water services; and
  - Regulations will provide performance targets for each service – these targets may vary based on the jurisdiction of the regulated entity or the class of entity.

# Water Opportunities Act, 2010

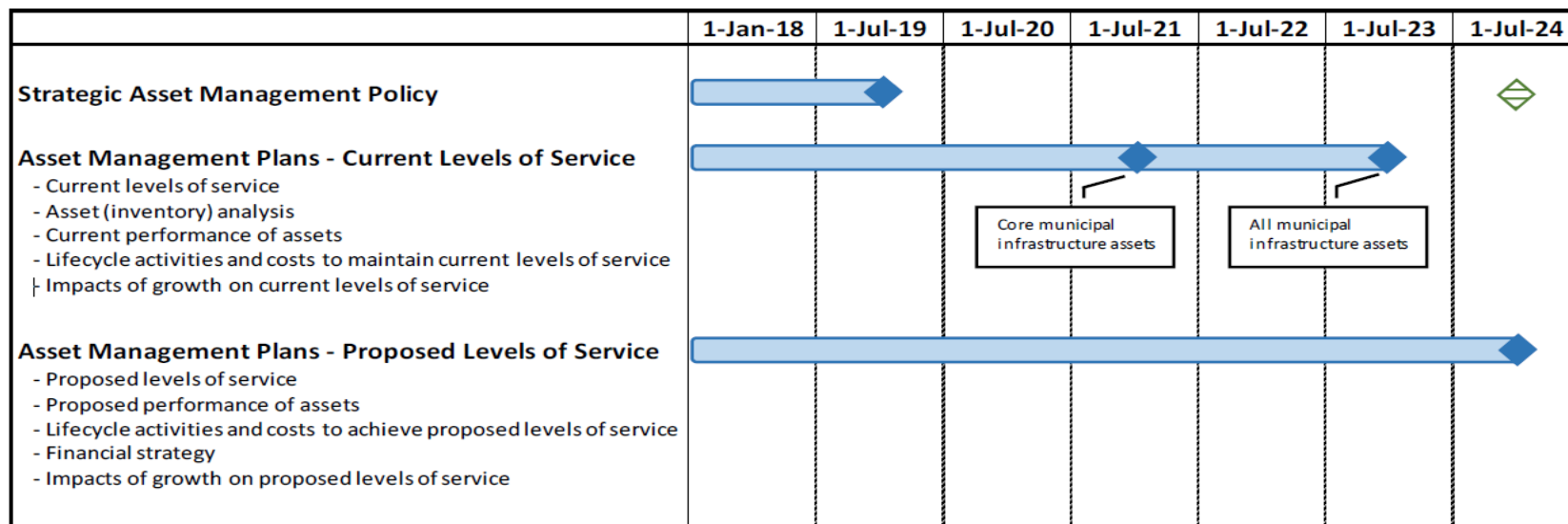


- The Financial Plan shall include:
  - An asset management plan for the physical infrastructure;
  - A financial plan;
  - For water, a conservation plan;
  - An assessment of risks that may interfere with the future delivery of the municipal service, including, if required by the regulations, the risks posed by climate change and a plan to deal with those risks; and
  - Strategies for maintaining and improving the municipal service to ensure future demand can be satisfied, consider technologies to improve the service and potential increased co-operation with other municipal service providers.
- ❖ The rate study would provide inputs required to complete the Financial Plan required for licensing approval

# Infrastructure for Jobs and Prosperity Act (IJPA), 2015



- On December 27, 2017, the Province of Ontario released Ontario Regulation 588/17 under IJPA and has 3 phases that municipalities must meet:
  - Every municipality in Ontario will have to prepare a strategic asset management policy by July 1, 2019. Municipalities will be required to review their strategic asset management policies at least every five years, and make updates as necessary;





# Infrastructure for Jobs and Prosperity Act (IJPA), 2015

- Phase 1 – Asset Management Plan (by July 1, 2021):
  - For **core assets** – Municipalities must have the following:
    - Inventory of assets;
    - Current levels of service measured by standard metrics; and
    - Costs to maintain levels of service.
- Phase 2 – Asset Management Plan (by July 1, 2023):
  - Same steps as Phase 1 but for **all assets**.
- Phase 3 – Asset Management Plan (by July 1, 2024):
  - Builds on Phase 1 and 2 by adding:
    - Proposed levels of service; and
    - Lifecycle management and Financial strategy



## Existing and Forecasted Customers and Volumes

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Township of West Lincoln

# Current Rates – Effective July 1, 2020



2020 - Water Billing Rates		
Base Charge - Per quarter		
5/8"		39.48
3/4"		39.48
1"		98.69
1 1/4"		148.03
1 1/2"		197.38
2"		315.80
3"		631.61
4"		986.90
6"		1,973.77
8"		3,158.03
Volume Charge		
\$	1.410	per m <sup>3</sup>
Volume Charge (Bulk Water)		
\$	1.900	per m <sup>3</sup>

2020 - Wastewater Billing Rates		
Base Charge - Per quarter		
5/8"		91.01
3/4"		91.01
1"		227.54
1 1/4"		341.29
1 1/2"		455.07
2"		728.09
3"		1,456.19
4"		2,275.29
6"		4,550.58
8"		7,280.93
Volume Charge		
\$	1.820	per m <sup>3</sup>



# Customer Profile



Metered	Water	Wastewater
5/8"	2,388	2,382
3/4"	-	-
1"	11	10
1 1/4"	-	-
1 1/2"	16	14
2"	18	16
3"	3	3
4"	1	1
6"	-	-
8"	-	-
<b>Total</b>	<b>2,437</b>	<b>2,426</b>



# Water Forecast Users and Billable Volumes

Have assumed an average of 161 m<sup>3</sup> per customer for future flows.

Water Customer Forecast	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437
New - Growth	39	116	193	276	371	479	598	731	870	1,009	1,148
<b>Total</b>	<b>2,476</b>	<b>2,553</b>	<b>2,630</b>	<b>2,713</b>	<b>2,808</b>	<b>2,916</b>	<b>3,035</b>	<b>3,168</b>	<b>3,307</b>	<b>3,446</b>	<b>3,585</b>

Water Volume Forecast (m <sup>3</sup> )	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Volumes</b>											
Existing	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720
New	6,279	18,676	31,073	44,436	59,763	77,055	96,310	117,691	140,070	162,449	184,828
<b>Total</b>	<b>579,999</b>	<b>592,396</b>	<b>604,793</b>	<b>618,156</b>	<b>633,483</b>	<b>650,775</b>	<b>670,030</b>	<b>691,411</b>	<b>713,790</b>	<b>736,169</b>	<b>758,548</b>

# Wastewater Forecast Users and Billable Volumes



Have assumed an average of 161 m<sup>3</sup> per customer for future flows.

Wastewater Customer Forecast	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	2,426	2,426	2,426	2,426	2,426	2,426	2,426	2,426	2,426	2,426	2,426
New - Growth	39	116	193	276	371	479	598	731	870	1,009	1,148
<b>Total</b>	<b>2,465</b>	<b>2,542</b>	<b>2,619</b>	<b>2,702</b>	<b>2,797</b>	<b>2,905</b>	<b>3,024</b>	<b>3,157</b>	<b>3,296</b>	<b>3,435</b>	<b>3,574</b>

Wastewater Flows Forecast (m <sup>3</sup> )	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Volumes</b>											
Existing	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720
New	6,279	18,676	31,073	44,436	59,763	77,055	96,310	117,691	140,070	162,449	184,828
<b>Total</b>	<b>579,999</b>	<b>592,396</b>	<b>604,793</b>	<b>618,156</b>	<b>633,483</b>	<b>650,775</b>	<b>670,030</b>	<b>691,411</b>	<b>713,790</b>	<b>736,169</b>	<b>758,548</b>



## Capital Needs and Financing

### Township of West Lincoln

# Capital Infrastructure



- Works were identified based on the current budgets, and 2021 to 2030 capital forecast and review of capital infrastructure replacement
- Capital needs were developed by Township staff based on Council approved documents such as the 10-year capital forecast
- Capital works were identified by
  - Need;
  - Timing; and
  - Costs.

# Water Capital System Needs 2021-2030 (pg. 1 of 2)

\$9.16 million – Inflated



Description	Forecast 2021-2030	Timing
<b>Capital Expenditures</b>		
Water Meters - Replacement Program	376,000	2021-2029
Rolling Stock - 2025 - 3/4 Ton Van - To replace 2007 Chevrolet	43,000	2025
Facilities - 2027 - Bulk Water Station - Replace roof shingles	11,000	2027
Main - Replace - Construction - 2022 - Brock St - From: RR 20 To: North End	515,000	2022
Main - Replace - Construction - 2029 - Wade Road N - From: West Street To: South Limit	837,000	2029
Equipment - Miscellaneous Water Equipment	50,000	2021-2029
Water Meters - New Installation	369,000	2021-2029
Facilities - 2027 - Bulk Water Building - New Building	345,000	2027
<b>Studies:</b>		
Operating-Study - Water Loss Study	51,000	2021
Operating-Study - Water Distribution System - Leak detection program	281,000	2024-2028
Operating-Other - Water Loss Program	161,000	2025-2026

# Water Capital System Needs 2021-2030 (pg. 2 of 2)

\$9.16 million – Inflated



Description	Forecast 2021-2030	Timing
<b>Capital Expenditures</b>		
<b>Growth Related:</b>		
Main - Upsize and Replace - Design - 2022 - Spring Creek Rd - From: Station St To: Hornak Rd	13,000	2022
Main - New - Design - 2022 - Spring Creek Rd - From: Hornak Rd To: SG Rd 5	66,000	2022
Main - New - Design - 2022 - Spring Creek Rd - From: SG Rd 5 To: SG Rd 6	40,000	2022
Main - New - Design - 2022 - South Grimsby Rd 5 - From: Spring Creek Rd To: Northridge Dr	40,000	2022
Main - Upsize and Replace - Design - 2022 - South Grimsby Rd 5 - From: Northridge Dr To: HWY 20	28,000	2022
Main - New - Design - 2022 - South Grimsby Rd 6 - Extension - From: Spring Creek Rd To: HWY 20	28,000	2022
Main - Upsize and Replace - Constuction - 2023 - Sping Creek Rd - From: Station St To: Hornak Rd	125,000	2023
Main - New - Construction - 2023 - SG RD 5 - From: Spring Creek Rd To: Northridge Dr	468,000	2023
Main - Upsize and Replace - Constuction - 2023 - SG RD 5 - From: Northridge Dr To: HWY 20	334,000	2023
Main - New - Construction - 2023 - Spring Creek Rd - From: Hornak Rd To: SG Rd 5	805,000	2023
Main - New - Construction - 2023 - Spring Creek Rd - From: SG Rd 5 To: SG Rd 6	416,000	2023
Main - New - Construction - 2023 - SG RD 6 - From: Spring Creek Rd To: HWY 20	377,000	2023
Main - Upsize and Replace - Design - 2023 - Van Woudenberg Way - From: Station St To: West Boundary Limits	42,000	2023
Main - Upsize and Replace - Constuction - 2024 - Van Woudenberg Way - From: Station St To: West Boundary Limits	383,000	2024
Main - Upsize and Replace - Design - 2024 - St. Catherines St - From: Industrial Park Rd To: Frank St	71,000	2024
Main - New - Design - 2024 - St. Catherines St - From: Frank St To: Griffin St	8,000	2024
Main - Upsize and Replace - Design - 2024 - Griffin St. N - From: Griffin St To: Station & West St	17,000	2024
Main - New - Construction - 2024 - Industrial Park Rd - From: London Rd To: Spring Creek Rd	612,000	2024
Main - Upsize and Replace - Constuction - 2025 - St. Catherines St. - From: Industrial Park Rd To: Frank St	794,000	2025
Main - New - Construction - 2025 - St. Catherines St. - From: Frank St To: Griffin St	119,000	2025
Main - Upsize and Replace - Constuction - 2025 - Griffin St. N - From: Griffin St To: Station St	148,000	2025
Main - New - Construction - 2025 - Industrial Park Rd - From: Pearson Rd To: Urban Boundary	441,000	2025
Main - Replace - Design - 2026 - Colver St - From: RR14 To: Wade Rd	48,000	2026
Main - Replace - Construction - 2027 - Colver St - From: RR14 To: Wade Rd	701,000	2027
<b>Total Capital Expenditures</b>	<b>9,163,000</b>	

# Wastewater Capital System Needs 2021-2030

\$3.27 million – Inflated



Description	Forecast 2021-2030	Timing
<b>Capital Expenditures</b>		
<b>Lifecycle:</b>		
Equipment - Miscellaneous Wastewater Equipment	50,000	2021-2029
Equipment - 2021 - Smoke Tester - To replace 2006 Hurco	4,000	2021
<b>Studies:</b>		
Operating-Study - Pollution Control Plan - CSO Study - Extraneous Flow Reduction Program	152,000	2028
<b>Growth Related:</b>		
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	204,000	2021
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	104,000	2022
Operating-Study - Extraneous Flow Reduction Program - Flow Monitoring Study	120,000	2022
Operating-Study - Pollution Control Plan - CSO Study - Extraneous Flow Reduction Program	127,000	2023
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	106,000	2023
Main - Upsize and Replace - Design - 2023 - Hornak Rd & Van Woudenberg Way - From: Station St (MH 167) To: Van Woudenberg Way (MH 340)	37,000	2023
Main - Upsize and Replace - Design - 2023 - Van Woudenberg Way - From: Hornak Rd (MH 454) To: Las Rd (MH 340)	23,000	2023
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	108,000	2024
Main - Upsize and Replace - Constuction - 2024 - Van Woudenberg Way/Hornak Rd - From: Hornak Rd (MH 454) To: Las Rd (MH 340)	381,000	2024
Main - Upsize and Replace - Constuction - 2024 - Hornak Rd - From: Station St (MH 167) To: Van Woudenberg Way (MH 340)	595,000	2024
Main - New - Construction - 2025 - Industrial Park Rd - From: Pearson Rd To: Urban Boundary	743,000	2025
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	110,000	2025
Main - Upsize and Replace - Design - 2026 - Anderson Court - From: MH 230 To: MH 1	25,000	2026
Main - Upsize and Replace - Constuction - 2027 - Anderson Court - From: MH 230 To: MH 1	381,000	2027
<b>Total Capital Expenditures</b>	<b>3,270,000</b>	





# Capital Financing Options

- ✓ Reserves
- ✓ Development Charges
- ✓ Debt
- ✓ Operating Budget Transfers (Funding Reserves)
- Grants
- Municipal Act (Part 12)

# Reserve Balances

As of December 31, 2019



Reserve	Dec. 31 2019
<b>Water</b>	
Capital Reserve	<b>567,764</b>
Development Charges Reserve Fund	<b>532,026</b>
<b>Wastewater</b>	
Capital Reserve	<b>867,287</b>
Development Charges Reserve Fund	<b>646,544</b>



# Proposed Capital Financing Programs

2021-2030 (Inflated \$)

Description	Water 2021-2030	Wastewater 2021-2030
<b>Capital Financing</b>		
Provincial/Federal Grants	-	-
Development Charges Reserve Fund	4,272,456	1,782,932
Non-Growth Related Debenture Requirements	1,096,474	-
Growth Related Debenture Requirements	-	-
Operating Contributions	-	-
Lifecycle Reserve Fund	-	-
Water/Wastewater Reserve	3,794,071	1,487,068
<b>Total Capital Financing</b>	<b>9,163,000</b>	<b>3,270,000</b>

Note:

- The Water D.C. reserve fund is forecasted to be in a deficit position from 2023-2029 (back to positive in 2030).
  - The deficit will reach its peak in 2025 at \$1.7 million.
- Based on the above, the Township may need to issue debentures for the growth-related projects or enter into prepayment/front-ending agreements with developers to assist with cashflow.



## Lifecycle Costs (Existing Infrastructure)

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Township of West Lincoln

# Lifecycle Infrastructure Costs



- The age of the water system dates back to the early 1950's;
- The age of the wastewater system date back to the early 1960's;
- Total value of existing water infrastructure is \$26.4 million;
- Total value of existing wastewater infrastructure is \$30.6 million;
- This provides for a “per customer” investment by the Township of \$10,826 for water and \$12,622 for wastewater.

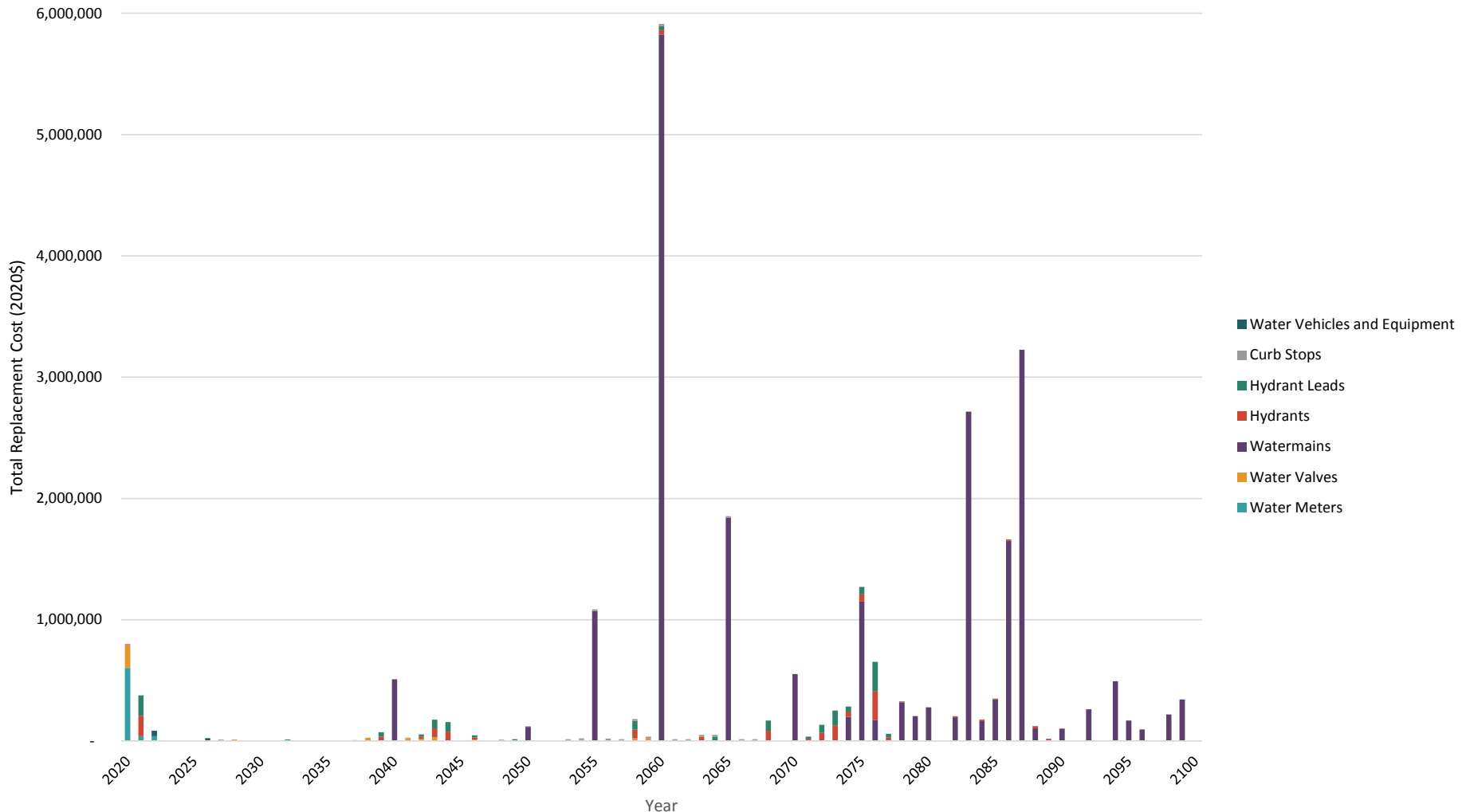
# Summary of Water and Wastewater Asset Inventory



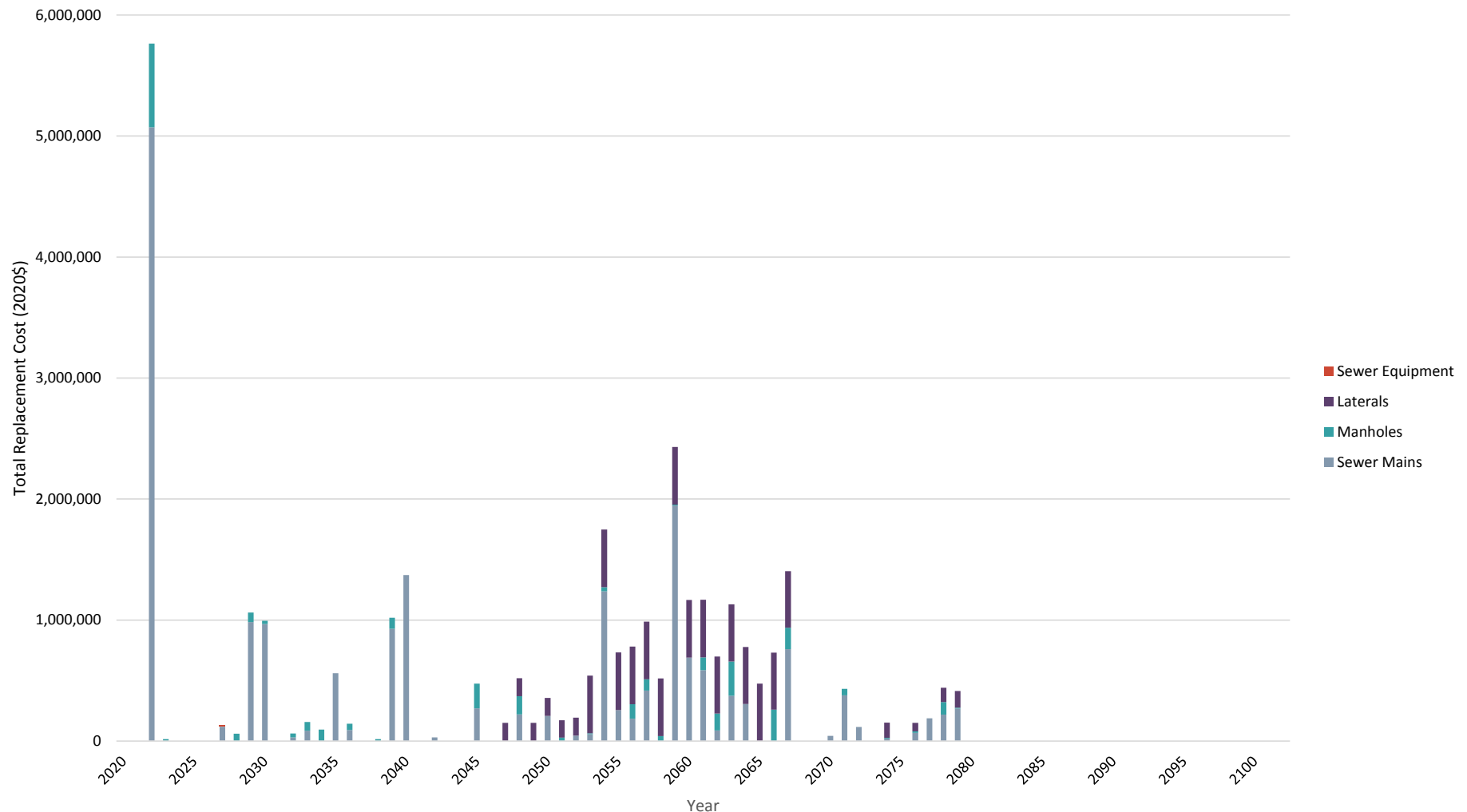
Area	Total Replacement Value	Suggested amount to be included in 10-year forecast based on estimated life	Amount included in capital forecast (Non-Growth Related)	Net Replacement for Future Lifecycle	Annual Lifecycle Replacement
<b>Water</b>					
Water Land	60,655	-	4,759,344	21,563,706	-
Water Facilities	74,434	74,434			-
Water Meters	684,879	682,362			227
Watermains	22,310,387	-			716,111
Hydrants	1,295,136	173,884			40,897
Hydrant Leads	1,224,179	169,059			39,072
Curb Stops	257,760	-			9,733
Water Valves	399,949	206,878			10,169
Water Vehicles and Equipment	76,326	76,001			27
<b>Total Water</b>	<b>26,383,705</b>	<b>1,382,618</b>	<b>4,759,344</b>	<b>21,563,706</b>	<b>816,237</b>
<b>Wastewater</b>					
Sewer Main Inventory	19,103,838	7,133,185	1,762,188	28,859,230	533,704
Sewer Manhole Inventory	3,053,485	870,540			96,731
Sewer Laterals Inventory	8,451,755	-			315,830
Sewer Equipment	12,340	12,340			-
<b>Total Wastewater</b>	<b>30,621,418</b>	<b>8,016,064</b>	<b>1,762,188</b>	<b>28,859,230</b>	<b>946,265</b>
<b>Total</b>	<b>57,005,123</b>	<b>9,398,682</b>	<b>6,521,532</b>	<b>50,422,936</b>	<b>1,762,502</b>

Investment per customer is \$10,826 for water and \$12,622 for wastewater

# Age-Based Water Asset Replacement Schedule (2020\$)



# Age-Based Wastewater Asset Replacement Schedule (2020\$)







## Operating Expenditures

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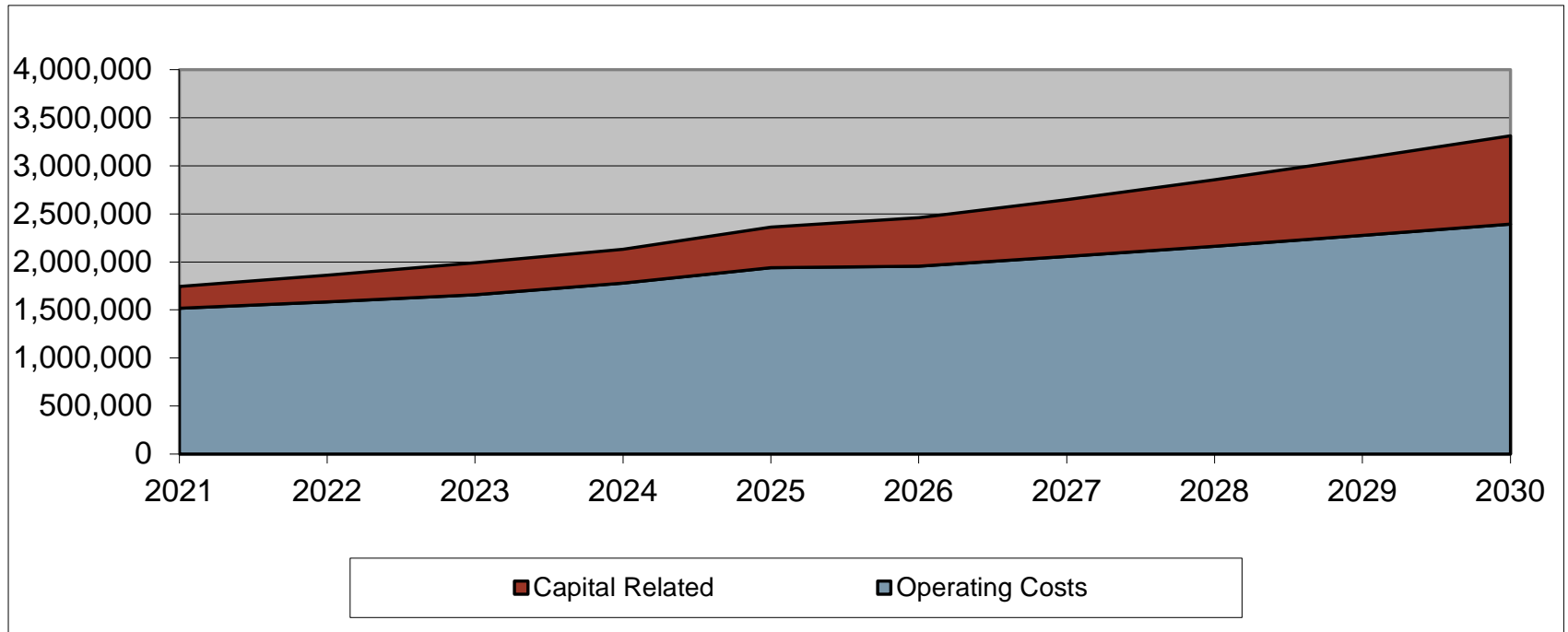
### Township of West Lincoln

# Operating Budgets



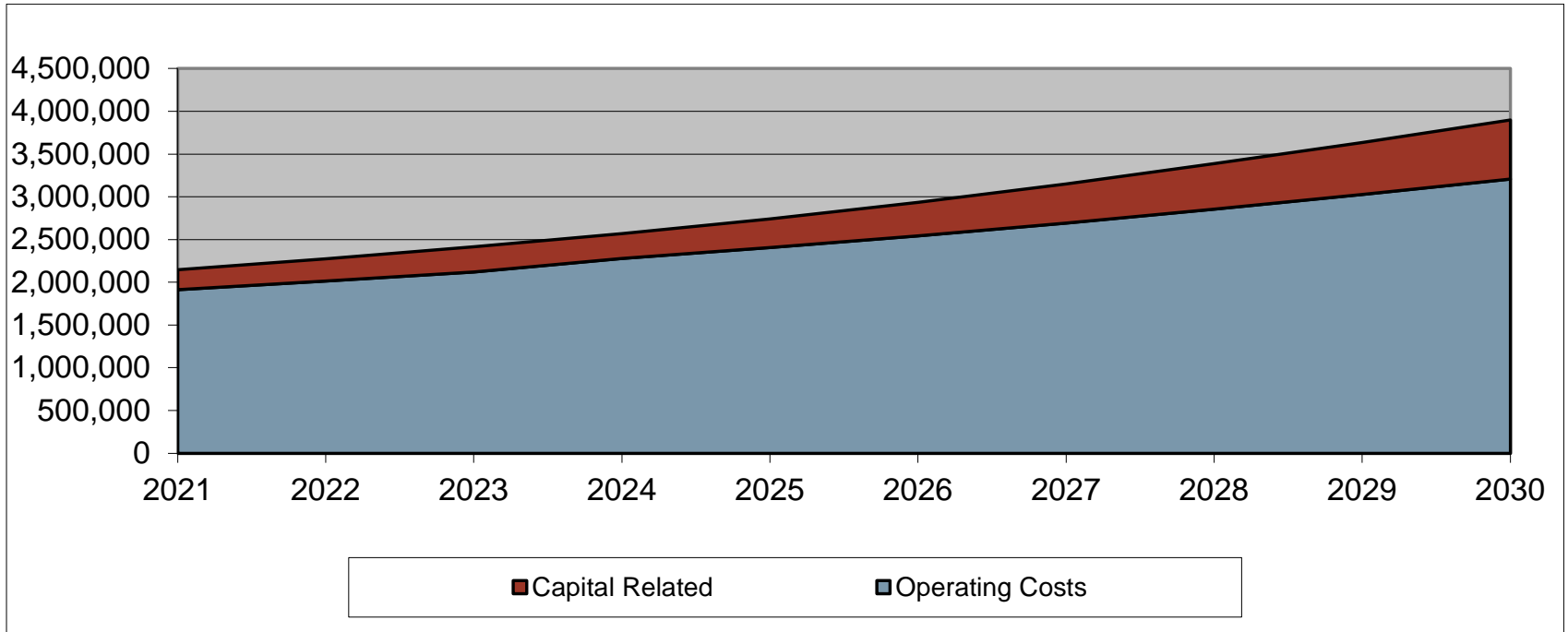
- Operating expenditures are increasing over the forecast to recognize:
  - Inflationary impacts:
    - 5% for utilities and chemicals
    - 2% for salaries and wages
    - 3% all other
  - Public Works staff have also identified the need to add 1 new water/wastewater position in 2021 and another in 2024

# Water Operating Budget



Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operating Costs	1,515,028	1,584,110	1,657,542	1,778,926	1,939,721	1,956,925	2,056,443	2,162,842	2,275,041	2,393,572
Capital Related	229,333	277,480	331,343	350,947	421,116	501,246	592,473	693,064	801,768	919,876
Total	1,744,362	1,861,590	1,988,885	2,129,873	2,360,837	2,458,171	2,648,916	2,855,906	3,076,809	3,313,447

# Wastewater Operating Budget



Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operating Costs	1,912,105	2,012,551	2,120,014	2,279,060	2,406,379	2,544,324	2,694,308	2,855,245	3,026,061	3,207,128
Capital Related	235,697	262,569	293,730	290,112	336,481	392,055	457,946	531,103	608,403	690,304
Total	2,147,801	2,275,120	2,413,744	2,569,171	2,742,860	2,936,379	3,152,254	3,386,348	3,634,464	3,897,432

# Residential Water Rate Forecast

Based on 161 m<sup>3</sup> Annual Volumes



Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Quarterly Base Charge (Jan-June)	\$37.60	\$39.48	\$41.45	\$43.53	\$45.70	\$47.99	\$50.39	\$52.91	\$55.55	\$58.33	\$61.25
Quarterly Base Charge (July-Dec)	\$39.48	\$41.45	\$43.53	\$45.70	\$47.99	\$50.39	\$52.91	\$55.55	\$58.33	\$61.25	\$64.31
Constant Rate (m <sup>3</sup> ) - January to June	\$1.34	\$1.41	\$1.48	\$1.55	\$1.63	\$1.71	\$1.80	\$1.89	\$1.98	\$2.08	\$2.19
Constant Rate (m <sup>3</sup> ) - July to December	\$1.41	\$1.48	\$1.55	\$1.63	\$1.71	\$1.80	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30
<b>Annual Base Charge Bill</b>	<b>\$154.16</b>	<b>\$161.87</b>	<b>\$169.96</b>	<b>\$178.46</b>	<b>\$187.38</b>	<b>\$196.75</b>	<b>\$206.59</b>	<b>\$216.92</b>	<b>\$227.76</b>	<b>\$239.15</b>	<b>\$251.11</b>
January to June Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
July to December Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
<b>Annual Volume Bill</b>	<b>\$221.38</b>	<b>\$232.69</b>	<b>\$244.32</b>	<b>\$256.54</b>	<b>\$269.36</b>	<b>\$282.83</b>	<b>\$296.97</b>	<b>\$311.82</b>	<b>\$327.41</b>	<b>\$343.78</b>	<b>\$360.97</b>
<b>Total Annual Bill</b>	<b>\$375.54</b>	<b>\$394.55</b>	<b>\$414.28</b>	<b>\$434.99</b>	<b>\$456.74</b>	<b>\$479.58</b>	<b>\$503.56</b>	<b>\$528.74</b>	<b>\$555.18</b>	<b>\$582.93</b>	<b>\$612.08</b>
% Increase - Base Rate		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
% Increase - Volume Rate		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
% Increase - Total Annual Bill		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

# Bulk Water Rate Forecast



Bulk Water Rate	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Constant Rate (m <sup>3</sup> ) - January to June	\$1.81	\$1.90	\$2.00	\$2.10	\$2.21	\$2.32	\$2.44	\$2.56	\$2.69	\$2.82	\$2.96
Constant Rate (m <sup>3</sup> ) - July to December	\$1.90	\$2.00	\$2.10	\$2.21	\$2.32	\$2.44	\$2.56	\$2.69	\$2.82	\$2.96	\$3.11
% Increase - Volume Rate		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

# Residential Wastewater Rate Forecast

Based on 161 m<sup>3</sup> Annual Volumes

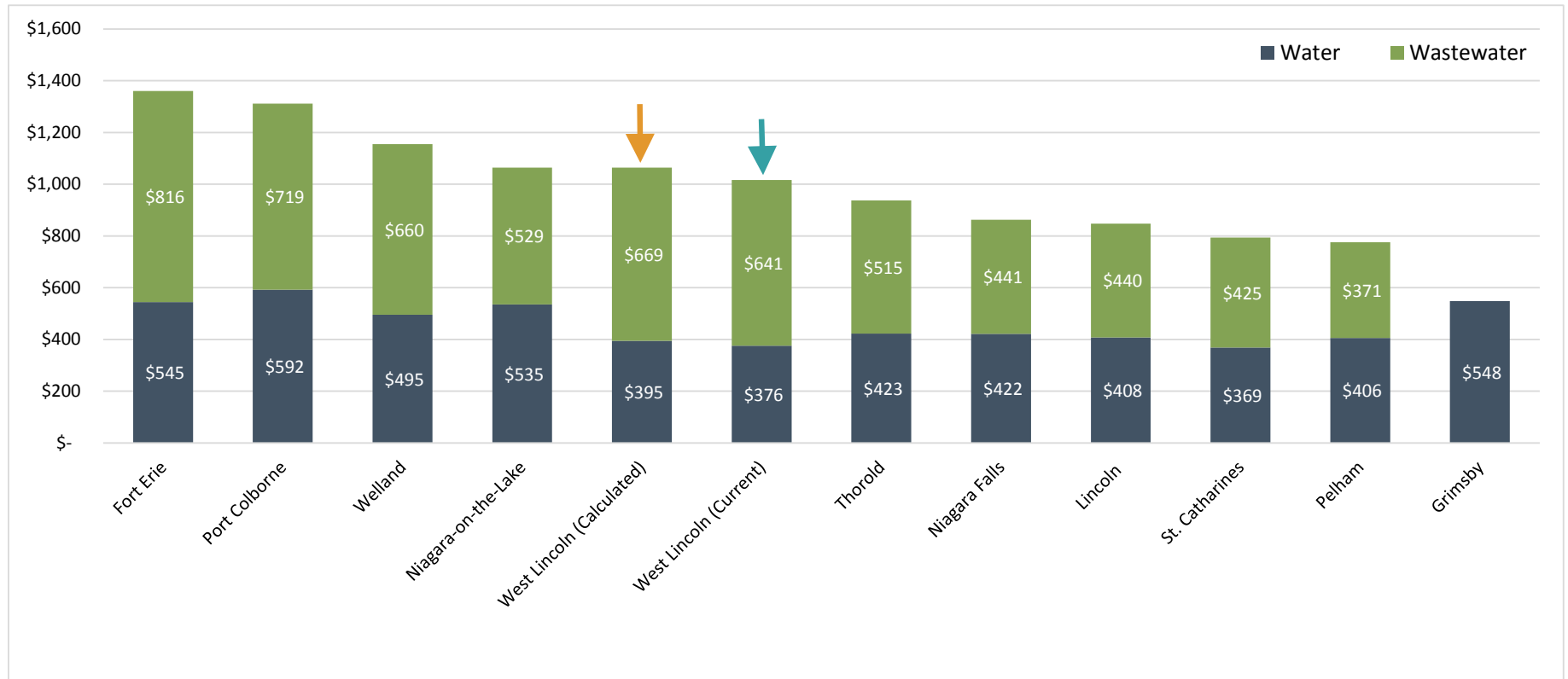


Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Quarterly Base Charge (Jan-June)	\$86.68	\$91.01	\$95.56	\$100.34	\$105.36	\$110.62	\$116.15	\$121.96	\$128.06	\$134.46	\$141.19
Quarterly Base Charge (July-Dec)	\$91.01	\$95.56	\$100.34	\$105.36	\$110.62	\$116.15	\$121.96	\$128.06	\$134.46	\$141.19	\$148.25
Constant Rate (m <sup>3</sup> ) - January to June	\$1.73	\$1.82	\$1.86	\$1.89	\$1.93	\$1.97	\$2.01	\$2.05	\$2.09	\$2.13	\$2.18
Constant Rate (m <sup>3</sup> ) - July to December	\$1.82	\$1.86	\$1.89	\$1.93	\$1.97	\$2.01	\$2.05	\$2.09	\$2.13	\$2.18	\$2.22
<b>Annual Base Rate Bill</b>	<b>\$355.38</b>	<b>\$373.14</b>	<b>\$391.80</b>	<b>\$411.39</b>	<b>\$431.96</b>	<b>\$453.56</b>	<b>\$476.23</b>	<b>\$500.04</b>	<b>\$525.05</b>	<b>\$551.30</b>	<b>\$578.86</b>
January to June Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
July to December Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
<b>Annual Volume Bill</b>	<b>\$285.78</b>	<b>\$295.95</b>	<b>\$301.87</b>	<b>\$307.91</b>	<b>\$314.06</b>	<b>\$320.35</b>	<b>\$326.75</b>	<b>\$333.29</b>	<b>\$339.95</b>	<b>\$346.75</b>	<b>\$353.69</b>
<b>Total Annual Bill</b>	<b>\$641.16</b>	<b>\$669.09</b>	<b>\$693.67</b>	<b>\$719.29</b>	<b>\$746.02</b>	<b>\$773.90</b>	<b>\$802.99</b>	<b>\$833.33</b>	<b>\$865.00</b>	<b>\$898.05</b>	<b>\$932.55</b>
% Increase - Base Rate		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
% Increase - Volume Rate		5%	2%	2%	2%	2%	2%	2%	2%	2%	2%
% Increase - Total Annual Bill		5%	4%	4%	4%	4%	4%	4%	4%	4%	4%


# Comparison of Residential Annual Water and Wastewater Bill



Based on 161 m<sup>3</sup> Annual Volumes







# Water Financial Plan O.Reg. 453/07

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Township of West Lincoln

# Ontario Regulation 453/07 Water Financial Plan



- All municipalities providing water service are required to be licensed to operate their water system.
- Part of the licensing requirement is for the municipality to submit a Financial Plan to the Province
- Current water license expires on June 9, 2021

# Summary of O.Reg. 453/07 Requirements



- The plan is considered a living document but will need to be undertaken at a minimum every five years
- The plans are generally consistent with the "Watson" Approach in forecasting the capital, operating and reserve fund positions, providing detailed inventories, forecasting future volumes and calculation of the rates.
- The additional requirements include the PSAB information for each year of the forecast (i.e. total non-financial assets, tangible capital assets acquisitions, tangible capital asset construction, betterments, write downs, disposals, total liabilities and net debt)
- The financial plans must be made available upon request to the public (without charge) and on the municipality's web site. The availability of this information must also be advertised



# What Does All of This Mean?

- Reporting is mandatory for Water and encouraged for Wastewater services. **The Water Financial Plan has been provided to the Township.**
- The intent of the legislation is for:
  1. municipalities to project future activities for capital (including inventory renewal), operating, reserves and customers (and usage) and then
  2. report it to the Province in PSAB 3150 financial statement format (projected into the future)
- The O. Reg. 453/07 Study must be approved but the forecasted rates (i.e. beyond 2021) do not have to be approved at this time (may be reviewed in detail during next budget cycle)
- The Rate study provides the financial information on which the O. Reg. report has be prepared

# Rate Study vs. O.Reg 453.07 Reporting Format



Significant Revision Areas	Rate Study	O.Reg 453.07 Financial Plan
Approach	"Modified Cash Basis"	"Full Accrual Basis"
Capital Requirements	Capital Forecast	Tangible Capital Assets
Previously acquired assets	Lifecycle Cost Analysis (Future Replacement)	Tangible Capital Assets (Historical Cost)
Debt Payments	Principal & Interest Expense	Interest Expense Principal: Debt reduction
Amortization	Not Applicable	Included in Operating Expenses
Reserve Transfers	Included as an expense	Part of "Accumulated Surplus"
Development Charge Reserve Fund Balances	Reserve Fund Continuity Schedule	Deferred Revenue



## Next Steps

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## Township of West Lincoln



# Matters for Council's Consideration

1. Consider the Capital and Operating Program;
2. Consider the Proposed Water Rates;
3. Consider the Proposed Wastewater Rates; and
4. Approve the Water Financial Plan.

**Joint Accessibility Advisory Committee  
Meeting Minutes  
Thursday, August 13, 2020  
Zoom Meeting  
6:30 p.m. – 8:00 p.m.**

**Present:** Joey Hewitt (Thorold), Stephen Barker (Grimsby), Karen Lemieux (West Lincoln), Ann Villalta (Pelham), Rhys Evans (Pelham), Joanne Goulet (Admin Group Rep.), Brenda Mitchell (West Lincoln), Kathleen Kelly (Lincoln), Dave Antaya (NOTL), Diane Rintjema (Lincoln), Victoria Wilson (Thorold), Donna Herrington (JAAC Coordinator), Donna Delvecchio (Admin Group Rep.)

**Regrets:** Rachel Brown (Grimsby), Carole Fuhrer (Lincoln)

1. **Call to order**

Stephen called the meeting to order at 6:34 pm.

2. **Approval of Agenda**

MOTION: Be it resolved that the agenda be approved. Moved by Joey Hewitt  
Seconded by Kathleen Kelly. CARRIED.

3. **Approval of Minutes from June 25, 2020**

MOTION: Be it resolved that the minutes of June 25, 2020 be approved. Moved  
by Rhys Evans. Seconded by Kathleen Kelly. CARRIED.

**Business Arising from the Minutes:**

4. a) **Accessibility Award – Award Presentations**

Accessibility Award presentations will be moved to September 2020 at the earliest due to COVID. We will do the presentation at the place of business or in front of the municipal offices rather than waiting for a Council meeting. We will invite the Mayor of each municipality to the presentation taking place in their community.

b) **Audits – Grimsby Report:**

Donna circulated the Grimsby Executive Summary and the audit report and reviewed the report with the group. All other audits (except for West Lincoln)



have been done. Thorold's report will be circulated soon for review and input.

## 5. **New Business:**

a) **Post-COVID 19 Accessibility Checklist.** The subcommittee will include Brenda, Kathleen, Joey, Rhys and Donna. The draft checklist will be distributed to the group for review and input.

MOTION: Be it resolved that the Pandemic Accessibility Checklist Subcommittee be formed. Moved by Diane Rintjema. Seconded by Brenda Mitchell. CARRIED.

### b) **Work Plan post September 2020.**

- The committee felt the checklist was a good new direction and new activities may come from it.
- Also, it was suggested that we work to have a meeting with all other AAC's in the Niagara Region.

### c) **JAAC and Grimsby Chamber of Commerce**

Stephen reached out to the Grimsby Chamber of Commerce to offer a rescheduled date for the presentation. They are hosting a Coffee Chat on August 21, 2020 via Zoom and want us to participate. Karen, Joey, Dave and Stephen will participate and talk about the JAAC.

### d) **Niagara On Demand Transit Plan**

The JAAC felt very much unprepared for this new service in Western Niagara. There is a disconnect between the Regional Accessibility Committee and other committees in the area. It was suggested that we invite the Chairperson of the Niagara Region AAC to our next meeting, Laura Ip. Stephen will follow up with her.

MOTION: Be it resolved that the JAAC invite the Niagara Region Accessibility Advisory Committee Chairperson, Laura Ip to our next meeting on October 15, 2020 (via Zoom) Moved by Kathleen Kelly. Seconded by Rhys Evans. CARRIED.

## 6 **Community News**

1) Steve Murphy, Niagara Region Accessibility Coordinator is hosting a webinar on Covid Recovery and Accessibility on August 31, 2020 at 10 am. The target group is businesses in Welland. To register go to [www.downtownwelland.ca](http://www.downtownwelland.ca)

2) Steve Bauer Trail – Council has reversed its previous decision and will now pave the Steve Bauer Trail, providing more accessibility. The trail will be paved before the end of the year.

3) Thorold and Pelham have chosen to continue committee meetings via Zoom until the end of the year.

7     **Next Meeting – Thursday, October 15, 2020, 6:30 – 8:00 pm; Zoom Meeting**

8     **Adjournment**

MOTION: That the meeting is adjourned at 7:40 p.m. Moved by: Ann Villalta , seconded by: Victoria Wilson. CARRIED.

**MINUTES  
WEST LINCOLN PUBLIC LIBRARY  
BOARD MEETING**

Meeting #6: Friday, September 18 2020, 10am  
Zoom

**PRESENT:**

Board:	Cheryl Ganann Sue Langdon Pat Nelson Karen Parker Wendy Wilson
Staff:	Vanessa Holm, Library CEO

**ABSENT:**

Julie Adams Judi Kelly Joan Packham
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**CONFLICT OF INTEREST:**

There were no disclosures of pecuniary interest or conflicts of interest declared by any Members of the West Lincoln Public Library Board.

1. Review and acceptance of minutes of the August 28, 2020 regular meeting

Moved by Pat Nelson and seconded by Karen Parker:

That the minutes of the August 28, 2020 West Lincoln Public Library Board meeting be accepted as presented.

That the confidential minutes relating to the closed session portion of the August 28, 2020 West Lincoln Public Library Board meeting be accepted as presented; and that the minutes remain confidential and restricted from public disclosure in accordance with exemptions provided in the Municipal Freedom of Information and Protection of Privacy Act.

-Carried.

2. Library Business

a) Library Closure and COVID-19 Update

The CEO provided an update on the status of the Library Closure in relation to COVID-19. Items of discussion included but were not limited to:

- Discussions of Provincial Phase 3 and how it relates to West Lincoln Public Library.
- The Library is to gradually resume regular open hours; browsing, computer and curbside pick-up will remain by appointment only, until the public screening tool has been implemented by the Township. At that time, browsing can take place on a drop-in basis as long as capacity limits are followed.
- Some library programs may be offered in-person if physical distancing and other safety procedures are met.

b) Sunday Hours

The CEO provided an update on the status of Sunday hours at the Library. Although we have expanded opening hours, it is recommended that we refrain from opening on Sundays.

3. Financial Matters

a) Budget Status Report

Library CEO presented the budget status report.

Moved by Karen Parker and seconded by Wendy Wilson:

That the Budget Status Report, dated August 31, 2020, be received for information.  
-Carried.

b) 2021 Budgets

The CEO provided an update on the process of drafting the 2021 operating and capital budgets. The Finance Department advised that the operating budget will most likely be due the first week of November, and the Capital budget will be due the first week of December.

4. Closed Session

a) Library staffing update

Moved by Sue Langdon and seconded by Wendy Wilson:

That, the next portion of this meeting be closed to the public, at the time of 11:29am to consider the following pursuant to Section 239(2) of the Municipal Act 2001:

- (a) CEO (Vanessa Holm)  
Re: Personnel Matter – Library staffing update  
Applicable closed session exemption(s):  
-personal matters about an identifiable individual, including municipal or local board employees; and,  
-labour relations or employee negotiations.  
-Carried.

Moved by Wendy Wilson and seconded by Sue Langdon:

That, this West Lincoln Public Library Board meeting does now resume in open session at the time of 11:33am.  
- Carried.

5. CEO's Report – August 2020

Library CEO presented the August 2020 CEO's Report.

6. Correspondence

7. Set next meeting date


October 23, 2020, at 10am. Meeting will take place via zoom, or in person, depending on developments from the Province and/or Public Health.

8. Adjournment

The Library Board meeting was adjourned at 11:39am.

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**CHERYL GANANN, Acting Chair**



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**VANESSA HOLM, CEO**

## CEO's Report – August 2020

### Recorded Library Uses August 2020

**E-books:** 1824 check-outs

**Curbside Pickup Circulation:** 1749 loans

### Social Media and Website:

#### Twitter

Impressions (times displayed for viewers)	3655
Engagement (any interaction with tweets)	52
Number of posts	11
Most Popular Tweet	Browsing appts

#### Facebook

People who saw content	11228
People clicking or engaging with content	678
Number of Posts	21
Most popular post	Browsing appts
Viewers over 1 minute (program attendance)	79

#### Instagram

Posts	8
Post interactions	83
Followers	660
Most popular post	Beagle book meme

#### Website

Page views	2261
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**MINUTES  
WEST LINCOLN PUBLIC LIBRARY  
BOARD MEETING**

Meeting #7: Friday, October 23 2020, 10am  
Zoom

**PRESENT:**

Board:	Julie Adams Cheryl Ganann Judi Kelly Sue Langdon Joan Packham Karen Parker Wendy Wilson (until noon)
Staff:	Vanessa Holm, Library CEO Donna DeFilippis, Township Treasurer

**ABSENT:** Pat Nelson

**CONFLICT OF INTEREST:**

There were no disclosures of pecuniary interest or conflicts of interest declared by any Members of the West Lincoln Public Library Board.

**1. Financial Matters**

a) Budget Status Report

Library CEO presented the budget status report.

Moved by Cheryl Ganann and seconded by Wendy Wilson:

That the Budget Status Report, dated September 30, 2020, be received for information.  
-Carried.

Donna DeFilippis was present to answer questions from Library Board members, including but not limited to:

- Discussion of the Reserves and their use for operating and capital revenues;
- Budget surplus/deficit;
- Discussion of the library's COVID accounts and how expenses, such as staffing, may increase budget; and,
- Possibility of accepting electronic payment at library branches. It was suggested that this could be a project for the Finance department in summer 2021. In the meantime, perhaps paypal, square or eventbrite could be used.

b) 2021 Budgets

Library CEO presented a draft 2021 operating budget. Items of discussion included but were not limited to:

- Budget review process, including final draft budget due November 16, 2020;

- Service level changes, including Wifi hotspots and the addition of a part-time library programmer; and
- Library Page hour increase due to COVID.

c) Writers' Union of Canada Grant

The Supervisor, Library Programs applied for and was successful in receiving a Writers' Union of Canada Grant, to pay for the author fees of Anne Bokma on Dec 8, 2020, who is doing an online author reading.

2. Review and acceptance of minutes of the September 18, 2020 regular meeting

Moved by Sue Langdon and seconded by Julie Adams:

That the minutes of the September 18, 2020 West Lincoln Public Library Board meeting be accepted as presented.

That the confidential minutes relating to the closed session portion of the September 18, 2020 West Lincoln Public Library Board meeting be accepted as presented; and that the minutes remain confidential and restricted from public disclosure in accordance with exemptions provided in the Municipal Freedom of Information and Protection of Privacy Act.

-Carried.

3. Library Business

a) Library Closure and COVID-19 Update

The CEO provided an update on the status of the Library Closure in relation to COVID-19. Items of discussion included but were not limited to:

- Discussions of Provincial Phase 3 and how it relates to West Lincoln Public Library;
- The Library began open drop-in hours for browsing and borrowing the week of October 5, 2020;
- In person programming began the week of October 13, 2020;
- Curbside remains the most popular, with in-person browsing, programming and computer use remaining slow;
- The Library will implement drop-in computer use starting the week of November 2, 2020;
- West Lincoln Library will start exchanging materials as part of the LiNC group starting the week of November 2, 2020 (tentative);
- These changes are outlined in our updated re-opening plan;
- The screening tablet was stolen and may need to be replaced;
- We are still getting some resistance from those not wanting to wear a mask and are therefore tracking how many people come in to the library not wearing a mask.

b) Wellandport Historical Documents



The CEO provided an update on the status of Historical Documents at Wellandport Library. It was decided that these documents be donated to the West Lincoln Historical Society, as they have the means for preservation.

c) Unattended Children/COVID screening Tool

The CEO provided an update on the status of age requirements related to Township facility attendance and COVID screening. Township facility attendees have to be 12 years old to fill out the COVID screening tool. Currently, the Library's unattended children policy does not specify an age. The Board agreed that our Library Use Policy should be amended to include that children under the age of 12 must be accompanied by an adult when at the Library.

d) Halloween

The CEO let the Board know that there had been some requests to celebrate Halloween at the Library, especially with regard to handing out prizes/candy/treats at all branches on Halloween. The Board decided not to distribute items or engage in trick or treating at the libraries.

e) School Library Card Campaign

The CEO updated the Board with regard to the School Library Card Campaign. The Library is moving ahead with this, and cards for West Lincoln Public Library are now available for all students at the DSBN, as well as the private schools in West Lincoln. The Supervisor, Library Programs will be reaching out to all school principals to provide a letter of introduction as well as the form-fillable PDF.

4. CEO's Report – September 2020

Library CEO presented the September 2020 CEO's Report.

5. Correspondence

a) Elections Canada – Robert Ciarlo

The Board discussed the email from Robert Ciarlo, of Elections Canada, regarding the possibility of using Caistorville Library as an election site in Spring 2021. The Board suggested we follow up with a few questions, including whether or not he could use Caistorville school or Abingdon Hall, and whether Elections Canada would cover additional cleaning costs, including providing a cleaner?

6. Set next meeting date

November 13, 2020, at 10am. Meeting will take place via zoom, or in person, depending on developments from the Province and/or Public Health.

7. Closed Session

a) Library staffing update

Moved by Karen Parker and seconded by Cheryl Ganann:

That, the next portion of this meeting be closed to the public, at the time of 11:50am to consider the following pursuant to Section 239(2) of the Municipal Act 2001:

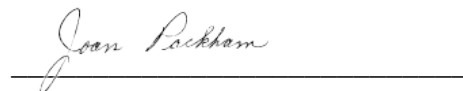
- (a) CEO (Vanessa Holm)  
Re: Personnel Matter – Library staffing update  
Applicable closed session exemption(s):  
-personal matters about an identifiable individual, including municipal or local board employees; and,  
-labour relations or employee negotiations.  
-Carried.

Moved by Karen Parker and seconded by Cheryl Ganann:

That, this West Lincoln Public Library Board meeting does now resume in open session at the time of 12:53pm.  
- Carried.

8. Adjournment

The Library Board Chair adjourned the meeting at 12:54pm.



**JOAN PACKHAM, CHAIR**



**VANESSA HOLM, CEO**

## CEO's Report – September 2020

### Recorded Library Uses September 2020

**E-books:** 1566 check-outs

**Curbside Pickup Circulation:** 1757 loans

### Social Media and Website:

#### Twitter

Impressions (times displayed for viewers)	6989
Engagement (any interaction with tweets)	204
Number of posts	20
Most Popular Tweet	LEGO challenge 2

#### Facebook

People who saw content	14012
People clicking or engaging with content	931
Number of Posts	25
Most popular post	We're hiring
Viewers over 1 minute (program attendance)	164

#### Instagram

Posts	11
Post interactions	157
Followers	669
Most popular post	Volcano photo

#### Website

Page views	2471
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<b>Zoom Program Attendance</b>	<b>53</b>
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**DATE:** November 16, 2020  
**REPORT NO:** T-24-2020  
**SUBJECT:** **October 2020 Budget Status Report**  
**CONTACT:** Donna DeFilippis, Director of Finance

**OVERVIEW:**

- **Presentation and Analysis of operating and capital expenditures as of October 2020 compared to the 2020 approved budget.**
- **Analysis of COVID-19 Pandemic Impact on the Township of West Lincoln's Financial Position is included in this report**

**RECOMMENDATION:**

1. That, Report T-24-2020 dated November 16, 2020, regarding the "October 2020 Budget Status Report", be received for information.

**ALIGNMENT TO STRATEGIC PLAN:**

**Theme #6**

- **Efficient, Fiscally Responsible Operations-** the Township of West Lincoln is a lean organization that uses sustainable, innovative approaches and partnerships to streamline processes, deliver services and manage infrastructure assets.

**BACKGROUND:**

The Finance Department has completed a review of operating results up to the end of October 31st, 2020. **Appendix A** is a summary of the Operating Revenues and Expenditures up to October 31st, 2020. The analysis has taken into account the timing and seasonality of certain budget lines. The column titled "Budget" under the "Operating YTD" heading on the attached analysis indicates the portion of the budget that would be expected to be expended as of October 31st, 2020. This report summarizes the actual operating expenditures up to October 31st, 2020 by service area. **Appendix B** to this report is a presentation of October 31st results by "object" code and includes Capital expenditures. Finally, **Appendix C** to this report provides Council with a snapshot of the Uncommitted Reserve and Reserve Fund Balances projected to December 31, 2020. In addition to the monthly status reports, staff have included **Appendix D**, which is a summary of the impact of the COVID-19 pandemic on Township finances, projected to December 31<sup>st</sup>, 2020.

## CURRENT SITUATION:

### Revenue Analysis:

The final property tax bills were issued at the end of June, with two instalment dates: the last business day of July and September. The impact of the COVID-19 Pandemic on Township Revenues will be discussed later in this report. Planning Department revenues are below expected budget as at the end of October 31<sup>st</sup>, 2020, resulting in the budget line being over-budget. If this trend were to continue for the last quarter of 2020 a deficit compared to budget would occur. Staff is hopeful that this decrease in revenue could be offset by other mitigating items in other budget lines.

### Expenditure Analysis:

Township operating budgets are currently within the approved budget. The impact of the COVID-19 Pandemic on Township Expenditures will be discussed later in this report.

### Purchasing Activity:

The Township's purchasing policy grants the CAO purchasing authority up to \$100,000. In the month of October, the CAO approved the following (the Amount column is before taxes):

Vendor	Amount	Project
Niagara Motors	\$ 66,800.00	Pickup Trucks(2)

### Financial Impact of COVID-19:

Council has approved the following measures as a means of providing financial relief to West Lincoln residents and property owners:

Council approved the following effective March 17, 2020 to June 30, 2020:

- The waiver of penalty for non-payment or late payment of taxes levied and charged in 2020;
- The waiver of penalty and any other associated fees for non-payment or late payment of water bills issued in 2020;
- The waiver of penalty on Accounts Receivable amounts past due;
- The waiver of NSF (non-sufficient funds) charges; and,
- Water services will not be disconnected for non-payment for the remainder of 2020.

The cost to the Township for the above relief measures is \$60,470.

Attached as **Appendix D** to this report is a summary of the financial impact of COVID-19 on the Township finances. The report outlines lost revenue, additional expenditures and mitigating factors. It is estimated that the Township would have an **overall negative impact of \$285,064 up to December 31, 2020** as a result of the COVID-19 pandemic.

On August 12<sup>th</sup>, staff were notified that the Township would be in receipt of **\$329,800** through the federal-provincial Safe Restart Agreement. This allocation was calculated on a per household basis. Our Township will be accountable for using this funding for the purpose of addressing the impacts of COVID-19 on the Township's operations. Any excess funds will have to be placed into a reserve to be accessed to support COVID-19 operating costs and pressures that will continue into 2021. At the time of preparing this report, there has been no announcement regarding any funding available to municipalities to manage 2021 COVID-19 operating costs.

The Township closed all of its facilities to the public, except the Township office, effective March 14<sup>th</sup>, 2020. The Township office closed to the public at noon on March 17<sup>th</sup>, 2020. The closure of the West Lincoln Community Centre (WLCC) resulted in the cancellation of booked rentals, March Break Camp, drop-in programs and fitness classes. In addition, the spring and fall fitness program have been cancelled. Field rental income was extremely limited and arena revenue from September to December 2020 is anticipated to only be 68% of the budget. All of these items results in a forecasted decrease in revenues of \$139,580.

In response to the current crisis, the Township has incurred some additional costs such as the purchase of additional hand sanitizer, cleaning supplies, protective equipment and signage. Also, additional expenditures have been incurred related to Information Technology as the Township transitions to conducting business while maintaining social distancing. New ways of conducting business with the use of technology have been quickly implemented to ensure service continuity. At this point, actual costs incurred are \$89,129. An estimated additional cost of \$6,900 has been included in the analysis and will be updated as actual costs are determined.

Additional expenses also include increased staffing costs for cleaning and screening at the Community Centre, estimated at \$26,415 in total. In addition, the line item "Wastewater Reconciliation Increase attributable to COVID-19" totalling \$66,300 has been added to Appendix D as a cost attributable to the Pandemic.

The Niagara Region bills the lower tier municipalities wastewater fixed costs based on an estimated share (a distribution based on average wastewater flows of each municipalities previous three years). An annual adjustment or reconciliation is applied to apportion the budgeted cost using actual flows. The most recent data received from the Niagara Region indicates that the Township is currently in a position to pay an additional \$241,000 on top of the annual cost of \$1,238,000 which is billed equally over a 12-month period. The Township budgets an annual amount in anticipation of this reconciliation, based on the average prior five years. For 2020, this amount was \$60,700. Staff have analysed a large amount of data related to wastewater flows as a result of this large reconciling figure. Staff have noted that the months of April to July 2020 have seen the Township experience lower wastewater flows than the same period of the previous year. Although flows have decreased, the Township's percentage of total flows measured has increased. Staff has recognized that this is attributable to other Niagara Municipalities having much larger drops in flows. This particularly impacts municipalities that were

impacted by large decreases in commercial and industrial usage. For example, in May 2020, the Township experienced a 10% reduction in flows, however, the average among the other Niagara municipalities was approximately 30%. In essence, West Lincoln is contributing a larger percentage of the total. The impact calculated during the months of April to July 2020 has been estimated at \$66,300. The remainder of the reconciliation, estimated at an additional \$174,700 will be partially funded through the 2020 budget (\$60,700) with the remainder funded through the sewer reserve (\$114,000).

During the month of October, it was necessary for staff to transfer additional Hall Board Grants totalling \$7,570 to Wellandport Hall Board and Caistor Community Center Hall Board. These additional grants will assist the Hall Boards with their ability to pay their utility bills. Council is reminded that the two facilities represented through these two Hall Boards are owned by the Township. Typically, the revenue generated through Hall Board rentals is sufficient to cover utility costs. Unfortunately, the current pandemic has severely restricted their ability to raise funds.

Mitigating factors totalling \$151,200 have provided an offset to the lost revenue and additional expenditures. An estimated total of \$69,500 results from the delay in hiring of new positions approved in the 2020 budget. This savings is up to June 30<sup>th</sup>, after which hiring would commence. Also, the Township will have lower expenditures due to the laying off of crossing guards and the cancellation of spring fitness classes. Canada Day was celebrated virtually, in collaboration with other Niagara municipalities. Staff is projecting a savings from the cancellation of Township Canada Day programming of approximately \$34,700.

The Library has also incurred costs related to the Pandemic, which at this point will be mitigated by the laying off of part-time staff for a period of time while the Library was closed. However, the impact has not been reflected in this analysis.

As part of their advocacy efforts to both the Provincial and Federal Governments, the Niagara Region requested that the lower tier municipalities summarize any COVID-19 related costs that may fall within their approved budget. These items do not have any financial impact on the Township, instead, they represent items that are related to the Township's response to the COVID-19 Pandemic using resources already budgeted for. At the start of this pandemic, certain employee groups adopted work schedules that impeded their ability to attend work on a full-time basis. A total of \$166,000 is attributable to the staff time related to the above circumstance.

In addition, several staff members and all of Senior Management have been active participants in both the EOC (Emergency Operations Centre) and the COVID-19 Recovery Team. It has been estimated that for the first 15 weeks of the pandemic (March to June) Senior Management spent approximately 60% of their time managing the pandemic, with other senior staff spending approximately 40% of their time. For the period July 1<sup>st</sup> to December 31<sup>st</sup>, we are estimating that Senior Management and other senior staff are spending on average approximately 29% of their time on COVID -19 related issues. The staff costs related to the estimates above equate to approximately \$531,900.

The total of the two situations above is \$697,900. Again, this is not a cost to the Township, but instead is an approximation of staff time both spent managing and responding to the COVID-19 pandemic

**INTER-DEPARTMENTAL COMMENTS:**

This report was reviewed by the CAO.

**CONCLUSION:**

It is concluded that Council receive the October 2020 Budget Status Report as an item of information.

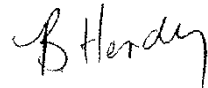
**Prepared & Submitted by:**



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**Donna DeFilippis, Director of Finance**

**Approved by:**



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**Bev Hendry, CAO**



TOWNSHIP OF WEST LINCOLN

For the Ten Months Ending Saturday, October 31, 2020

	Actuals	Operating YTD		Variance (%)	Budget	Operating Total	
		Budget	Variance (\$)			Variance (\$)	Variance (%)
<b>General</b>							
General	<b>(\$8,856,597.72)</b>	(\$7,557,270.00)	\$1,299,327.72	(17.%)	<b>(\$9,068,700.00)</b>	(\$212,102.28)	2.%
Equipment	<b>-70,874.87</b>		70,874.87	0.%		70,874.87	0.%
<b>Total General</b>	<b>-8,927,472.59</b>	<b>-7,557,270.00</b>	<b>1,370,202.59</b>	<b>(18.%)</b>	<b>-9,068,700.00</b>	<b>-141,227.41</b>	<b>2.%</b>
<b>General Government</b>							
Governance	<b>226,381.51</b>	241,520.00	15,138.49	6.%	<b>289,800.00</b>	63,418.49	22.%
Corporate Management	<b>1,257,199.53</b>	1,369,160.00	111,960.47	8.%	<b>1,643,000.00</b>	385,800.47	23.%
<b>Total General Government</b>	<b>1,483,581.04</b>	<b>1,610,680.00</b>	<b>127,098.96</b>	<b>8.%</b>	<b>1,932,800.00</b>	<b>449,218.96</b>	<b>23.%</b>
<b>Protection Services</b>							
Fire	<b>1,001,820.58</b>	1,034,690.00	32,869.42	3.%	<b>1,241,600.00</b>	239,779.42	19.%
Building Permit & Inspection Serv	<b>185,460.21</b>	80,750.00	-104,710.21	(130.%)	<b>96,900.00</b>	-88,560.21	(91.%)
Provincial Offences Act	<b>-14,064.10</b>	-14,910.00	-845.90	6.%	<b>-17,900.00</b>	-3,835.90	21.%
Animal Control	<b>14,456.72</b>	17,670.00	3,213.28	18.%	<b>21,200.00</b>	6,743.28	32.%
<b>Total Protection Services</b>	<b>1,187,673.41</b>	<b>1,118,200.00</b>	<b>-69,473.41</b>	<b>(6.%)</b>	<b>1,341,800.00</b>	<b>154,126.59</b>	<b>11.%</b>
<b>Transportation Services</b>							
Roads Paved & Unpaved	<b>1,754,124.44</b>	1,726,900.00	-27,224.44	(2.%)	<b>2,072,300.00</b>	318,175.56	15.%
Traffic Operations & Roadside Ma	<b>66,012.29</b>	202,870.00	136,857.71	67.%	<b>243,400.00</b>	177,387.71	73.%
Winter Control	<b>472,988.43</b>	570,480.00	97,491.57	17.%	<b>684,600.00</b>	211,611.57	31.%
Crossing Guards	<b>35,091.45</b>	57,010.00	21,918.55	38.%	<b>68,400.00</b>	33,308.55	49.%
Streetlights	<b>-35,989.28</b>	21,070.00	57,059.28	271.%	<b>25,300.00</b>	61,289.28	242.%
Bridges & Culverts	<b>170,390.84</b>	183,830.00	13,439.16	7.%	<b>220,600.00</b>	50,209.16	23.%
<b>Total Transportation Services</b>	<b>2,462,618.17</b>	<b>2,762,160.00</b>	<b>299,541.83</b>	<b>11.%</b>	<b>3,314,600.00</b>	<b>851,981.83</b>	<b>26.%</b>
<b>Environmental Services</b>							
Wastewater	<b>-5,507.61</b>		5,507.61	0.%		5,507.61	0.%
Storm Sewer	<b>33,177.82</b>	96,250.00	63,072.18	66.%	<b>115,500.00</b>	82,322.18	71.%
Water	<b>201,196.92</b>	10.00	-201,186.92	(2011869.%)		-201,196.92	0.%
<b>Total Environmental Services</b>	<b>228,867.13</b>	<b>96,260.00</b>	<b>-132,607.13</b>	<b>(138.%)</b>	<b>115,500.00</b>	<b>-113,367.13</b>	<b>(98.%)</b>
<b>Heath Services</b>							
Cemeteries	<b>81,518.09</b>	69,340.00	-12,178.09	(18.%)	<b>83,200.00</b>	1,681.91	2.%
<b>Total Heath Services</b>	<b>81,518.09</b>	<b>69,340.00</b>	<b>-12,178.09</b>	<b>(18.%)</b>	<b>83,200.00</b>	<b>1,681.91</b>	<b>2.%</b>
<b>Recreation &amp; Cultural Services</b>							
Parks	<b>303,237.62</b>	322,240.00	19,002.38	6.%	<b>386,700.00</b>	83,462.38	22.%
Recreation Programs	<b>209,758.61</b>	302,490.00	92,731.39	31.%	<b>363,000.00</b>	153,241.39	42.%
Recreational Facilities	<b>457,076.40</b>	464,900.00	7,823.60	2.%	<b>557,900.00</b>	100,823.60	18.%
Libraries	<b>418,968.88</b>	534,090.00	115,121.12	22.%	<b>640,900.00</b>	221,931.12	35.%
<b>Total Recreation &amp; Cultural Services</b>	<b>1,389,041.51</b>	<b>1,623,720.00</b>	<b>234,678.49</b>	<b>14.%</b>	<b>1,948,500.00</b>	<b>559,458.49</b>	<b>29.%</b>
<b>Planning &amp; Development</b>							
Planning & Heritage	<b>417,730.04</b>	229,730.00	-188,000.04	(82.%)	<b>275,700.00</b>	-142,030.04	(52.%)
Drainage	<b>43,822.77</b>	34,670.00	-9,152.77	(26.%)	<b>41,600.00</b>	-2,222.77	(5.%)
Climate Change	<b>46,123.92</b>	12,500.00	-33,623.92	(269.%)	<b>15,000.00</b>	-31,123.92	(207.%)
<b>Total Planning &amp; Development</b>	<b>507,676.73</b>	<b>276,900.00</b>	<b>-230,776.73</b>	<b>(83.%)</b>	<b>332,300.00</b>	<b>-175,376.73</b>	<b>(53.%)</b>
	<b>-1,586,496.51</b>	<b>-10.00</b>	<b>1,586,486.51</b>	<b>(15864865.%)</b>		<b>1,586,496.51</b>	<b>0.%</b>

**TOWNSHIP OF WEST LINCOLN**  
**Summary of All Units**  
For the Ten Months Ending Saturday, October 31, 2020

	YTD				Annual		
	Budget	Actual	Variance (\$)	Variance (%)	Budget	Remaining (\$)	Remaining (%)
<b><u>Operating Revenue</u></b>							
Tax Levy	\$6,275,340.00	<b>\$7,529,442.12</b>	(\$1,254,102.12)	(20.%)	<b>\$7,530,400.00</b>	\$957.88	0.0%
Street Light Levy	65,750.00	<b>78,932.91</b>	-13,182.91	(20.%)	<b>78,900.00</b>	-32.91	(0.0%)
Sidewalk Levy	91,250.00	<b>109,549.27</b>	-18,299.27	(20.%)	<b>109,500.00</b>	-49.27	(0.0%)
Supplemental Levy	50,000.00	<b>103,989.97</b>	-53,989.97	(108.%)	<b>60,000.00</b>	-43,989.97	(73.0%)
Supplemental Streetlight Levy		<b>1,376.00</b>	-1,376.00	0.0%		-1,376.00	0.0%
Supplemental Sidewalk Levy		<b>1,880.80</b>	-1,880.80	0.0%		-1,880.80	0.0%
Payment In Lieu	596,080.00	<b>715,317.66</b>	-119,237.66	(20.%)	<b>715,300.00</b>	-17.66	(0.0%)
User Fees	4,571,489.30	<b>3,591,664.08</b>	979,825.22	21.0%	<b>5,485,759.00</b>	1,894,094.92	35.0%
Government Transfers	1,165,876.30	<b>1,285,661.03</b>	-119,784.73	(10.0%)	<b>1,399,063.45</b>	113,402.42	8.0%
Other Revenue	933,070.00	<b>539,029.77</b>	394,040.23	42.0%	<b>1,119,700.00</b>	580,670.23	52.0%
Allocation of Program Support	1,212,000.00	<b>1,454,400.00</b>	-242,400.00	(20.0%)	<b>1,454,400.00</b>		0.0%
Funding From Reserves	894,259.70	<b>45,000.00</b>	849,259.70	95.0%	<b>1,073,115.15</b>	1,028,115.15	96.0%
<b>Total Operating Revenue</b>	<b>15,855,115.30</b>	<b>15,456,243.61</b>	<b>398,871.69</b>	<b>3.0%</b>	<b>19,026,137.60</b>	<b>3,569,893.99</b>	<b>19.0%</b>
<b><u>Operating Expenses</u></b>							
Salaries and Wages	4,348,900.00	<b>3,846,517.61</b>	502,382.39	12.0%	<b>5,218,700.00</b>	1,372,182.39	26.0%
Benefits	1,245,580.00	<b>1,059,846.77</b>	185,733.23	15.0%	<b>1,494,800.00</b>	434,953.23	29.0%
Debt Interest	515,910.00	<b>563,724.47</b>	-47,814.47	(9.0%)	<b>619,100.00</b>	55,375.53	9.0%
Administrative Expenses	250,280.00	<b>96,422.83</b>	153,857.17	61.0%	<b>300,300.00</b>	203,877.17	68.0%
Supplies and Equipment	297,110.00	<b>260,607.70</b>	36,502.30	12.0%	<b>356,500.00</b>	95,892.30	27.0%
Repairs and Maintenance (Materials Only)	1,241,450.00	<b>1,175,860.88</b>	65,589.12	5.0%	<b>1,489,700.00</b>	313,839.12	21.0%
Utilities	403,060.00	<b>294,726.26</b>	108,333.74	27.0%	<b>483,700.00</b>	188,973.74	39.0%
Insurance	198,490.00	<b>229,677.98</b>	-31,187.98	(16.0%)	<b>238,200.00</b>	8,522.02	4.0%
Subscriptions and Periodicals	5,920.00	<b>4,911.95</b>	1,008.05	17.0%	<b>7,100.00</b>	2,188.05	31.0%
Contracted Services	2,587,040.00	<b>1,962,176.28</b>	624,863.72	24.0%	<b>3,104,400.00</b>	1,142,223.72	37.0%
Special Projects	1,315,465.50	<b>355,266.22</b>	960,199.28	73.0%	<b>1,578,537.60</b>	1,223,271.38	77.0%
Rents and Financial Expenses	54,750.00	<b>39,500.29</b>	15,249.71	28.0%	<b>65,700.00</b>	26,199.71	40.0%
External Transfers	31,080.00	<b>34,050.00</b>	-2,970.00	(10.0%)	<b>37,300.00</b>	3,250.00	9.0%
Internal Functional Adjustments	543,990.00	<b>652,800.00</b>	-108,810.00	(20.0%)	<b>652,800.00</b>		0.0%
Allocation of Program Support	668,010.00	<b>801,600.00</b>	-133,590.00	(20.0%)	<b>801,600.00</b>		0.0%
Tax Write Off	62,330.00	<b>101,296.06</b>	-38,966.06	(63.0%)	<b>74,800.00</b>	-26,496.06	(35.0%)
Debt Principal	595,750.00	<b>648,113.27</b>	-52,363.27	(9.0%)	<b>714,900.00</b>	66,786.73	9.0%
Contribution to Reserves	1,489,990.00	<b>1,740,500.00</b>	-250,510.00	(17.0%)	<b>1,788,000.00</b>	47,500.00	3.0%
<b>Total Operating Expenses</b>	<b>15,855,105.50</b>	<b>13,867,598.57</b>	<b>1,987,506.93</b>	<b>13.0%</b>	<b>19,026,137.60</b>	<b>5,158,539.03</b>	<b>27.0%</b>
<b>Operating Surplus/(Deficit)</b>	<b>9.80</b>	<b>1,588,645.04</b>	<b>-1,588,635.24</b>	<b>(16210564.0%)</b>		<b>-1,588,645.04</b>	<b>0.0%</b>
<b><u>Capital Revenue</u></b>							
User Fees	2,116,664.40		2,116,664.40	100.0%	<b>2,540,009.02</b>	2,540,009.02	100.0%
Government Transfers	1,619,600.80	<b>227,322.00</b>	1,392,278.80	86.0%	<b>1,943,520.69</b>	1,716,198.69	88.0%
Other Revenue	61,670.00	<b>95,370.00</b>	-33,700.00	(55.0%)	<b>74,000.00</b>	-21,370.00	(29.0%)
TCA Sale Proceeds		<b>2.00</b>	-2.00	0.0%		-2.00	0.0%
Proceeds From Debentures	785,500.00		785,500.00	100.0%	<b>942,600.00</b>	942,600.00	100.0%
Funding From Reserves	5,316,045.20		5,316,045.20	100.0%	<b>6,379,249.57</b>	6,379,249.57	100.0%
<b>Total Capital Revenue</b>	<b>9,899,480.40</b>	<b>322,694.00</b>	<b>9,576,786.40</b>	<b>97.0%</b>	<b>11,879,379.28</b>	<b>11,556,685.28</b>	<b>97.0%</b>
<b><u>Capital Expenditures</u></b>							
Land Improvements	488,600.70	<b>62,911.43</b>	425,689.27	87.0%	<b>586,324.69</b>	523,413.26	89.0%
Facilities	1,837,186.00	<b>162,787.96</b>	1,674,398.04	91.0%	<b>2,204,627.07</b>	2,041,839.11	93.0%
Equipment	276,086.80	<b>93,362.92</b>	182,723.88	66.0%	<b>331,300.00</b>	237,937.08	72.0%
Rolling Stock	1,544,187.50	<b>913,115.79</b>	631,071.71	41.0%	<b>1,853,033.00</b>	939,917.21	51.0%
Transportation Infrastructure	2,906,667.60	<b>2,586,150.25</b>	320,517.35	11.0%	<b>3,487,996.83</b>	901,846.58	26.0%
Environmental Infrastructure	2,846,751.60	<b>454,814.28</b>	2,391,937.32	84.0%	<b>3,416,097.69</b>	2,961,283.41	87.0%
<b>Total Capital Expenditures</b>	<b>9,899,480.20</b>	<b>4,273,142.63</b>	<b>5,626,337.57</b>	<b>57.0%</b>	<b>11,879,379.28</b>	<b>7,606,236.65</b>	<b>64.0%</b>
<b>Capital Surplus/(Deficit)</b>	<b>0.20</b>	<b>-3,950,448.63</b>	<b>3,950,448.83</b>	<b>1975224415.0%</b>		<b>3,950,448.63</b>	<b>0.0%</b>

RESERVE FUND AND RESERVE BALANCES WITH 2020 BUDGET IMPACTS

		PROJECTED UNCOMMITTED December 31, 2019	BUDGET IMPACTS 2020	PROJECTED UNCOMMITTED 2020
<b>RESERVE FUNDS:</b>				
BUILDING REVENUES RESERVE	\$	705,166	-\$ 196,500	\$ 508,666
LIBRARY	\$	136,431	-\$ 26,200	\$ 110,231
<b>TOTAL RESERVE FUNDS</b>	<b>\$</b>	<b>841,597</b>	<b>-\$ 222,700</b>	<b>\$ 618,897</b>
<b>RESERVES:</b>				
ARENA BUILDING FUND	\$	12,555	\$ 1,400	\$ 13,955
RECREATION	\$	1,003	\$ -	\$ 1,003
TECHNOLOGY	\$	38,265	\$ 98,800	\$ 137,065
PLANNING RESERVE	\$	21,454	\$ 80,000	\$ 101,454
CEMETARIES	\$	30,000	-\$ 35,000	\$ 5,000
ACCESSIBILITY RESERVE	\$	29,491	\$ -	\$ 29,491
EQUIPMENT RESERVE	\$	355,527	\$ 133,000	\$ 488,527
STREET LIGHTS	\$	64,752	\$ -	\$ 64,752
ELECTION EXPENSE	\$	48,920	\$ 36,000	\$ 84,920
RATE STABILIZATION RESERVE	\$	59,000	\$ -	\$ 59,000
FIRE RESERVE	\$	151,498	\$ 363,000	\$ 514,498
FACILITY RESERVE	\$	97,482	\$ 129,400	\$ 226,882
WORKING FUNDS	\$	135,159	-\$ 45,000	\$ 90,159
SIDEWALKS	\$	124,651	\$ 9,000	\$ 133,651
INSURANCE	\$	187,655	\$ -	\$ 187,655
SETTLEMENT ROAD AGREEMENT RESERVE	\$	584,671	-\$ 330,000	\$ 254,671
BRIDGES	\$	58,906	\$ 23,000	\$ 81,906
WATER DEPT. PROJECTS	\$	567,764	-\$ 157,500	\$ 410,264
ROADS-WINTER CONTROL	\$	412,100	\$ 63,100	\$ 475,200
WIND TURBINE COMMUNITY FUND RESERVE	\$	791,887	-\$ 243,000	\$ 548,887
SEWER PROJECTS	\$	867,287	-\$ 410,300	\$ 456,987
CAPITAL	\$	1,138,912	-\$ 177,500	\$ 961,412
CONTINGENCIES	\$	704,599	-\$ 129,100	\$ 575,499
INDUSTRIAL PARK	\$	160,570	\$ -	\$ 160,570
HOSPITAL RESERVE	\$	1,250,000	\$ -	\$ 1,250,000
<b>TOTAL RESERVES</b>	<b>\$</b>	<b>7,894,108</b>	<b>-\$ 590,700</b>	<b>\$ 7,303,408</b>
<b>TOTAL RESERVE FUNDS AND RESERVES</b>	<b>\$</b>	<b>8,735,705</b>	<b>-\$ 813,400</b>	<b>\$ 7,922,305</b>

FINANCIAL IMPACT OF COVID-19 ESTIMATED TO DECEMBER 31, 2020

		Actual	Estimated	Total
<b>REVENUE LOSS</b>				
<b>Relief Measures</b>				
Waiver of Current Tax Interest	April	\$ 7,020.00	\$ -	\$ 7,020.00
	May	\$ 20,030.00	\$ -	\$ 20,030.00
	June	\$ 16,045.00	\$ -	\$ 16,045.00
		\$ 43,095.00	\$ -	\$ 43,095.00
Waiver of Water Penalty & Charges	April	\$ 1,340.00		\$ 1,340.00
	May	\$ 5,200.00	\$ -	\$ 5,200.00
	June	\$ 2,380.00	\$ 1,980.00	\$ 4,360.00
	July to Dec	\$ -	\$ 4,000.00	\$ 4,000.00
		\$ 8,920.00	\$ 5,980.00	\$ 14,900.00
Waiver of AR Interest	April	\$ 1,260.00		\$ 1,260.00
	May	\$ 280.00	\$ -	\$ 280.00
	June	\$ 935.00	\$ -	\$ 935.00
		\$ 2,475.00	\$ -	\$ 2,475.00
<b>Total Relief Measures</b>		<b>\$ 54,490.00</b>	<b>\$ 5,980.00</b>	<b>\$ 60,470.00</b>
<b>Closures</b>				
Facility Rentals (includes Arena)		\$ 33,260.00	\$ 45,100.00	\$ 78,360.00
March Break Camp		\$ 7,490.00	\$ -	\$ 7,490.00
Fitness Classes		\$ 2,080.00	\$ 9,000.00	\$ 11,080.00
Arena Advertising Loss in Revenue		\$ 6,250.00	\$ -	\$ 6,250.00
Public Skating & Drop-In			\$ 5,800.00	\$ 5,800.00
Field Rental			\$ 30,600.00	\$ 30,600.00
<b>Total Closures</b>		<b>\$ 49,080.00</b>	<b>\$ 90,500.00</b>	<b>\$ 139,580.00</b>
<b>Other</b>				
Beautification Sponsors		\$ -	\$ 5,000.00	\$ 5,000.00
POA Revenue Loss (Provincial Offences)			\$ 11,900.00	\$ 11,900.00
Decrease in Bank Interest Revenue			\$ 23,000.00	\$ 23,000.00
<b>Total Other</b>		<b>\$ -</b>	<b>\$ 39,900.00</b>	<b>\$ 39,900.00</b>
<b>TOTAL REVENUE LOSS</b>		<b>\$ 103,570.00</b>	<b>\$ 136,380.00</b>	<b>\$ 239,950.00</b>
<b>ADDITIONAL EXPENSES</b>				
Supplies and Contracted Services		\$ 89,129.00	\$ 6,900.00	\$ 96,029.00
Wastewater Reconciliation Increase attributable to COVID			\$ 66,300.00	\$ 66,300.00
Additional Hall Board Grants			\$ 7,570.00	\$ 7,570.00
Cleaning Staff			\$ 4,100.00	\$ 4,100.00
Screening Staff		\$ 2,915.00	\$ 19,400.00	\$ 22,315.00
		<b>\$ 92,044.00</b>	<b>\$ 104,270.00</b>	<b>\$ 196,314.00</b>
<b>MITIGATING FACTORS</b>				
Non-Hiring of New 2020 Staffing Positions		\$ -	\$ 69,500.00	\$ 69,500.00
Reduction in Summer Student Hiring - Parks		\$ 27,500.00	\$ -	\$ 27,500.00
Cancellation of Township Canada Day Programming		\$ -	\$ 34,700.00	\$ 34,700.00
Crossing Guard Layoffs		\$ -	\$ 14,000.00	\$ 14,000.00
Fitness Classes Instructors		\$ -	\$ 5,500.00	\$ 5,500.00
<b>TOTAL MITIGATING FACTORS</b>		<b>\$ 27,500.00</b>	<b>\$ 123,700.00</b>	<b>\$ 151,200.00</b>
<b>TOTAL</b>		<b>\$ 168,114.00</b>	<b>\$ 116,950.00</b>	<b>\$ 285,064.00</b>
<b>SAFE START PHASE 1 FUNDS</b>				<b>\$ 329,800.00</b>

**DATE:** November 16, 2020

**REPORT NO:** WLFD-16-2020

**SUBJECT:** **Monthly Update October 2020**

**CONTACT:** Dennis Fisher, Fire Chief

**OVERVIEW:**

- This report will address October 2020 fire responses and activities.

**RECOMMENDATION:**

1. That, report WLFD-16-2020 regarding “Monthly Update – October 2020”, dated November 16, 2020, be received for information purposes

**ALIGNMENT TO STRATEGIC PLAN:**

**Theme # 5**

- Community Health and Safety – Fostering a safe community where residents can thrive throughout their lives.

**Theme # 6**

- Efficient, Fiscally Responsible Operations – maintaining a lean organization with innovative approaches and strong asset management.

**CURRENT SITUATION:**

**Emergency Response Calls – October 2020**

Station # 1 – 15    Station # 2 – 3    Pelham – 0

Incident	Call Time	Nature	District
2020-012531	20:50:23	200 - Fire Department Not Required	St # 1
2020-012463	4:18:32	41 - Mvc Extrication	St # 1 & 2
2020-012449	19:16:38	105 - Kitchen Fire	St # 1
2020-012435	12:06:56	114 - Remote Alarm From Security Company	St # 1

2020-012393	0:53:06	32 - Rubbish Or Miscellaneous Fire	St # 1
2020-012375	18:41:10	41 - Mvc Extrication	St # 1
2020-012369	15:39:13	4 - Mvc Unknown Extrication	St # 1
2020-012301	18:49:10	3 - Grass Fire	St # 1
2020-012277	18:04:23	116 - Ruptured/Damaged Gas Line	St # 1
2020-012241	19:25:13	112 - Detector Activation	St # 1
2020-011887	15:52:12	114 - Remote Alarm From Security Company	St # 1
2020-011658	20:45:03	33 - Burning Complaint	St # 1
2020-011640	13:28:52	41 - Mvc Extrication	St # 1
2020-011579	10:16:26	118 - Arcing Hydro Lines/Pole	St # 1
2020-011565	3:26:54	2 - Vehicle Fire	St # 1 & 2
2020-011529	8:41:02	54 - Vsa/Unconscious	St # 2
2020-011474	20:54:40	114 - Remote Alarm From Security Company	St # 1

#### District Legend:

Grimsby = GR, Pelham = PE, Haldimand = HD, Lincoln = L

**New Retirees** – Nothing to report

**New Recruits** – A recruitment drive is ongoing

**Promotion** - Nothing

#### Training

##### October 2020

Oct 7 - Water Supply – both stations

Oct 14 – SCBA – both stations

Oct 21 – Officers meeting / Thermo imaging camera – both stations

Oct 28 – Business meeting / Truck maintenance – both stations

Oct 31 – Live Fire – Grimsby training tower

### **November 2020**

Nov 4 – Auto Extrication – both stations

Nov 11 – Auto Extrication – both stations

Nov 18 – Officers meeting / Accountability – both stations

Nov 25 – Business meeting / Truck maintenance – both stations

- Training in larger groups has continued with social distancing and wearing of masks, when that can't be achieved.

**Fire Prevention** – Nothing to Report

**Apparatus Fleet** – Nothing to report

### **Fire Department Activities**

- Fire Department year-end was October 31, 2020. Station # 1 responded to 224 calls, station # 2 responded to 82 calls
- RFP for Architectural Design – Station # 2 New Hall was advertised November 7, 2020 with a closing date of November 27, 2020

**Prepared & Submitted by:**



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**Dennis Fisher**  
**Fire Chief / CEMC**

**Approved by:**



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**Bev Hendry, CAO**

**DATE:** November 16, 2020

**REPORT NO:** CAO-09-2020

**SUBJECT:** **Christmas Break Holiday Hours**

**CONTACT:** Bev Hendry, CAO

**OVERVIEW:**

This report will address the hours of operation during the Christmas Break for the Main Administration Office, the Public Works Yard and the Arena during the Christmas Break (December 24<sup>th</sup>, 2020 to January 1, 2021 inclusive).

**RECOMMENDATION:**

- (1) That, Report CAO-09-2020 dated November 16, 2020 regarding the “Christmas Break Holiday Hours”, be received; and,
- (2) That, the following Christmas Break Schedule be approved:
  - (a) That, the Main Administration Office be closed on December 29<sup>th</sup>, 30<sup>th</sup> & 31<sup>st</sup>, 2020 (office closed for the period between December 24<sup>th</sup>, 2020 to and including January 1<sup>st</sup>, 2021); and,
  - (b) That, the Public Works Yard remain open on December 29<sup>th</sup>, 30<sup>th</sup> & 31<sup>st</sup>, 2020; and,
  - (c) That the Arena remain open, subject to program scheduling, from December 24<sup>th</sup>, 2020 to January 1<sup>st</sup>, 2021 inclusive, with the exception of December 25<sup>th</sup>, 2020.

**ALIGNMENT TO STRATEGIC PLAN:**

Not applicable to this report.

**BACKGROUND:**

Each year, the Main Administration Office is closed between December 24<sup>th</sup> to and including January 1<sup>st</sup> with the Public Works Yard remaining open during the time period following Boxing Day (December 26 to be observed on December 28) to and including December 31<sup>st</sup>, and the Arena also remaining open, subject to program scheduling, from December 24<sup>th</sup> to January 1<sup>st</sup> inclusive, with the exception of December 25<sup>th</sup>.



**CURRENT SITUATION:**

As in past years, staff is recommending that the Main Administration Office be closed on December 29<sup>th</sup>, 30<sup>th</sup> and 31<sup>st</sup>, 2020. Historically this request has been approved by Council as there has been very little activity at the Main Administration Office during this time period. Regular hours of operation for the main office will resume on Monday, January 4<sup>th</sup>, 2021. All other operations, including the Arena and Public Works, will remain status quo over the Christmas Break. The Arena will remain open, subject to program scheduling.

**FINANCIAL IMPLICATIONS:**

There are no financial implications to the municipality with respect to the closure of the Township Office during the 2020 Christmas Break as employees will use either a vacation day, lieu day, take the time off without pay or borrow from next year's vacation.

**INTER-DEPARTMENTAL COMMENTS:**

The issue of closing the Main Administration Office over the Christmas Break has been reviewed with Senior Management.

**CONCLUSION:**

Staff recommends that the Main Administration Office be closed on December 29<sup>th</sup>, 30<sup>th</sup>, and December 31<sup>st</sup>, 2020; and, that the Public Works Yard remain open on these days and that the Arena remain open subject to program scheduling from December 24<sup>th</sup>, 2020 to January 1, 2021 inclusive with the exception of December 25<sup>th</sup>, 2020, be approved.


**Prepared & Submitted by:**



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**Joanne Scime, Clerk**

**Approved by:**



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**Bev Hendry, CAO**

## SCHEDULE A to Report CAO-09-2020

### PROPOSED CHRISTMAS BREAK HOLIDAY HOURS

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4	5
6	7 6:30 p.m. - All Standing Committees incl. Public Mtgs under Planning Act	8	9	10	11	12
13	14 7:00 p.m. - Council	15	16	17	18	19
20	21	22	23	24 Main Office & Public Works Closed per Collective Agreement * Arena Open	25 <b>XMAS DAY</b> (STAT) All facil. Closed including Arena	26
27	28 <b>BOXING DAY</b> (STAT) Main Office & Public Works Closed * Arena Open	29 Main Office Closed Public Works Open * Arena Open	30 Main Office Closed Public Works Open * Arena Open	31 Main Office Closed Public Works Open * Arena Open		

\*Arena open subject to Bookings

## JANUARY 2021 HOLIDAY HOURS

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1 <b>NEW YEARS DAY</b> (STAT) Main Office & Public Works Closed * Arena Open	2
3	4  Main Office, Public Works & Arena - Open	5	6	7	8	9
10	11  6:30 p.m. – Plan/Bldg/Envir	12	13	14	15	16
17	18  6:30 p.m. – Admin/Fin/Fire PW/Rec/Arena	19	20	21	22	23
24/31	25  7:00 p.m. - Council	26	27	28	29	30

From: Fred Vrugteveen <fred@niagarapallet.ca>  
Date: November 6, 2020 at 10:01:16 AM EST  
To: Dave Bylsma <dbylsma@westlincoln.ca>, Mike Rehner <mrehner@westlincoln.ca>, Jason Trombetta <jtrombetta@westlincoln.ca>, Christopher Coady <ccoady@westlincoln.ca>, Harold Jonker <hjonker@westlincoln.ca>, Cheryl Ganann <cganann@westlincoln.ca>, William Reilly <wreilly@westlincoln.ca>  
Cc: Albert Witteveen; Beverly Hendry <bhendry@westlincoln.ca>  
Subject: Niagara Pallet

Good Morning Mayor Dave and members of Council of the Township of West Lincoln

I hope you are doing well today! Thank you for your ongoing work in leading our Township.

I am sending you a quick note with the attached statement that I have been receiving monthly for some time now. This email is long overdue and I apologize for taking so long to send this.

As a business owner, property owner, tax payer and donor in our community I am offended by the township requesting interest for late payment of fees for peer reviews on our site plan agreement. I have brought this issue up with staff who have indicated that my request must be sent to council. I kindly request that this amount be forgiven as I do not feel that the township policy should give businesses such as a longer interest free period to vet invoices that we receive from the township to confirm that the amounts due are valid. I recommend that when interest is going to be charged for late payment of such a fee it should not be charged until the business has had at least 90/120 days to pay the outstanding amount.

Thank you,  
Fred Vrugteveen  
[www.niagarapallet.ca](http://www.niagarapallet.ca)  
905-386-7543 Ext. 22

Township of West Lincoln  
318 Canborough Street  
P.O. Box 400  
Smithville Ontario L0R 2A0  
(905) 957-3346 Ext. 6002

## STATEMENT

Date:	2020-07-03
Account:	NIAGA0017

Amount Paid:

Customer ID: NIAGA0017

NIAGARA PALLET  
NIAGARA PALLET & RECYCLERS  
FRED VRUGTEVEEN  
P.O. BOX 910  
SMITHVILLE ON L0R 2A0

Credit Limit: Unlimited  
Payment Terms: Net 30  
Finance Charge APR: 15.00%  
Deposits Received: \$0.00

^Please return this portion with your payment^

Document No.	Date	Code	Description	Amount	Balance
	2020-06-01	BBF		\$137.37	\$137.37
				<b>Amount Due:</b>	<b>\$137.37</b>

Current	0-30 Days	31 - 60 Days	61 and Over
\$0.00	\$0.00	\$0.00	\$137.37

Interest is charged on outstanding amounts over 30 days at a rate of 1.25% per month.

Codes: SLS = Sales / Invoices  
SCH = Scheduled Payments  
DR = Debit Notes

FIN = Finance Charges  
SVC = Service / Repairs  
WRN = Warranties

CR = Credit Notes  
RTN = Returns  
PMT = Payments

**DATE:** November 16, 2020  
**REPORT NO:** T-25-2020  
**SUBJECT:** 2020 Water and Wastewater Rate Study and Financial Plan  
**CONTACT:** Donna DeFilippis, Director of Finance

**OVERVIEW:**

- The Township is required to prepare and submit an updated Water System Financial Plan to meet the requirements of the Drinking Water Quality Management System as defined under O.Reg.453/07 for renewal of its water distribution system license.
- Along with the Financial Plan, a Water and Wastewater Rate Study has also been completed
- Water and Bulk Water fees are projected to increase by 5% annually, over the years of 2021 to 2025
- Wastewater rates are projected to increase by 5% in 2021 and by 4% annually over the years 2022 to 2025.

**RECOMMENDATION:**

1. That, Report T-25-2020, dated November 16, 2020 regarding the “Water & Wastewater Systems Rate Study and Financial Plan” be received; and,
2. That the Water & Wastewater Systems Rate Study and Financial Plan No. 077-301, as attached to this report, prepared by Watson and Associates Economists Ltd. be accepted, and,
3. That the Water & Wastewater Systems Rate Structure and Rates recommended in the report prepared by Watson and Associates Economists Ltd. be approved, and,
4. That the 10-year financial plan, as required by the Safe Drinking Water Act Regulation (O.Reg. 453/07) as outlined in the report attached. be approved.

**ALIGNMENT TO STRATEGIC PLAN:**

**Theme #6**

- Efficient, Fiscally Responsible Operations- the Township of West Lincoln is a lean organization that uses sustainable, innovative approaches and partnerships to streamline processes, deliver services and manage infrastructure assets.

**BACKGROUND:**

Regulation (O. Reg. 453/07) under the Safe Drinking Water Act (SDWA) puts in place requirements for Financial Plans for municipal drinking water systems as a pre-requisite

for a drinking water licence. The Township's current Municipal Drinking Water License will expire on June 9, 2021. The new license, once approved, will be in effect for six years. The license renewal package, including the Financial Plan, is to be submitted 6 months prior to the license expiry date.

The O.Reg. 453/07 provides details with regards to the Financial Plans for existing water systems. The requirements for existing systems are summarized as follows:

- Must indicate financial viability of the system
- Must be approved by resolution of Council (or governing body)
- Must apply to a period of at least six years (commencing the year of license expiry)
- Details of the proposed or projected financial position
- Details of the proposed or projected financial operations
- Details of the proposed or projected gross cash receipts and gross cash payments
- Financial plans applicable to two or more solely-owned drinking water systems can be prepared as if they are for one drinking water system
- Financial plans are to be made available to the public upon request and at no charge
- Made available to the public through publication on the internet
- Notice of availability to be given to the public
- Submitted to the Ministry of Municipal Affairs and Housing

The Smithville water distribution system is supplied by the Region of Niagara via a connection to the Grimsby Water Treatment Plant. Water is distributed via a system that consists of approximately 30 km of watermains. Storage is provided in the Region-owned storage facility. Wastewater is discharged to the Region System at the Smithville Pumping Station which then discharges to the Baker Road Treatment Plant.

The Region's annual charges to the Township for water and wastewater treatment services comprise a significant portion of the annual cost of service for each system. The Township currently recovers water and wastewater system costs from various direct user fees and administrative charges, and from billings to customers through a base and volumetric charge based on water consumed.

### **CURRENT SITUATION:**

Watson and Associates Economists Ltd (Watson) were the successful proponents to the Request for Proposal(RFP) issued by the Township. Staff from Watson and Associates worked closely with the following staff members: Manager of Operations, Coordinator of Engineering Services, Director of Public Works and Recreation and the Treasure/Director of Finance.

Township staff provided Watson with data such as Capital Plans, Growth Forecasts, Operating Budgets, Asset Inventory, Customers, Consumption, Reserves and Development Charges. Several meeting were held with staff to discuss the draft reports. In addition, a Special Council Meeting was held to educate the Members of Council on the various Provincial Regulations that impact Water Licenses as well as an overview of rates and financial plans.

Attached to this report are two documents: Rate Study Report and 2020 Water Financial Plan. The detailed technical appendix (the asset inventory details) has not been included with this report due to its size.

There will be no change to the current rate structure which is based on a constant volumetric charge and a base charge. This rate structure is the most commonly used in Ontario. Rates are projected to increase 5% annually for the years 2021 to 2025 for Water and 5% in 2021 and 4% in the years 2022 to 2025 for Wastewater. The charts below summarize the proposed rates outlined in the study. 1 cubic meter is equivalent to 1,000 litres.

**Water Rates based on an annual consumption of 161 cubic meters and a 3/4 or 5/8 water meter:**

Description	2020	2021	2022	2023	2024	2025
Quarterly Base Charge (Jan-June)	\$37.60	\$39.48	\$41.45	\$43.53	\$45.70	\$47.99
Quarterly Base Charge (July-Dec)	\$39.48	\$41.45	\$43.53	\$45.70	\$47.99	\$50.39
Constant Rate (m <sup>3</sup> ) - January to June	\$1.34	\$1.41	\$1.48	\$1.55	\$1.63	\$1.71
Constant Rate (m <sup>3</sup> ) - July to December	\$1.41	\$1.48	\$1.55	\$1.63	\$1.71	\$1.80
<b>Annual Base Charge Bill</b>	<b>\$154.16</b>	<b>\$161.87</b>	<b>\$169.96</b>	<b>\$178.46</b>	<b>\$187.38</b>	<b>\$196.75</b>
January to June Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5
July to December Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5
<b>Annual Volume Bill</b>	<b>\$221.38</b>	<b>\$232.69</b>	<b>\$244.32</b>	<b>\$256.54</b>	<b>\$269.36</b>	<b>\$282.83</b>
<b>Total Annual Bill</b>	<b>\$375.54</b>	<b>\$394.55</b>	<b>\$414.28</b>	<b>\$434.99</b>	<b>\$456.74</b>	<b>\$479.58</b>
% Increase - Base Rate		5%	5%	5%	5%	5%
% Increase - Volume Rate		5%	5%	5%	5%	5%
% Increase - Total Annual Bill		5%	5%	5%	5%	5%

**Wastewater Rates based on an annual consumption of 161 cubic meters and a 3/4 or 5/8 water meter:**

Description	2020	2021	2022	2023	2024	2025
Quarterly Base Charge (Jan-June)	\$86.68	\$91.01	\$95.56	\$100.34	\$105.36	\$110.62
Quarterly Base Charge (July-Dec)	\$91.01	\$95.56	\$100.34	\$105.36	\$110.62	\$116.15
Constant Rate (m <sup>3</sup> ) - January to June	\$1.73	\$1.82	\$1.86	\$1.89	\$1.93	\$1.97
Constant Rate (m <sup>3</sup> ) - July to December	\$1.82	\$1.86	\$1.89	\$1.93	\$1.97	\$2.01
<b>Annual Base Rate Bill</b>	<b>\$355.38</b>	<b>\$373.14</b>	<b>\$391.80</b>	<b>\$411.39</b>	<b>\$431.96</b>	<b>\$453.56</b>
January to June Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5
July to December Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5
<b>Annual Volume Bill</b>	<b>\$285.78</b>	<b>\$295.95</b>	<b>\$301.87</b>	<b>\$307.91</b>	<b>\$314.06</b>	<b>\$320.35</b>
<b>Total Annual Bill</b>	<b>\$641.16</b>	<b>\$669.09</b>	<b>\$693.67</b>	<b>\$719.29</b>	<b>\$746.02</b>	<b>\$773.90</b>
% Increase - Base Rate		5%	5%	5%	5%	5%
% Increase - Volume Rate		5%	2%	2%	2%	2%
% Increase - Total Annual Bill		5%	4%	4%	4%	4%



**Bulk Water Rates per Cubic Meter:**

Bulk Water Rate	2020	2021	2022	2023	2024	2025
Constant Rate (m <sup>3</sup> ) - January to June	\$1.81	\$1.90	\$2.00	\$2.10	\$2.21	\$2.32
Constant Rate (m <sup>3</sup> ) - July to December	\$1.90	\$2.00	\$2.10	\$2.21	\$2.32	\$2.44
% Increase - Volume Rate		5%	5%	5%	5%	5%

The chart below outlines the impacts to a typical residential water/wastewater customer:

Quarterly Water Bill							
Based on an average consumption of 40.25 cubic meters per quarter, or 161 cubic meters annually							
		Jul-20	Jul-21	Jul-22	Jul-23	Jul-24	Jul-25
Water Consumptive		\$ 56.75	\$ 59.57	\$ 62.39	\$ 65.61	\$ 68.83	\$ 72.45
Sewer Consumptive		\$ 73.26	\$ 74.87	\$ 76.07	\$ 77.68	\$ 79.29	\$ 80.90
Water Base		\$ 39.48	\$ 41.45	\$ 43.53	\$ 45.70	\$ 47.99	\$ 50.39
Sewer Base		\$ 91.01	\$ 95.56	\$100.34	\$105.36	\$110.62	\$ 116.15
<b>Total</b>		<b>\$260.50</b>	<b>\$271.45</b>	<b>\$282.33</b>	<b>\$294.35</b>	<b>\$306.73</b>	<b>\$ 319.89</b>

The July 2021 quarterly bill of \$271.45 based on 40.25 cubic meters would equate to a price of \$0 .006 per litre. To put this in perspective, a half-litre water bottle is often sold in retail stores at a price of \$2.00.

**FINANCIAL IMPLICATIONS:**

The Water and Wastewater Rate Study is recommending a rate structure that will recover the full cost of delivering water and wastewater services and will ensure that the systems are sustainable. This plan ensures that adequate reserves are maintained to fund the required infrastructure renewal.

There are two items to note from the Water Financial Plan:

- The Water Development Charge Reserve Fund is anticipated to fall into a negative balance over the years 2023 to 2029. This will require internal borrowing from other reserves with reimbursement made from future Development Charges collected.
- Included in the Financial Plan is the issuance of debt in order to complete capital projects. It is anticipated that the debt would be issued in 2023 (\$726,974) and in 2024 (\$369,500). Principal payments over 2024 to 2030 total \$290,880 and interest payments over the same period of time is projected at \$211,606.

**INTER-DEPARTMENTAL COMMENTS:**

The attached rate study and water financial plan was a collaboration between Finance and Public Works staff.

**CONCLUSION:**

It is being recommended that Council accept and approve the Water and Wastewater Rate Study & Water Financial Plan No. 077-301 prepared by Watson and Associates Economists Ltd.

**Prepared & Submitted by:**



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**Donna DeFilippis, Director of Finance**

**Approved by:**



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**Bev Hendry, CAO**



# Water and Wastewater Rate Study

## Township of West Lincoln

November 10, 2020

Watson & Associates Economists Ltd.  
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## List of Acronyms and Abbreviations

Acronym	Full Description of Acronym
A.M.O.	Association of Municipalities of Ontario
C.W.W.F.	Clean Water and Wastewater Fund
D.C.A.	Development Charges Act, 1997
F.I.R.	Financial Information Return
I.J.P.A.	Infrastructure for Jobs and Prosperity Act, 2015
I.O.	Infrastructure Ontario
LPAT	Local Planning Appeal Tribunal
M.O.E.	Ministry of Environment
O.C.I.F.	Ontario Community Infrastructure Fund
O.M.B.	Ontario Municipal Board
O.Reg.	Ontario Regulation
O.S.I.F.A.	Ontario Strategic Infrastructure Financing Authority
P.S.A.B.	Public Sector Accounting Board
P.T.I.F.	Public Transit Infrastructure Fund
S.W.S.S.A.	Sustainable Water and Sewage Systems Act, 2002



# Executive Summary



## Executive Summary

The Township of West Lincoln retained Watson & Associates Economists Ltd. (Watson) to undertake a water and wastewater rate study. This study aims to analyse capital and operating forecasts, costing for lifecycle requirements, current volumes and customer profiles. The results of this analysis provide updated water and wastewater base charges and volume rates for customers within the Township of West Lincoln. The rate analysis contained herein continues to provide fiscally responsible practices that are in line with current provincial legislation at a level of rate increases that are reasonable.

The analysis presented herein provides the following:

- The 2021 to 2030 capital spending program for water and wastewater is \$9.16 million and \$3.27 million (inflated), respectively;
- Expenditures related to the purchase of treated water and wastewater treatment from Niagara Region have been increased by 5% annually. Additionally, the volumes associated with new customers have also been added as purchased amounts required from the Region;
- The operating expenditures related to salaries have been assumed to increase by 2% annually. Additionally, the Township has indicated the need to add one new water/wastewater staff for 2021 and another in 2024. Their salaries have been added to the forecast and split between water and wastewater;
- The operating expenditures related to fuel and hydro have been increased at 5% per annum, while all other operating expenditures are assumed to increase by 3% per annum;
- The current rate structure (quarterly base charge and a constant volume rate) for both water and wastewater is continued;
- Existing customers total 2,437 for water and 2,426 for wastewater;
- New water and wastewater customers are forecasted to increase by 1,217 customers over the forecast period.

Based on the above information, rate increases for the Township's water system has been calculated with an annual increase of 5% to the base charges and volume rate (including bulk water).

For wastewater, the base charges are proposed to increase at 5% per year over the forecast period while the volume rate has been calculated to increase at 5% for 2021





and 2% per year from 2022 to 2030. This provides for a 5% increase to the wastewater bill for 2021 and 4% annually thereafter.

Table ES-1 summarizes the recommended water rates and average annual bill (assuming an annual volume of 161 m<sup>3</sup>) for customers based on the analysis provided herein over the forecast period.

Table ES-2 summarizes the recommended bulk water rates.

Table ES-3 summarizes the recommended wastewater rates and average annual bill (assuming an annual volume of 161 m<sup>3</sup>) for customers based on the analysis provided herein over the forecast period.



Table ES-1  
Township of West Lincoln  
Annual Customer Water Bill – Based on 161 m<sup>3</sup> of usage and 5/8" or 3/4" meter

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Quarterly Base Charge (Jan-June)	\$37.60	\$39.48	\$41.45	\$43.53	\$45.70	\$47.99	\$50.39	\$52.91	\$55.55	\$58.33	\$61.25
Quarterly Base Charge (July-Dec)	\$39.48	\$41.45	\$43.53	\$45.70	\$47.99	\$50.39	\$52.91	\$55.55	\$58.33	\$61.25	\$64.31
Constant Rate (m <sup>3</sup> ) - January to June	\$1.34	\$1.41	\$1.48	\$1.55	\$1.63	\$1.71	\$1.80	\$1.89	\$1.98	\$2.08	\$2.19
Constant Rate (m <sup>3</sup> ) - July to December	\$1.41	\$1.48	\$1.55	\$1.63	\$1.71	\$1.80	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30
<b>Annual Base Charge Bill</b>	<b>\$154.16</b>	<b>\$161.87</b>	<b>\$169.96</b>	<b>\$178.46</b>	<b>\$187.38</b>	<b>\$196.75</b>	<b>\$206.59</b>	<b>\$216.92</b>	<b>\$227.76</b>	<b>\$239.15</b>	<b>\$251.11</b>
January to June Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
July to December Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
<b>Annual Volume Bill</b>	<b>\$221.38</b>	<b>\$232.69</b>	<b>\$244.32</b>	<b>\$256.54</b>	<b>\$269.36</b>	<b>\$282.83</b>	<b>\$296.97</b>	<b>\$311.82</b>	<b>\$327.41</b>	<b>\$343.78</b>	<b>\$360.97</b>
<b>Total Annual Bill</b>	<b>\$375.54</b>	<b>\$394.55</b>	<b>\$414.28</b>	<b>\$434.99</b>	<b>\$456.74</b>	<b>\$479.58</b>	<b>\$503.56</b>	<b>\$528.74</b>	<b>\$555.18</b>	<b>\$582.93</b>	<b>\$612.08</b>
% Increase - Base Rate		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
% Increase - Volume Rate		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
% Increase - Total Annual Bill		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

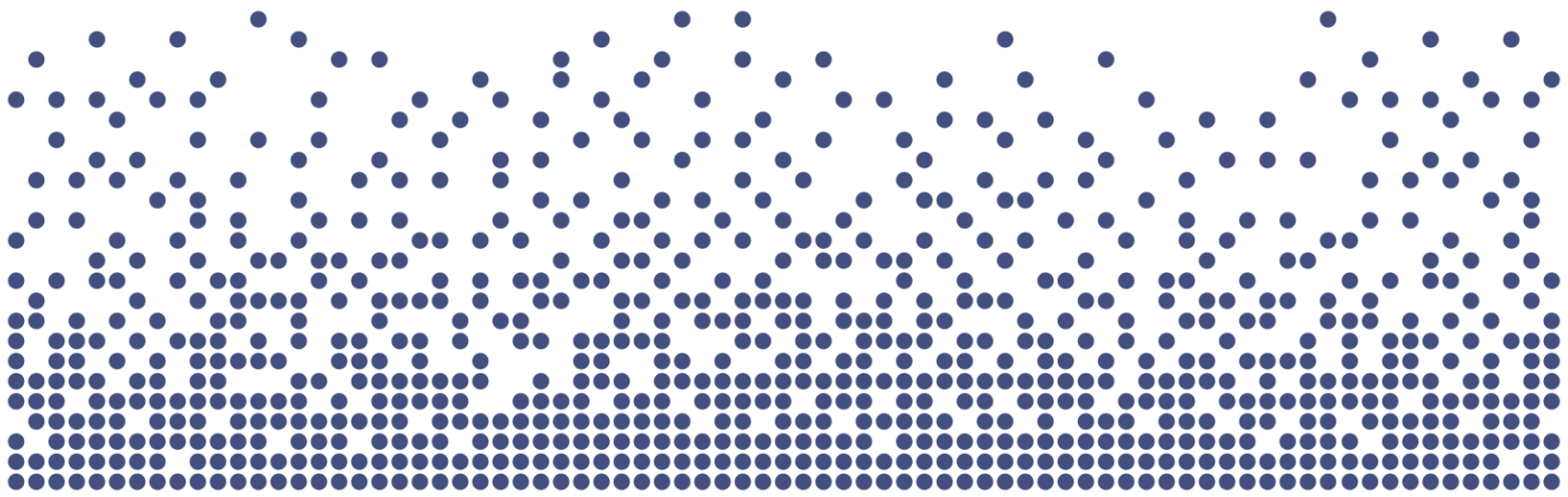
Table ES-2  
Township of West Lincoln  
Bulk Water Rates

Bulk Water Rate	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Constant Rate (m <sup>3</sup> ) - January to June	\$1.81	\$1.90	\$2.00	\$2.10	\$2.21	\$2.32	\$2.44	\$2.56	\$2.69	\$2.82	\$2.96
Constant Rate (m <sup>3</sup> ) - July to December	\$1.90	\$2.00	\$2.10	\$2.21	\$2.32	\$2.44	\$2.56	\$2.69	\$2.82	\$2.96	\$3.11
% Increase - Volume Rate		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%



Table ES-3  
Township of West Lincoln  
Annual Customer Wastewater Bill – Based on 161 m<sup>3</sup> of usage and 5/8" or 3/4" meter

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Quarterly Base Charge (Jan-June)	\$86.68	\$91.01	\$95.56	\$100.34	\$105.36	\$110.62	\$116.15	\$121.96	\$128.06	\$134.46	\$141.19
Quarterly Base Charge (July-Dec)	\$91.01	\$95.56	\$100.34	\$105.36	\$110.62	\$116.15	\$121.96	\$128.06	\$134.46	\$141.19	\$148.25
Constant Rate (m <sup>3</sup> ) - January to June	\$1.73	\$1.82	\$1.86	\$1.89	\$1.93	\$1.97	\$2.01	\$2.05	\$2.09	\$2.13	\$2.18
Constant Rate (m <sup>3</sup> ) - July to December	\$1.82	\$1.86	\$1.89	\$1.93	\$1.97	\$2.01	\$2.05	\$2.09	\$2.13	\$2.18	\$2.22
<b>Annual Base Rate Bill</b>	<b>\$355.38</b>	<b>\$373.14</b>	<b>\$391.80</b>	<b>\$411.39</b>	<b>\$431.96</b>	<b>\$453.56</b>	<b>\$476.23</b>	<b>\$500.04</b>	<b>\$525.05</b>	<b>\$551.30</b>	<b>\$578.86</b>
January to June Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
July to December Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
<b>Annual Volume Bill</b>	<b>\$285.78</b>	<b>\$295.95</b>	<b>\$301.87</b>	<b>\$307.91</b>	<b>\$314.06</b>	<b>\$320.35</b>	<b>\$326.75</b>	<b>\$333.29</b>	<b>\$339.95</b>	<b>\$346.75</b>	<b>\$353.69</b>
<b>Total Annual Bill</b>	<b>\$641.16</b>	<b>\$669.09</b>	<b>\$693.67</b>	<b>\$719.29</b>	<b>\$746.02</b>	<b>\$773.90</b>	<b>\$802.99</b>	<b>\$833.33</b>	<b>\$865.00</b>	<b>\$898.05</b>	<b>\$932.55</b>
% Increase - Base Rate		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
% Increase - Volume Rate		5%	2%	2%	2%	2%	2%	2%	2%	2%	2%
% Increase - Total Annual Bill		5%	4%	4%	4%	4%	4%	4%	4%	4%	4%



# Report



# Chapter 1

## Introduction



# 1. Introduction

## 1.1 Background

The Township of West Lincoln currently services 2,437 metered water customers and 2,426 wastewater customers. The Township's water comes from the Smithville water distribution system and is supplied via a connection to the Grimsby Water Treatment Plant, which is owned by the Region of Niagara.

The water and wastewater systems are metered and utilize rate structures with a quarterly base charge as well as a volume charge on a per cubic metre basis. The Township also provides bulk water services on a per cubic metre basis charge. Table 1-1 provides the existing rates currently in effect, as of July 1, 2020.

Table 1-1  
Township of West Lincoln  
Water and Wastewater Rates – 2020

2020 - Water Billing Rates			2020 - Wastewater Billing Rates		
Base Charge - Per quarter			Base Charge - Per quarter		
5/8"		39.48	5/8"		91.01
3/4"		39.48	3/4"		91.01
1"		98.69	1"		227.54
1 1/4"		148.03	1 1/4"		341.29
1 1/2"		197.38	1 1/2"		455.07
2"		315.80	2"		728.09
3"		631.61	3"		1,456.19
4"		986.90	4"		2,275.29
6"		1,973.77	6"		4,550.58
8"		3,158.03	8"		7,280.93
Volume Charge			Volume Charge		
\$	1.410	per m <sup>3</sup>	\$	1.820	per m <sup>3</sup>
Volume Charge (Bulk Water)					
\$	1.900	per m <sup>3</sup>			

With the legislative changes being made across Ontario as a result of the Walkerton crisis, municipalities will be required to conform to new statutes governing the management of water and wastewater systems. Watson & Associates Economists Ltd. (Watson) was retained by the Township of West Lincoln to assist in addressing these changes in a proactive manner as they relate to the water and wastewater systems. The assessment provided herein addresses changes recommended to the water and



wastewater rates based on the most current information and forecasts the implications over the next ten-year period.

## 1.2 Study Process

---

The objectives of the study and the steps involved in carrying out this assignment are summarized below:

- Identify all current and future water and wastewater system capital needs to assess the immediate and longer-term implications;
- Identify potential methods of cost recovery from the capital needs listing. These recovery methods may include other statutory authorities (e.g. *Development Charges Act, 1997* (D.C.A.), *Municipal Act*, etc.) as an offset to recovery through the water and wastewater rates;
- Identify existing operating costs by component and estimate future operating costs over the next ten years. This assessment identifies fixed and variable costs in order to project those costs sensitive to changes to the existing infrastructure inventory, as well as costs which may increase commensurate with growth; and
- Provide staff and Committee/Council the findings to assist in gaining approval of the rates for 2021 and future years.

## 1.3 Regulatory Changes in Ontario

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Resulting from the water crisis in Walkerton, significant regulatory changes have been made in Ontario. These changes arise as a result of the Walkerton Commission and the 93 recommendations made by the Walkerton Inquiry Part II report. Areas of recommendation include:

- watershed management and source protection;
- quality management;
- preventative maintenance;
- research and development;
- new performance standards;
- sustainable asset management; and
- lifecycle costing.



The legislation which would have most impacted municipal water and wastewater rates was the *Sustainable Water and Sewage Systems Act* (S.W.S.S.A.) which would have required municipalities to implement full cost pricing. The legislation was enacted in 2002, however, it had not been implemented pending the approval of its regulations. The Act was repealed as of January 1, 2013. It is expected that the provisions of the *Water Opportunities Act* will implement the fundamental requirements of S.W.S.S.A. Furthermore, on December 27, 2017, O.Reg. 588/17 was released under the *Infrastructure for Jobs and Prosperity Act, 2015* (I.J.P.A.), which outlines the requirements for asset management for municipalities. The results of the asset management review under this Act will need to be considered in light of the recent investments undertaken by the Township and the capital spending plan provided herein. The following sections describe these various resulting changes.

## 1.4 Sustainable Water and Sewage Systems Act

---

As noted earlier, the S.W.S.S.A. was passed on December 13, 2002. The intent of the Act was to introduce the requirement for municipalities to undertake an assessment of the “full cost” of providing their water and wastewater services. It is noted, however, that this Act has been repealed. To provide broader context and understanding to other legislation discussed herein, a description of the Act is provided below.

Full costs for water service was defined in subsection 3(7) of the Act and included “...source protection costs, operating costs, financing costs, renewal and replacement costs and improvement costs associated with extracting, treating or distributing water to the public and such other costs which may be specified by regulation.” Similar provisions were made for wastewater services in subsection 4(7) with respect to “...collecting, treating or discharging waste water.”

The Act would have required the preparation of two reports for submission to the Ministry of the Environment (or such other member of the Executive Council as may be assigned the administration of this Act under the *Executive Council Act*). The first report was on the “full cost of services” and the second was the “cost recovery plan.” Once these reports were reviewed and approved by the Ministry, the municipality would have been required to implement the plans within a specified time period.

In regard to the **full cost of services** report, the municipality (deemed a regulated entity under the Act) would prepare and approve a report concerning the provision of water





and sewage services. This report was to include an inventory of the infrastructure, a management plan providing for the long-term integrity of the systems, and would address the full cost of providing the services (other matters may be specified by the regulations) along with the revenue obtained to provide them. A professional engineer would certify the inventory and management plan portion of the report. The municipality's auditor would be required to provide a written opinion on the report. The report was to be approved by the municipality and then be forwarded to the Ministry along with the engineer's certification and the auditor's opinion. The regulations would stipulate the timing for this report.

The second report was referred to as a **cost recovery plan** and would address how the municipality intended to pay for the full costs of providing the service. The regulations were to specify limitations on what sources of revenue the municipality may use. The regulations may have also provided limits as to the level of increases any customer or class of customer may experience over any period of time. Provision was made for the municipality to implement increases above these limits; however, ministerial approval would be required first. Similar to the first report, the municipal auditor would provide a written opinion on the report prior to Council's adoption, and this opinion must accompany the report when submitted to the Province.

The Act provided the Minister the power to approve or not approve the plans. If the Minister was not satisfied with the report or if a municipality did not submit a plan, the Minister may have a plan prepared. The cost to the Crown for preparing the plan would be recovered from the municipality. As well, the Minister may direct two or more regulated municipalities to prepare a joint plan. This joint plan may be directed at the onset or be directed by the Minister after receiving the individual plans from the municipalities.

The Minister also had the power to order a municipality to generate revenue from a specific revenue source or in a specified manner. The Minister may have also ordered a regulated entity to do or refrain from doing such things as the Minister considered advisable to ensure that the entity pays the full cost of providing the services to the public.

Once the plans were approved and in place, the municipality would be required to submit progress reports. The timing of these reports and the information to be contained therein would be established by the regulations. A municipal auditor's



opinion must be provided with the progress report. Municipalities would also revise the plans if they deem the estimate does not reflect the full cost of providing the services, as a result of a change in circumstances, regulatory or other changes that affect their plan, etc. The municipality would then revise its prior plan, provide an auditor's opinion, and submit the plan to the Minister.

## 1.5 Financial Plans Regulation

---

On August 16, 2007, the M.O.E. passed O.Reg 453/07 which requires the preparation of financial plans for water (and wastewater) systems. The M.O.E. has also provided a Financial Plan Guidance Document to assist in preparing the plans. A brief summary of the key elements of the regulation is provided below:

- The financial plan will represent one of the key elements for the municipality to obtain its Drinking Water Licence;
- The financial plans shall be for a period of at least six years, but longer planning horizons are encouraged;
- As the regulation is under the *Safe Drinking Water Act, 2002*, the preparation of the plan is mandatory for water and encouraged for wastewater;
- The plan is considered a living document (i.e. will be updated as annual budgets are prepared) but will need to be undertaken, at a minimum, every five years;
- The plans generally require the forecasting of capital, operating and reserve fund positions, providing detailed inventories, forecasting future users and volume usage and corresponding calculation of rates. In addition, P.S.A.B. information on the system must be provided for each year of the forecast (i.e. total non-financial assets, tangible capital asset acquisitions, tangible capital asset construction, betterments, write-downs, disposals, total liabilities and net debt);
- The financial plans must be made available to the public (at no charge) upon request and be available on the municipality's website. The availability of this information must also be advertised; and
- The financial plans are to be approved by Resolution of the Council or governing body indicating that the drinking water system is financially viable.

In general, the financial principles of the draft regulations follow the intent of S.W.S.S.A. to move municipalities towards financial sustainability. Many of the prescriptive



requirements, however, have been removed (e.g. preparation of two separate documents for provincial approval, auditor opinions, engineer certifications, etc.).

A Guideline (“Towards Financially Sustainable Drinking Shores – Water and Wastewater Systems”) had been developed to assist municipalities in understanding the Province’s direction and provided a detailed discussion on possible approaches to sustainability. The Province’s Principles of Financially Sustainable Water and Wastewater Services are provided below:

Principle #1: Ongoing public engagement and transparency can build support for, and confidence in, financial plans and the system(s) to which they relate.

Principle #2: An integrated approach to planning among water, wastewater, and stormwater systems is desirable given the inherent relationship among these services.

Principle #3: Revenues collected for the provision of water and wastewater services should ultimately be used to meet the needs of those services.

Principle #4: Lifecycle planning with mid-course corrections is preferable to planning over the short term, or not planning at all.

Principle #5: An asset management plan is a key input to the development of a financial plan.

Principle #6: A sustainable level of revenue allows for reliable service that meets or exceeds environmental protection standards, while providing sufficient resources for future rehabilitation and replacement needs.

Principle #7: Ensuring users pay for the services they are provided leads to equitable outcomes and can improve conservation. In general, metering and the use of rates can help ensure users pay for services received.

Principle #8: Financial plans are “living” documents that require continuous improvement. Comparing the accuracy of financial projections with actual results can lead to improved planning in the future.



Principle #9: Financial plans benefit from the close collaboration of various groups, including engineers, accountants, auditors, utility staff, and municipal Council.

## 1.6 Water Opportunities Act, 2010

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As noted earlier, since the passage of the *Safe Drinking Water Act, 2002*, continuing changes and refinements to the legislation have been introduced. Some of these Bills have found their way into law, while others have not been approved. The *Water Opportunities Act, 2010*, was introduced into legislation on May 18, 2010 and received Royal Assent on November 29, 2010.

The Act provides for the following elements:

- The fostering of innovative water, wastewater and stormwater technologies, services and practices in the private and public sectors;
- Preparation of water conservation plans to achieve water conservation targets established by the regulations; and
- Preparation of sustainability plans for municipal water services, municipal wastewater services and municipal stormwater services.

With regard to the sustainability plans:

- The Act extends from the water financial plans and requires a more detailed review of the water financial plan and requires a full plan for wastewater and stormwater services; and
- Regulations will provide performance targets for each service – these targets may vary based on the jurisdiction of the regulated entity or the class of entity.

The financial plan shall include:

- An asset management plan for the physical infrastructure;
- A financial plan;
- For water, a water conservation plan;
- An assessment of risks that may interfere with the future delivery of the municipal service, including, if required by the regulations, the risks posed by climate change and a plan to deal with those risks; and



- Strategies for maintaining and improving the municipal service, including strategies to ensure the municipal service can satisfy future demand, consider technologies, services and practices that promote the efficient use of water and reduce negative impacts on Ontario's water resources, and increase co-operation with other municipal service providers.

Performance indicators will be established by service, with the following considerations:

- May relate to the financing, operation or maintenance of a municipal service or to any other matter in respect of what information may be required to be included in a plan;
- May be different for different municipal service providers or for municipal services in different areas of the Province.

Regulations will prescribe:

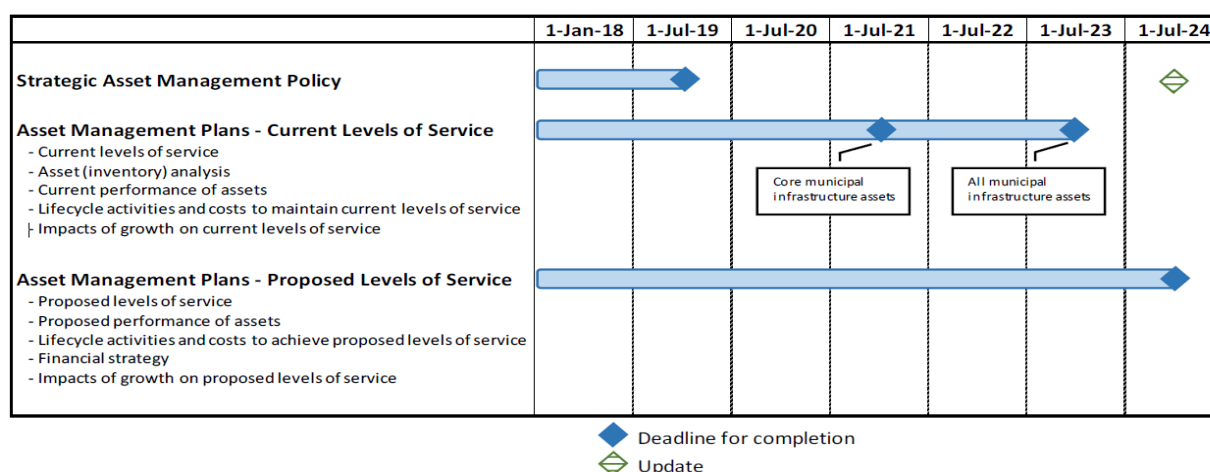
- Timing;
- Contents of the plans;
- Which identified portions of the plan will require certification;
- Public consultation process; and
- Limitations, updates, refinements, etc.

As noted earlier, it is expected that this Act will implement the principles of the S.W.S.S.A. once all regulations are put in place.

## **1.7 Infrastructure for Jobs and Prosperity Act, 2015 (I.J.P.A.)**

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On June 4, 2015, the Province of Ontario passed the I.J.P.A. which, over time, will require municipalities to undertake and implement asset management plans for all infrastructure they own. On December 27, 2017, the Province released Ontario Regulation 588/17 under the I.J.P.A. which has three phases that municipalities must meet:



Every municipality in Ontario was required to prepare a strategic asset management policy by July 1, 2019. Municipalities will be required to review their strategic asset management policies at least every five years and make updates as necessary. The subsequent phases are as follows:

- Phase 1 – Asset Management Plan (by July 1, 2021):
  - For core assets, municipalities must have the following:
    - Inventory of assets;
    - Current levels of service measured by standard metrics; and
    - Costs to maintain levels of service.
- Phase 2 – Asset Management Plan (by July 1, 2023):
  - Same steps as Phase 1 but for all assets.
- Phase 3 – Asset Management Plan (by July 1, 2024):
  - Builds on Phase 1 and 2 by adding:
    - Proposed levels of service; and
    - Lifecycle management and financial strategy.

In relation to water and wastewater (which is considered a core asset), municipalities will need to have an asset management plan that addresses the related infrastructure by July 1, 2021 (Phase 1). O.Reg. 588/17 specifies that the municipality's asset management plan must include the following for each asset category:

- The current levels of service being provided, determined in accordance with the following qualitative descriptions and technical metrics and based on data from at



most the two calendar years prior to the year in which all information required under this section is included in the asset management plan;

- The current performance of each asset category, including:
  - a summary of the assets in the category;
  - the replacement cost of the assets in the category;
  - the average age of the assets in the category, determined by assessing the average age of the components of the assets;
  - the information available on the condition of the assets in the category;
  - a description of the municipality's approach to assessing the condition of the assets in the category, based on recognized and generally accepted good engineering practices where appropriate; and
- The lifecycle activities that would need to be undertaken to maintain the current levels of service.

Upon completion of the asset management plan for water and wastewater services, the Township will need to consider the impacts on the capital plan provided herein.

## **1.8 Forecast Growth and Servicing Requirements**

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As mentioned earlier, the Township of West Lincoln services 2,437 water customers and 2,426 wastewater customers. Information on the existing number of customers and existing billable volumes was obtained from the Township.

For future water and wastewater customers to be added to the systems, consideration has been given to development potential within the serviced areas of the Township over the forecast period 2021 to 2030. Based on the information provided by staff, the Township is forecasted to generate 1,217 additional customers by 2030.

Based on historical information, the Township's volumes per customer is 161m<sup>3</sup> per year. For forecasting purposes, the assumed billable volumes per customer will be based on that figure.

Tables 1-2 and 1-3 provide for the forecast of water and wastewater users and volumes within the Township, respectively.



Table 1-2  
Township of West Lincoln  
Water System Forecast

**Water Users Forecast**

Year	Total Users	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2020	77	39	77	77	77	77	77	77	77	77	77	77
2021	77		39	77	77	77	77	77	77	77	77	77
2022	77			39	77	77	77	77	77	77	77	77
2023	89				45	89	89	89	89	89	89	89
2024	101					51	101	101	101	101	101	101
2025	114						57	114	114	114	114	114
2026	126							63	126	126	126	126
2027	139								70	139	139	139
2028	139									70	139	139
2029	139										70	139
2030	139											70
<b>Total</b>	<b>1,217</b>	<b>39</b>	<b>116</b>	<b>193</b>	<b>276</b>	<b>371</b>	<b>479</b>	<b>598</b>	<b>731</b>	<b>870</b>	<b>1,009</b>	<b>1,148</b>
m <sup>3</sup> /user	161	161	161	161	161	161	161	161	161	161	161	161
<b>Annual Flow</b>		<b>6,279</b>	<b>18,676</b>	<b>31,073</b>	<b>44,436</b>	<b>59,763</b>	<b>77,055</b>	<b>96,310</b>	<b>117,691</b>	<b>140,070</b>	<b>162,449</b>	<b>184,828</b>

Water Customer Forecast	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437
New - Growth	39	116	193	276	371	479	598	731	870	1,009	1,148
<b>Total</b>	<b>2,476</b>	<b>2,553</b>	<b>2,630</b>	<b>2,713</b>	<b>2,808</b>	<b>2,916</b>	<b>3,035</b>	<b>3,168</b>	<b>3,307</b>	<b>3,446</b>	<b>3,585</b>

Water Volume Forecast (m <sup>3</sup> )	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Volumes</b>											
Existing	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720
New	6,279	18,676	31,073	44,436	59,763	77,055	96,310	117,691	140,070	162,449	184,828
<b>Total</b>	<b>579,999</b>	<b>592,396</b>	<b>604,793</b>	<b>618,156</b>	<b>633,483</b>	<b>650,775</b>	<b>670,030</b>	<b>691,411</b>	<b>713,790</b>	<b>736,169</b>	<b>758,548</b>





Table 1-3  
Township of West Lincoln  
Wastewater System Forecast

**Wastewater Users Forecast**

Year	Total Users	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2020	77	39	77	77	77	77	77	77	77	77	77	77
2021	77		39	77	77	77	77	77	77	77	77	77
2022	77			39	77	77	77	77	77	77	77	77
2023	89				45	89	89	89	89	89	89	89
2024	101					51	101	101	101	101	101	101
2025	114						57	114	114	114	114	114
2026	126							63	126	126	126	126
2027	139								70	139	139	139
2028	139									70	139	139
2029	139										70	139
2030	139											70
<b>Total</b>	<b>1,217</b>	<b>39</b>	<b>116</b>	<b>193</b>	<b>276</b>	<b>371</b>	<b>479</b>	<b>598</b>	<b>731</b>	<b>870</b>	<b>1,009</b>	<b>1,148</b>
m <sup>3</sup> /user	161	161	161	161	161	161	161	161	161	161	161	161
<b>Annual Flow</b>		<b>6,279</b>	<b>18,676</b>	<b>31,073</b>	<b>44,436</b>	<b>59,763</b>	<b>77,055</b>	<b>96,310</b>	<b>117,691</b>	<b>140,070</b>	<b>162,449</b>	<b>184,828</b>

Wastewater Customer Forecast	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	2,426	2,426	2,426	2,426	2,426	2,426	2,426	2,426	2,426	2,426	2,426
New - Growth	39	116	193	276	371	479	598	731	870	1,009	1,148
<b>Total</b>	<b>2,465</b>	<b>2,542</b>	<b>2,619</b>	<b>2,702</b>	<b>2,797</b>	<b>2,905</b>	<b>3,024</b>	<b>3,157</b>	<b>3,296</b>	<b>3,435</b>	<b>3,574</b>

Wastewater Flows Forecast (m <sup>3</sup> )	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Volumes</b>											
Existing	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720	573,720
New	6,279	18,676	31,073	44,436	59,763	77,055	96,310	117,691	140,070	162,449	184,828
<b>Total</b>	<b>579,999</b>	<b>592,396</b>	<b>604,793</b>	<b>618,156</b>	<b>633,483</b>	<b>650,775</b>	<b>670,030</b>	<b>691,411</b>	<b>713,790</b>	<b>736,169</b>	<b>758,548</b>



# Chapter 2

## Capital Infrastructure Needs



## 2. Capital Infrastructure Needs

### 2.1 Capital Forecast

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Capital forecasts have been provided for the water and wastewater systems and are presented on Tables 2-1 and 2-2 (note: the costs are in inflated dollars). The basis for these forecasts is the Township's capital budget.

A summary of the capital works related to the water and wastewater services is provided on the following tables.



**Table 2-1**  
**Township of West Lincoln**  
**2021 to 2030 Water Capital Forecast Summary (Inflated \$)**

Description	Forecast 2021-2030	Timing
<b>Capital Expenditures</b>		
Water Meters - Replacement Program	376,000	2021-2029
Rolling Stock - 2025 - 3/4 Ton Van - To replace 2007 Chevrolet	43,000	2025
Facilities - 2027 - Bulk Water Station - Replace roof shingles	11,000	2027
Main - Replace - Construction - 2022 - Brock St - From: RR 20 To: North End	515,000	2022
Main - Replace - Construction - 2029 - Wade Road N - From: West Street To: South Limit	837,000	2029
Equipment - Miscellaneous Water Equipment	50,000	2021-2029
Water Meters - New Installation	369,000	2021-2029
Facilities - 2027 - Bulk Water Building - New Building	345,000	2027
<b>Studies:</b>		
Operating-Study - Water Loss Study	51,000	2021
Operating-Study - Water Distribution System - Leak detection program	281,000	2024-2028
Operating-Other - Water Loss Program	161,000	2025-2026
<b>Growth Related:</b>		
Main - Upsize and Replace - Design - 2022 - Spring Creek Rd - From: Station St To: Hornak Rd	13,000	2022
Main - New - Design - 2022 - Spring Creek Rd - From: Hornak Rd To: SG Rd 5	66,000	2022
Main - New - Design - 2022 - Spring Creek Rd - From: SG Rd 5 To: SG Rd 6	40,000	2022
Main - New - Design - 2022 - South Grimsby Rd 5 - From: Spring Creek Rd To: Northridge Dr	40,000	2022
Main - Upsize and Replace - Design - 2022 - South Grimsby Rd 5 - From: Northridge Dr To: HWY 20	28,000	2022
Main - New - Design - 2022 - South Grimsby Rd 6 - Extension - From: Spring Creek Rd To: HWY 20	28,000	2022
Main - Upsize and Replace - Constuction - 2023 - Sping Creek Rd - From: Station St To: Hornak Rd	125,000	2023
Main - New - Construction - 2023 - SG RD 5 - From: Spring Creek Rd To: Northridge Dr	468,000	2023
Main - Upsize and Replace - Constuction - 2023 - SG RD 5 - From: Northridge Dr To: HWY 20	334,000	2023
Main - New - Construction - 2023 - Spring Creek Rd - From: Hornak Rd To: SG Rd 5	805,000	2023
Main - New - Construction - 2023 - Spring Creek Rd - From: SG Rd 5 To: SG Rd 6	416,000	2023
Main - New - Construction - 2023 - SG RD 6 - From: Spring Creek Rd To: HWY 20	377,000	2023
Main - Upsize and Replace - Design - 2023 - Van Woudenberg Way - From: Station St To: West Boundary Limits	42,000	2023
Main - Upsize and Replace - Constuction - 2024 - Van Woudenberg Way - From: Station St To: West Boundary Limits	383,000	2024
Main - Upsize and Replace - Design - 2024 - St. Catherines St - From: Industrial Park Rd To: Frank St	71,000	2024
Main - New - Design - 2024 - St. Catherines St - From: Frank St To: Griffin St	8,000	2024
Main - Upsize and Replace - Design - 2024 - Griffin St. N - From: Griffin St To: Station & West St	17,000	2024
Main - New - Construction - 2024 - Industrial Park Rd - From: London Rd To: Spring Creek Rd	612,000	2024
Main - Upsize and Replace - Constuction - 2025 - St. Catherines St. - From: Industrial Park Rd To: Frank St	794,000	2025
Main - New - Construction - 2025 - St. Catherines St. - From: Frank St To: Griffin St	119,000	2025
Main - Upsize and Replace - Constuction - 2025 - Griffin St. N - From: Griffin St To: Station St	148,000	2025
Main - New - Construction - 2025 - Industrial Park Rd - From: Pearson Rd To: Urban Boundary	441,000	2025
Main - Replace - Design - 2026 - Colver St - From: RR14 To: Wade Rd	48,000	2026
Main - Replace - Construction - 2027 - Colver St - From: RR14 To: Wade Rd	701,000	2027
<b>Total Capital Expenditures</b>	<b>9,163,000</b>	



Table 2-2  
Township of West Lincoln  
2021 to 2030 Wastewater Capital Forecast Summary (Inflated \$)

Description	Forecast 2021-2030	Timing
<b>Capital Expenditures</b>		
<b>Lifecycle:</b>		
Equipment - Miscellaneous Wastewater Equipment	50,000	2021-2029
Equipment - 2021 - Smoke Tester - To replace 2006 Hurco	4,000	2021
<b>Studies:</b>		
Operating-Study - Pollution Control Plan - CSO Study - Extraneous Flow Reduction Program	152,000	2028
<b>New/Growth Related:</b>		
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	204,000	2021
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	104,000	2022
Operating-Study - Extraneous Flow Reduction Program - Flow Monitoring Study	120,000	2022
Operating-Study - Pollution Control Plan - CSO Study - Extraneous Flow Reduction Program	127,000	2023
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	106,000	2023
Main - Upsize and Replace - Design - 2023 - Hornak Rd & Van Woudenberg Way - From: Station St (MH 167) To: Van Woudenberg Way (MH 340)	37,000	2023
Main - Upsize and Replace - Design - 2023 - Van Woudenberg Way - From: Hornak Rd (MH 454) To: Las Rd (MH 340)	23,000	2023
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	108,000	2024
Main - Upsize and Replace - Constuction - 2024 - Van Woudenberg Way/Hornak Rd - From: Hornak Rd (MH 454) To: Las Rd (MH 340)	381,000	2024
Main - Upsize and Replace - Constuction - 2024 - Hornak Rd - From: Station St (MH 167) To: Van Woudenberg Way (MH 340)	595,000	2024
Main - New - Construction - 2025 - Industrial Park Rd - From: Pearson Rd To: Urban Boundary	743,000	2025
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	110,000	2025
Main - Upsize and Replace - Design - 2026 - Anderson Court - From: MH 230 To: MH 1	25,000	2026
Main - Upsize and Replace - Constuction - 2027 - Anderson Court - From: MH 230 To: MH 1	381,000	2027
<b>Total Capital Expenditures</b>	<b>3,270,000</b>	



# Chapter 3

## Lifecycle Costing



## 3. Lifecycle Costing

### 3.1 Overview of Lifecycle Costing

---

#### 3.1.1 *Definition*

For many years, lifecycle costing has been used in the field of maintenance engineering and to evaluate the advantages of using alternative materials in construction or production design. The method has gained wider acceptance and use in the areas of industrial decision-making and the management of physical assets.

By definition, lifecycle costs are all the costs which are incurred during the lifecycle of a physical asset, from the time its acquisition is first considered to the time it is taken out of service for disposal or redeployment. The stages which the asset goes through in its lifecycle are specification, design, manufacture (or build), install, commission, operate, maintain and disposal. Figure 3-1 depicts these stages in a schematic form.

#### 3.1.2 *Financing Costs*

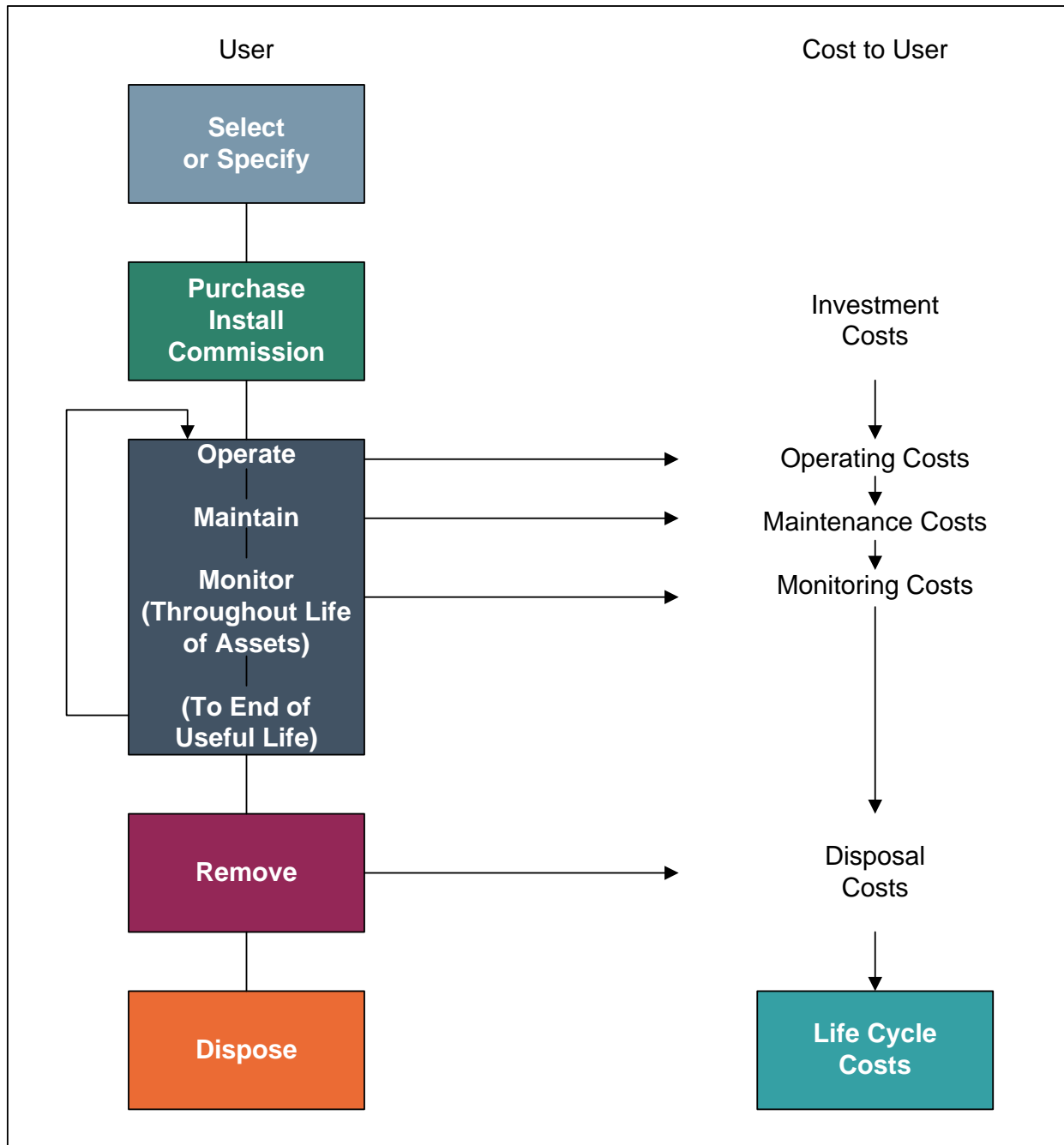
This section will focus on financing mechanisms in place to fund the costs incurred throughout the asset's life.

In a municipal context, services are provided to benefit tax/rate payers. Acquisition of assets is normally timed in relation to direct needs within the community. At times, economies of scale or technical efficiencies will lead to oversizing an asset to accommodate future growth within the Township. Over the past few decades, new financing techniques such as development charges have been employed based on the underlying principle of having tax/rate payers who benefit directly from the service paying for that service. Operating costs which reflect the cost of the service for that year are charged directly to all existing tax/rate payers who have received the benefit. Operating costs are normally charged through the tax base or user rates.

Capital expenditures are recouped through several methods, with operating budget contributions, development charges, reserves, developer contributions and debentures, being the most common.



Figure 3-1  
Lifecycle Costing



New construction related to growth could produce development charges and developer contributions (e.g. works internal to a subdivision which are the responsibility of the developer to construct) to fund a significant portion of projects, where new assets are





being acquired to allow growth within the Township to continue. As well, debentures could be used to fund such works, with the debt charge carrying costs recouped from taxpayers in the future.

Capital construction to replace existing infrastructure, however, is largely not growth-related and will therefore not yield development charges or developer contributions to assist in financing these works. Hence, a municipality will be dependent upon debentures, reserves and contributions from the operating budget to fund these works.

Figure 3-2 depicts the costs of an asset from its initial conception through to replacement and then continues to follow the associated costs through to the next replacement.

As referred to earlier, growth-related financing methods such as development charges and developer contributions could be utilized to finance the growth-related component of the new asset. These revenues are collected (indirectly) from the new homeowner who benefits directly from the installation of this asset. Other financing methods may be used as well to finance the non-growth-related component of this project, such as reserves which have been collected from past tax/rate payers, operating budget contributions which are collected from existing tax/rate payers and debenturing which will be carried by future tax/rate payers. Ongoing costs for monitoring, operating and maintaining the asset will be charged annually to the existing tax/rate payer.

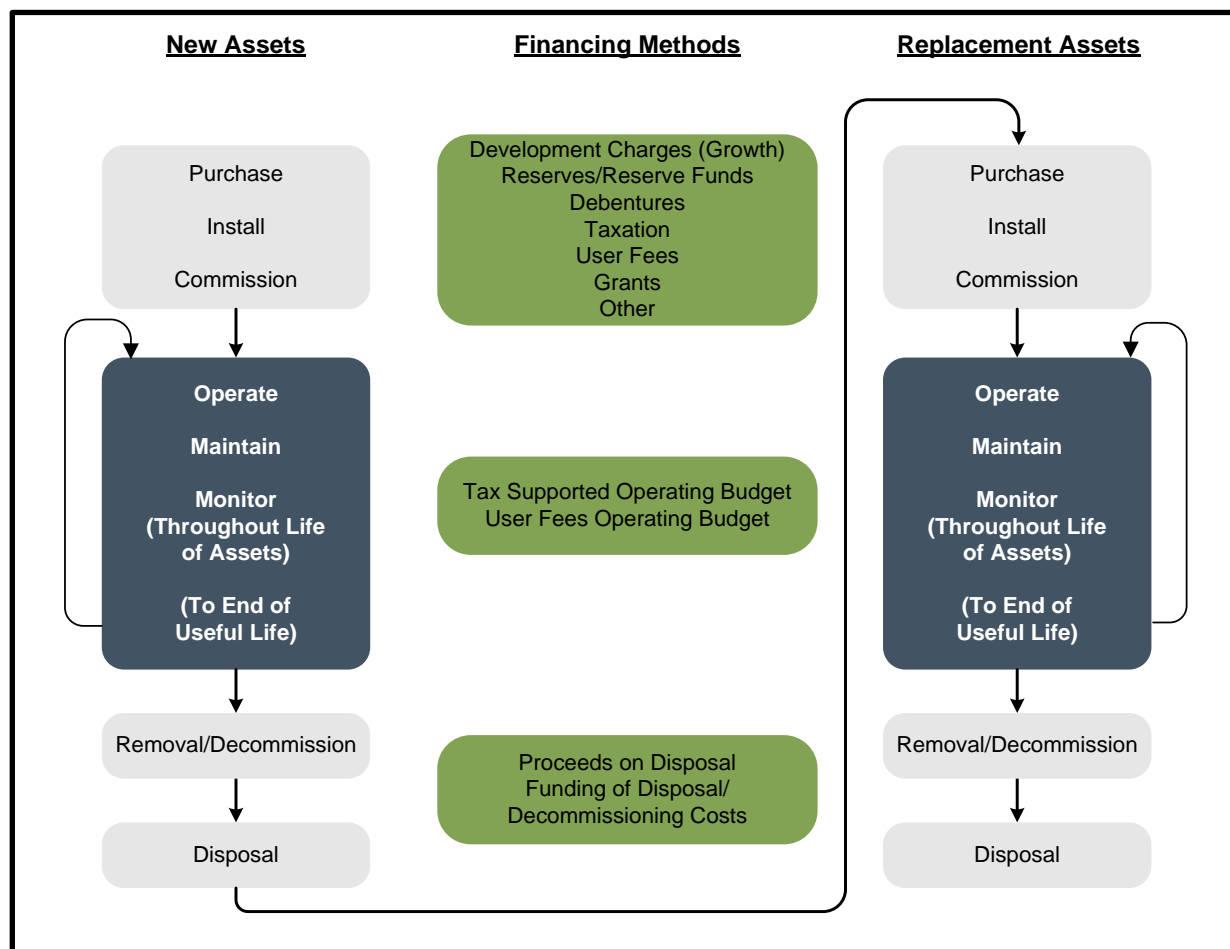
When the asset requires replacement, the sources of financing will be limited to reserves, debentures and contributions from the operating budget. At this point, the question is raised: "If the cost of replacement is to be assessed against the tax/rate payer who benefits from the replacement of the asset, should the past tax/rate payer pay for this cost or should future rate payers assume this cost?" If the position is taken that the past user has used up the asset, hence he should pay for the cost of replacement, then a charge should be assessed annually through the life of the asset, to have funds available to replace it when the time comes. If the position is taken that the future tax/rate payer should assume this cost, then debenturing and, possibly, a contribution from the operating budget should be used to fund this work.

Charging for the cost of using up an asset is the fundamental concept behind depreciation methods utilized by the private sector. This concept allows for expending the asset as it is used up in the production process. The tracking of these costs forms



part of the product's selling price and, hence, end-users are charged for the asset's depreciation. The same concept can be applied in a municipal setting to charge existing users for the asset's use and set those funds aside in a reserve to finance the cost of replacing the asset in the future.

Figure 3-2  
Financing Lifecycle Costs



### 3.1.3 Costing Methods

There are two fundamental methods of calculating the cost of the usage of an asset and for the provision of the revenue required when the time comes to retire and replace it. The first method is the Depreciation Method. This method recognizes the reduction in the value of the asset through wear and tear and aging. There are two commonly used



forms of depreciation: the straight-line method and the reducing balance method (shown graphically in Figure 3-3).

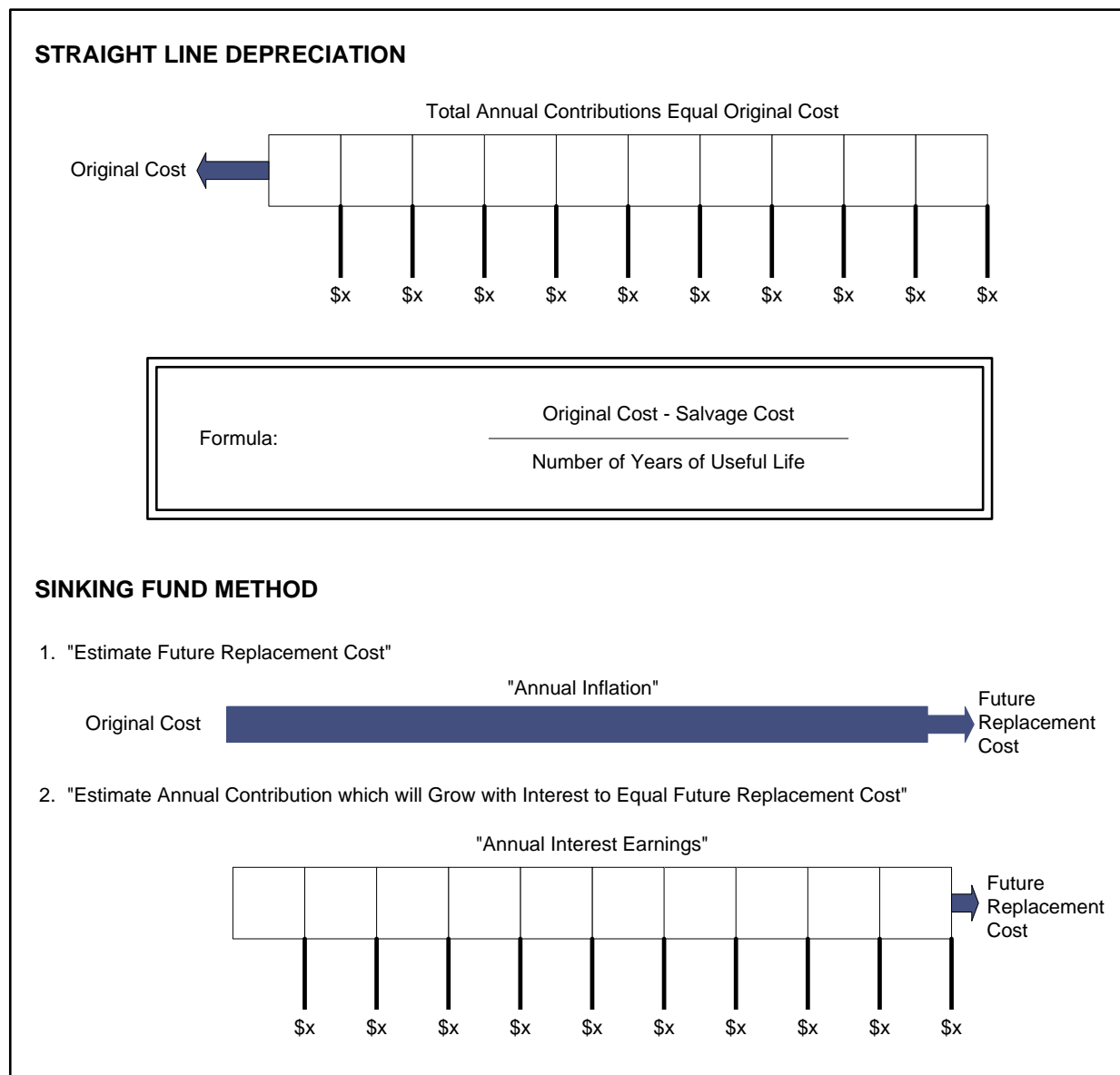
The straight-line method is calculated by taking the original cost of the asset, subtracting its estimated salvage value (estimated value of the asset at the time it is disposed of) and dividing this by the estimated number of years of useful life. The reducing balance method is calculated by utilizing a fixed percentage rate and this rate is applied annually to the undepreciated balance of the asset value.

The second method of lifecycle costing is the sinking fund method. This method first estimates the future value of the asset at the time of replacement. This is done by inflating the original cost of the asset at an assumed annual inflation rate. A calculation is then performed to determine annual contributions (equal or otherwise) which, when invested, will grow with interest to equal the future replacement cost.

The preferred method used herein for forecasting purposes is the sinking fund method of lifecycle costing.



Figure 3-3



## 3.2 Impact on Budgets

Detailed water and wastewater systems inventory information was obtained from the Township. The age of the water system dates back to the early 1950s. The wastewater system dates back to the early 1960s. The total value of existing water infrastructure is \$26.3 million, and the value of existing wastewater infrastructure is \$30.6 million.



The detailed water and wastewater inventories are provided in a separate technical appendix. As well, the lifecycle “sinking fund” contribution amounts for each piece of infrastructure have also been included. These calculations determine the level of investment the Township may wish to consider as part of its budgeting practices. This information is summarized in Figure 3-4.

Figure 3-4  
Township of West Lincoln  
Summary of Water and Wastewater Infrastructure

Area	Total Replacement Value	Suggested amount to be included in 10-year forecast based on estimated life	Amount included in capital forecast (Non-Growth Related)	Net Replacement for Future Lifecycle	Annual Lifecycle Replacement
<b>Water</b>					
Water Facilities	74,434	74,434	4,759,344	21,563,706	-
Water Meters	684,879	682,362			227
Watermains	22,310,387	-			716,111
Hydrants	1,295,136	173,884			40,897
Hydrant Leads	1,224,179	169,059			39,072
Curb Stops	257,760	-			9,733
Water Valves	399,949	206,878			10,169
Water Vehicles and Equipment	76,326	76,001			27
<b>Total Water</b>	<b>26,323,050</b>	<b>1,382,618</b>	<b>4,759,344</b>	<b>21,563,706</b>	<b>816,237</b>
<b>Wastewater</b>					
Sewer Main Inventory	19,103,838	7,133,185	1,762,188	28,859,230	533,704
Sewer Manhole Inventory	3,053,485	870,540			96,731
Sewer Laterals Inventory	8,451,755	-			315,830
Sewer Equipment	12,340	12,340			-
<b>Total Wastewater</b>	<b>30,621,418</b>	<b>8,016,064</b>	<b>1,762,188</b>	<b>28,859,230</b>	<b>946,265</b>
<b>Total</b>	<b>56,944,468</b>	<b>9,398,682</b>	<b>6,521,532</b>	<b>50,422,936</b>	<b>1,762,502</b>

Investment per customer is \$10,801 for water and \$12,622 for wastewater

With respect to lifecycle costing contained in the Appendices, the following information was taken into consideration:

- approximate age;
- material type;
- main lengths;
- diameter of the mains;
- estimated useful life; and
- estimated replacement costs.

Summaries of both water and wastewater assets are shown on Figures 3-5 and 3-6. These figures show when the assets are coming due and the cost of replacement in 2020 dollars.



Figure 3-5  
Township of West Lincoln  
Summary of Water Infrastructure Replacement Years (2020 \$)

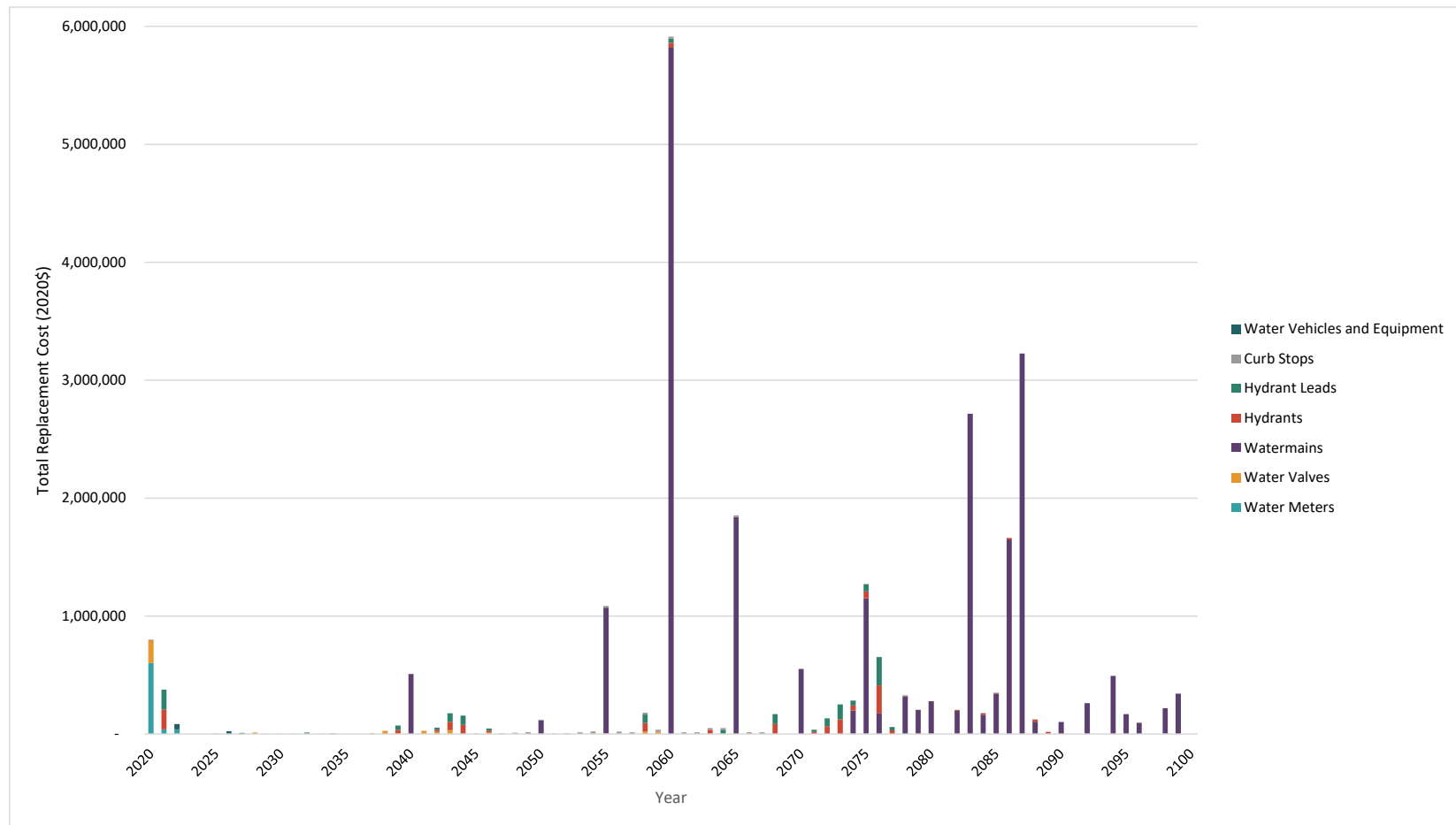
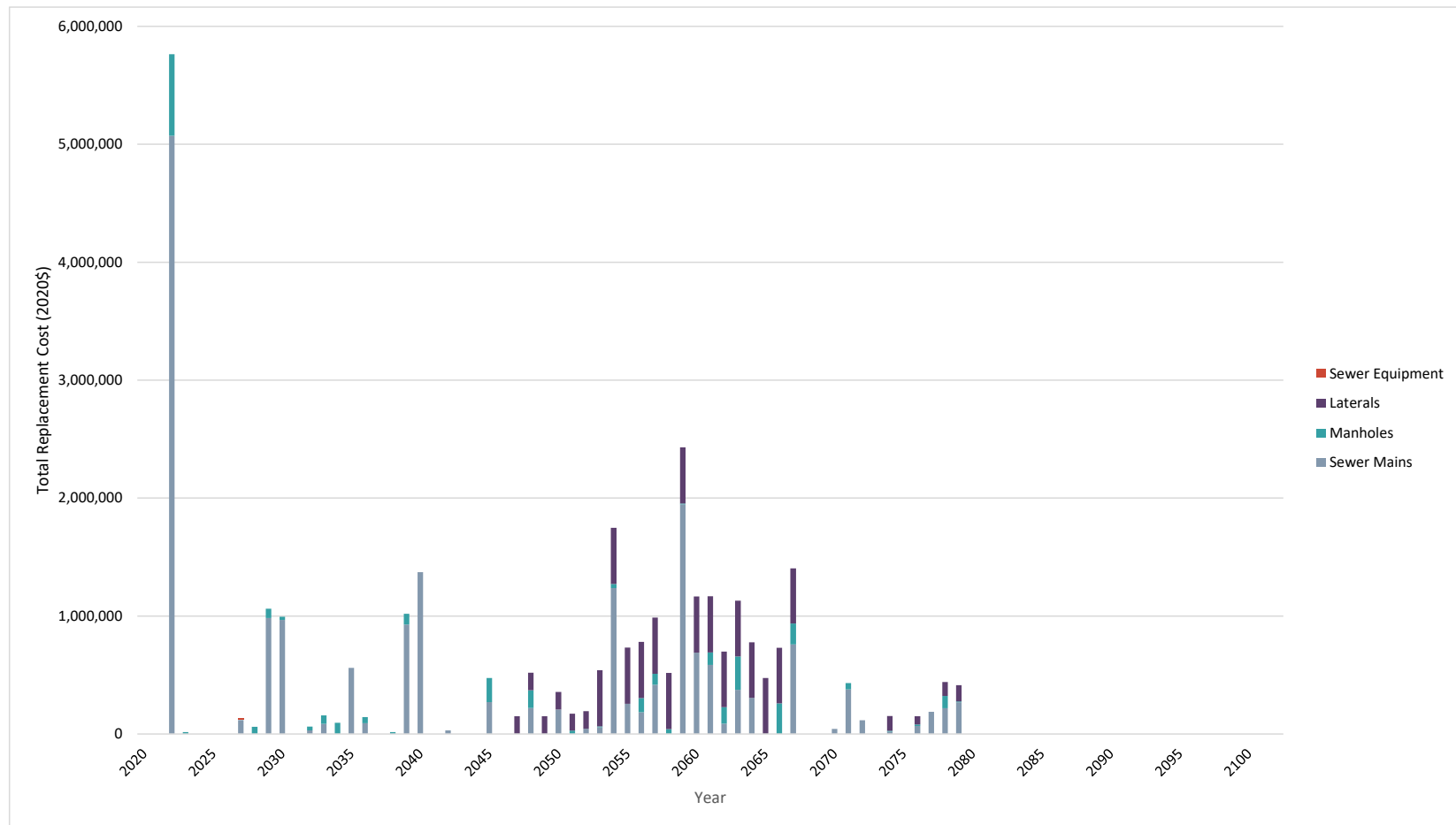




Figure 3-5  
Township of West Lincoln  
Summary of Wastewater Infrastructure Replacement Years (2020 \$)





# Chapter 4

## Capital Cost Financing Options





## 4. Capital Cost Financing Options

### 4.1 Summary of Capital Cost Financing Alternatives

---

Historically, the powers that municipalities had to raise alternative revenues to taxation to fund capital services have been restrictive. Over the past decade, legislative reforms have been introduced. Some of these have expanded municipal powers (e.g. Bill 26 introduced in 1996 to provide for expanded powers for imposing fees and charges), while others appear to restrict them (Bill 98 in 1997 providing amendments to the D.C.A.).

The Province passed a new *Municipal Act* which came into force on January 1, 2003. Part XII of the Act and O.Reg. 584/06 govern a municipality's ability to impose fees and charges. In contrast to the previous *Municipal Act*, this Act provides municipalities with broadly defined powers and does not differentiate between fees for operating and capital purposes. It is anticipated that the powers to recover capital costs under the previous *Municipal Act* will continue within the new Statutes and Regulations, as indicated by s.9(2) and s.452 of the new *Municipal Act*.

Under s.484 of *Municipal Act, 2001*, the *Local Improvement Act* was repealed with the in-force date of the *Municipal Act* (January 1, 2003). The municipal powers granted under the *Local Improvement Act* now fall under the jurisdiction of the *Municipal Act*. To this end, on December 20, 2002, O.Reg. 390/02 was filed, which allowed for the *Local Improvement Act* to be deemed to remain in force until April 1, 2003. O.Reg. 119/03 was enacted on April 19, 2003, which restored many of the previous *Local Improvement Act* provisions; however, the authority is now provided under the *Municipal Act*.

The methods of capital cost recovery available to municipalities are provided as follows:

Recovery Methods	Section Reference
• <i>Development Charges Act, 1997</i>	4.2
• <i>Municipal Act</i>	4.3
○ Fees and Charges	
○ Sewer and Water Area Charges	
○ Connection Fees	
○ Local Improvements	



Recovery Methods	Section Reference
• <i>Grant Funding</i>	4.4
• <i>Existing Reserves/Reserve Funds</i>	4.5
• <i>Debenture Financing</i>	4.6
• <i>Infrastructure Ontario</i>	4.7

## 4.2 Development Charges Act, 1997

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In November, 1996, the Ontario Government introduced Bill 98, a new *Development Charges Act*. The Province's stated intentions were to "create new construction jobs and make home ownership more affordable" by reducing the charges and to "make municipal Council decisions more accountable and more cost effective." The basis for this Act is to allow municipalities to recover the growth-related capital cost of infrastructure necessary to accommodate new growth within the municipality. Generally, the Act provided the following changes to the former Act:

- Replace those sections of the 1989 Act that govern municipal development charges;
- Limit services which can be financed from development charges, specifically excluding parkland acquisition, administration buildings, and cultural, entertainment, tourism, solid waste management and hospital facilities;
- Ensure that the level of service used in the calculation of capital costs will not exceed the average level of service over the previous decade. Level of service is to be measured from both a quality and quantity perspective;
- Provide that uncommitted excess capacity available in existing municipal facilities and benefits to existing residents are removed from the calculation of the charge;
- Ensure that the development charge revenues collected by municipalities are spent only on those capital costs identified in the calculation of the development charge;
- Require municipalities to contribute funds (e.g. taxes, user charges or other non-development charge revenues) to the financing of certain projects primarily funded from development charges. The municipal contribution is 10 percent for services such as recreation, parkland development, libraries, etc.;
- Permit (but apparently not require) municipalities to grant developers credits for the direct provision of services identified in the development charge calculation and, when credits are granted, require the municipality to reimburse the



developer for the costs the municipality would have incurred if the project had been financed from the development charge reserve fund;

- Set out provisions for front-end financing capital projects (limited to essential services) required to service new development; and
- Set out provisions for appeals and complaints.

In late 2015, the Province approved amendments to the D.C.A. through the *Smart Growth for Our Communities Act, 2015*. With respect to water and wastewater, the only changes are for the municipality to provide an asset management calculation for the growth-related works and for the Council to consider (but not necessarily approve) area-specific rates. The D.C.A. was further amended with the *More Homes, More Choice Act, 2019* and the *COVID-19 Economic Recovery Act, 2020*. However, these amendments did not impact water or wastewater.

## 4.3 Municipal Act

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Part XII of the *Municipal Act* provides municipalities with broad powers to impose fees and charges via passage of a by-law. These powers, as presented in s.391(1), include imposing fees or charges:

- “for services or activities provided or done by or on behalf of it;
- for costs payable by it for services or activities provided or done by or on behalf of any other municipality or local board; and
- for the use of its property including property under its control.”

Restrictions are provided to ensure that the form of the charge is not akin to a poll tax. Any charges not paid under this authority may be added to the tax roll and collected in a like manner. The fees and charges imposed under this part are not appealable to the Local Planning Appeal Tribunal (LPAT, formerly known as the O.M.B.).

Section 221 of the previous *Municipal Act* permitted municipalities to impose charges, by by-law, on owners or occupants of land who would or might derive benefit from the construction of sewage (storm and sanitary) or water works being authorized (in a specific benefit area). For a by-law imposed under this section of the previous Act:



- A variety of different means could be used to establish the rate and recovery of the costs and could be imposed by a number of methods at the discretion of Council (i.e. lot size, frontage, number of benefiting properties, etc.);
- Rates could be imposed with respect to costs of major capital works, even though an immediate benefit was not enjoyed;
- Non-abutting owners could be charged;
- Recovery was authorized against existing works, where a new water or sewer main was added to such works, "notwithstanding that the capital costs of existing works has in whole or in part been paid;"
- Charges on individual parcels could be deferred;
- Exemptions could be established;
- Repayment was secured; and
- LPAT approval was not required.

While under the new *Municipal Act* no provisions are provided specific to the previous s.221, the intent to allow capital cost recovery through fees and charges is embraced within s.391. The new *Municipal Act* also maintains the ability of municipalities to impose capital charges for water and sewer services on landowners not receiving an immediate benefit from the works. Under s.391(2) of the Act, "a fee or charge imposed under subsection (1) for capital costs related to sewage or water services or activities may be imposed on persons not receiving an immediate benefit from the services or activities but who will receive a benefit at some later point in time." Also, capital charges imposed under s.391 are not appealable to the LPAT on the grounds that the charges are "unfair or unjust."

Section 222 of the previous *Municipal Act* permitted municipalities to pass a by-law requiring buildings to connect to the municipality's sewer and water systems, charging the owner for the cost of constructing services from the mains to the property line. Under the new *Municipal Act*, this power still exists under Part II, General Municipal Powers (s.9 (3) b of the *Municipal Act*). Enforcement and penalties for this use of power are contained in s.427 (1) of the *Municipal Act*.

Under the previous *Local Improvement Act*:

- A variety of different types of works could be undertaken, such as watermain, storm and sanitary sewer projects, supply of electrical light or power, bridge construction, sidewalks, road widening and paving;



- Council could pass a by-law for undertaking such work on petition of a majority of benefiting taxpayers, on a 2/3 vote of Council and on sanitary grounds, based on the recommendation of the Minister of Health. The by-law was required to go to the LPAT, which might hold hearings and alter the by-law, particularly if there were objections;
- The entire cost of a work was assessed only upon the lots abutting directly on the work, according to the extent of their respective frontages, using an equal special rate per metre of frontage; and
- As noted, this Act was repealed as of April 1, 2003; however, O.Reg. 119/03 was enacted on April 19, 2003 which restores many of the previous *Local Improvement Act* provisions; however, the authority is now provided under the *Municipal Act*.

## 4.4 Historical Grant Funding Availability

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### Federal Infrastructure Funding

#### Phase 1 (April 1, 2016 to March 31, 2018)

Funding was provided by the Government of Canada to expressly help municipalities with repair and rehabilitation projects. Funding was mainly provided through the Clean Water and Wastewater Fund (C.W.W.F.) and Public Transit Infrastructure Fund (P.T.I.F.) in Federal Phase 1 projects. The C.W.W.F. was announced in Ontario on September 15, 2016. The Fund is \$1.1 billion for water, wastewater, and storm water systems in Ontario. The federal government provided \$569 million and Ontario and municipal governments provided \$275 million each.

Over 1,300 water, wastewater, and storm water projects have been approved in Ontario through the C.W.W.F. In Ontario, P.T.I.F. accounted for nearly \$1.5 billion of the national total of \$3.4 billion. The program was allocated by ridership numbers from the Canadian Urban Transit Association. The Association of Municipalities of Ontario (A.M.O.) understands that \$1 billion of Ontario's share has been approved.

#### Phase 2: Next Steps

The federal government announced Phase 2 of its infrastructure funding plan with a total of \$180 billion spent over 11 years. In addition to the balance of funding for



previous green, social, and public transit infrastructure funds (\$20 billion each, including Phase 1), the government has added \$10.1 billion for trade and transportation infrastructure and \$2 billion for rural and northern communities. This funding must be implemented by agreements with each Province and Territory.

In Phase 2, Ontario will be eligible for \$11.8 billion including \$8.3 billion for transit, \$2.8 billion for green infrastructure, \$407 million for community, culture and recreation and \$250 million for rural and northern communities.

### Federal Gas Tax

The federal Gas Tax is a permanent source of funding provided up front, twice-a-year, to Provinces and Territories, who in turn flow this funding to their municipalities to support local infrastructure priorities. Municipalities can pool, bank and borrow against this funding, providing significant financial flexibility. Every year, the federal Gas Tax provides over \$2 billion and supports approximately 2,500 projects in communities across Canada. Each municipality selects how best to direct the funds with the flexibility provided to make strategic investments across 18 different project categories, which include other water and wastewater servicing.

### Ontario Government

The Province has taken steps to increase municipal infrastructure funding. The Ontario Community Infrastructure Fund (O.C.I.F.) was increased in 2016 with formula-based support growing to \$200 million, and application funding growing to \$100 million annually by 2018/2019. As well, \$15 million annually will go to the new Connecting Links program to help pay for the construction and repair costs of municipal roads that connect communities to provincial highways. This is on top of the Building Ontario Up investment of \$130 billion in public infrastructure over 10 years starting in 2015.

## **4.5 Existing Reserves/Reserve Funds**

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The Township has established reserves and reserve funds for water and wastewater costs. The following table summarizes the water and wastewater reserves utilized in this analysis and their respective balances at December 31, 2019:



Reserve	Dec. 31 2019
<b>Water</b>	
Capital Reserve	<b>567,764</b>
Development Charges Reserve Fund	<b>532,026</b>
<b>Wastewater</b>	
Capital Reserve	<b>867,287</b>
Development Charges Reserve Fund	<b>646,544</b>

## 4.6 Debenture Financing

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Although it is not a direct method of minimizing the overall cost to the ratepayer, debentures are used by municipalities to assist in cash flowing large capital expenditures.

The Ministry of Municipal Affairs regulates the level of debt incurred by Ontario municipalities, through its powers established under the *Municipal Act*. Ontario Regulation 403/02 provides the current rules respecting municipal debt and financial obligations. Through the rules established under these regulations, a municipality's debt capacity is capped at a level where no more than 25% of the municipality's own purpose revenue may be allotted for servicing the debt (i.e. debt charges). The Township of West Lincoln's 2018 calculation on Debt Capacity is shown on Schedule 81 of the Township's most recent Financial Information Return (F.I.R.). This calculates to the Township's estimated annual repayment limit of approximately \$2.72 million. Based upon 20-year financing at an assumed rate of 3.25%, the available debt for the Township is approximately \$39.5 million.

## 4.7 Infrastructure Ontario

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Infrastructure Ontario (I.O.) is an arms-length crown corporation, which has been set up as a tool to offer low-cost and longer-term financing to assist municipalities in renewing their infrastructure (this corporation has merged the former O.S.I.F.A. into its operations). I.O. combines the infrastructure renewal needs of municipalities into an infrastructure investment "pool." I.O. will raise investment capital to finance loans to the public sector by selling a new investment product called Infrastructure Renewal Bonds to individual and institutional investors.

I.O. provides access to infrastructure capital that would not otherwise be available to smaller borrowers. Larger borrowers receive a longer term on their loans than they





could obtain in the financial markets, and can also benefit from significant savings on transaction costs such as legal costs and underwriting commissions. Under the I.O. approach, all borrowers receive the same low interest rate. I.O. will enter into a financial agreement with each municipality subject to technical and credit reviews, for a loan up to the maximum amount of the loan request.

The first round of the former O.S.I.F.A.'s 2004/2005 infrastructure renewal program was focused on municipal priorities of clean water infrastructure, sewage treatment facilities, municipal roads and bridges, public transit and waste management infrastructure. The focus of the program was expanded in 2005/2006 somewhat to include:

- clean water infrastructure;
- sewage infrastructure;
- waste management infrastructure;
- municipal roads and bridges;
- public transit;
- municipal long-term care homes;
- renewal of municipal social housing and culture; and
- tourism and recreation infrastructure.

With the merging of O.S.I.F.A. and I.O., the program was broadened in late 2006 to also include municipal administrative buildings, local police and fire stations, emergency vehicles and equipment, ferries, docks and municipal airports.

To be eligible to receive these loans, municipalities must submit a formal application along with pertinent financial information. Allotments are prioritized and distributed based upon the Province's assessment of need.

The analysis provided herein assumes that the Township will borrow approximately \$1.10 million for non-growth-related water capital over the forecast, for a 20-year term.

## **4.8 Recommended Capital Financing Approach**

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Of the various funding alternatives provided in this section, the following are recommended for further consideration by the Township of West Lincoln for the capital expenditures (inflated) provided in Chapter 2:

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Description	Water 2021-2030	Wastewater 2021-2030
<b>Capital Financing</b>		
Provincial/Federal Grants	-	-
Development Charges Reserve Fund	4,272,456	1,782,932
Non-Growth Related Debenture Requirements	1,096,474	-
Growth Related Debenture Requirements	-	-
Operating Contributions	-	-
Lifecycle Reserve Fund	-	-
Water/Wastewater Reserve	3,794,071	1,487,068
<b>Total Capital Financing</b>	<b>9,163,000</b>	<b>3,270,000</b>

Tables 4-1 and 4-2 provide for the full capital expenditure and funding program by year for water and wastewater, respectively.



Table 4-1  
Township of West Lincoln  
Capital Budget Forecast – Water (inflated \$)

Description	Budget 2020	Total	Forecast									
			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Capital Expenditures</b>												
<b>Lifecycle:</b>												
Water Meters - Replacement Program	30,000	376,000	31,000	52,000	32,000	32,000	55,000	34,000	69,000	35,000	36,000	-
Rolling Stock - 2025 - 3/4 Ton Van - To replace 2007 Chevrolet	-	43,000	-	-	-	-	43,000	-	-	-	-	-
Main - Replace - Design - 2020 - Brock St - From: RR 20 To: North End	35,000	-	-	-	-	-	-	-	-	-	-	-
Facilities - 2027 - Bulk Water Station - Replace roof shingles	-	11,000	-	-	-	-	-	-	11,000	-	-	-
Main - Upsize and Replace - Construction - 2020 - Griffin St. N - From: RR20 and RR14 Intersection	160,000	-	-	-	-	-	-	-	-	-	-	-
Main - Replace - Construction - 2022 - Brock St - From: RR 20 To: North End	-	515,000	-	515,000	-	-	-	-	-	-	-	-
Main - Replace - Construction - 2029 - Wade Road N - From: West Street To: South Limit	-	837,000	-	-	-	-	-	-	-	-	837,000	-
Equipment - Miscellaneous Water Equipment	5,000	50,000	5,000	5,000	5,000	5,000	6,000	6,000	6,000	6,000	6,000	-
Water Meters - New Installation	31,800	369,000	33,000	35,000	37,000	39,000	41,000	43,000	45,000	47,000	49,000	-
Facilities - 2027 - Bulk Water Building - New Building	-	345,000	-	-	-	-	-	-	345,000	-	-	-
<b>Studies:</b>												
Operating-Study - Water Loss Study	-	51,000	51,000	-	-	-	-	-	-	-	-	-
Operating-Study - Water Distribution System - Leak detection program	-	281,000	-	-	-	54,000	55,000	56,000	57,000	59,000	-	-
Operating-Other - Water Loss Program	-	161,000	-	-	-	-	77,000	84,000	-	-	-	-
<b>Growth Related:</b>												
Main - Replace - Construction - 2020 - West Street - From: South Grimsby Rd 5 To: Wade Rd	200,000	-	-	-	-	-	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2022 - Spring Creek Rd - From: Station St To: Hornak Rd	-	13,000	-	13,000	-	-	-	-	-	-	-	-
Main - New - Design - 2022 - Spring Creek Rd - From: Hornak Rd To: SG Rd 5	-	66,000	-	66,000	-	-	-	-	-	-	-	-
Main - New - Design - 2022 - Spring Creek Rd - From: SG Rd 5 To: SG Rd 6	-	40,000	-	40,000	-	-	-	-	-	-	-	-
Main - New - Design - 2022 - South Grimsby Rd 5 - From: Spring Creek Rd To: Northridge Dr	-	40,000	-	40,000	-	-	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2022 - South Grimsby Rd 5 - From: Northridge Dr To: HWY 20	-	28,000	-	28,000	-	-	-	-	-	-	-	-
Main - New - Design - 2022 - South Grimsby Rd 6 - Extension - From: Spring Creek Rd To: HWY 20	-	28,000	-	28,000	-	-	-	-	-	-	-	-
Main - Upsize and Replace - Construction - 2023 - Spring Creek Rd - From: Station St To: Hornak Rd	-	125,000	-	-	125,000	-	-	-	-	-	-	-
Main - New - Construction - 2023 - SG RD 5 - From: Spring Creek Rd To: Northridge Dr	-	468,000	-	-	468,000	-	-	-	-	-	-	-
Main - Upsize and Replace - Construction - 2023 - SG RD 5 - From: Northridge Dr To: HWY 20	-	334,000	-	-	334,000	-	-	-	-	-	-	-
Main - New - Construction - 2023 - Spring Creek Rd - From: Hornak Rd To: SG Rd 5	-	805,000	-	-	805,000	-	-	-	-	-	-	-
Main - New - Construction - 2023 - Spring Creek Rd - From: SG Rd 5 To: SG Rd 6	-	416,000	-	-	416,000	-	-	-	-	-	-	-
Main - New - Construction - 2023 - SG RD 6 - From: Spring Creek Rd To: HWY 20	-	377,000	-	-	377,000	-	-	-	-	-	-	-



Table 4-1  
Township of West Lincoln  
Capital Budget Forecast – Water (inflated \$) (Cont'd)

Description	Budget 2020	Total	Forecast									
			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Main - Upsize and Replace - Design - 2023 - Van Woudenberg Way - From: Station St To: West Boundary Limits	-	42,000	-	-	42,000	-	-	-	-	-	-	-
Main - Upsize and Replace - Constuction - 2024 - Van Woudenberg Way - From: Station St To: West Boundary Limits	-	383,000	-	-	-	383,000	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2024 - St. Catherines St - From: Industrial Park Rd To: Frank St	-	71,000	-	-	-	71,000	-	-	-	-	-	-
Main - New - Design - 2024 - St. Catherines St - From: Frank St To: Griffin St	-	8,000	-	-	-	8,000	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2024 - Griffin St. N - From: Griffin St To: Station & West St	-	17,000	-	-	-	17,000	-	-	-	-	-	-
Main - New - Construction - 2024 - Industrial Park Rd - From: London Rd To: Spring Creek Rd	-	612,000	-	-	-	612,000	-	-	-	-	-	-
Main - Upsize and Replace - Constuction - 2025 - St. Catherines St. - From: Industrial Park Rd To: Frank St	-	794,000	-	-	-	-	794,000	-	-	-	-	-
Main - New - Construction - 2025 - St. Catherines St. - From: Frank St To: Griffin St	-	119,000	-	-	-	-	119,000	-	-	-	-	-
Main - Upsize and Replace - Constuction - 2025 - Griffin St. N - From: Griffin St To: Station St	-	148,000	-	-	-	-	148,000	-	-	-	-	-
Main - New - Construction - 2025 - Industrial Park Rd - From: Pearson Rd To: Urban Boundary	-	441,000	-	-	-	-	441,000	-	-	-	-	-
Main - Replace - Design - 2026 - Colver St - From: RR14 To: Wade Rd	-	48,000	-	-	-	-	-	48,000	-	-	-	-
Main - Replace - Construction - 2027 - Colver St - From: RR14 To: Wade Rd	-	701,000	-	-	-	-	-	-	701,000	-	-	-
<b>Total Capital Expenditures</b>	<b>461,800</b>	<b>9,163,000</b>	<b>120,000</b>	<b>822,000</b>	<b>2,641,000</b>	<b>1,221,000</b>	<b>1,779,000</b>	<b>271,000</b>	<b>1,234,000</b>	<b>147,000</b>	<b>928,000</b>	<b>-</b>
<b>Capital Financing</b>												
Provincial/Federal Grants	-	-	-	-	-	-	-	-	-	-	-	-
Development Charges Reserve Fund	100,000	4,272,456	-	160,929	1,914,026	851,500	971,500	24,000	350,500	-	-	-
Non-Growth Related Debenture Requirements	-	1,096,474	-	-	726,974	369,500	-	-	-	-	-	-
Growth Related Debenture Requirements	-	-	-	-	-	-	-	-	-	-	-	-
Operating Contributions	-	-	-	-	-	-	-	-	-	-	-	-
Lifecycle Reserve Fund	-	-	-	-	-	-	-	-	-	-	-	-
Water Reserve	361,800	3,794,071	120,000	661,071	-	-	807,500	247,000	883,500	147,000	928,000	-
<b>Total Capital Financing</b>	<b>461,800</b>	<b>9,163,000</b>	<b>120,000</b>	<b>822,000</b>	<b>2,641,000</b>	<b>1,221,000</b>	<b>1,779,000</b>	<b>271,000</b>	<b>1,234,000</b>	<b>147,000</b>	<b>928,000</b>	<b>-</b>



Table 4-2  
Township of West Lincoln  
Capital Budget Forecast – Wastewater (inflated \$)

Description	Budget 2020	Total	Forecast									
			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Capital Expenditures</b>												
<b>Lifecycle:</b>												
Equipment - Miscellaneous Wastewater Equipment	5,000	50,000	5,000	5,000	5,000	5,000	6,000	6,000	6,000	6,000	6,000	-
Equipment - 2021 - Smoke Tester - To replace 2006 Hurco	-	4,000	4,000	-	-	-	-	-	-	-	-	-
<b>Studies:</b>												
Operating-Study - Pollution Control Plan - CSO Study - Extraneous Flow Reduction Program	-	152,000	-	-	-	-	-	-	-	152,000	-	-
Operating-Study - 2020 - Condition Assessments for Sewers	200,000	-	-	-	-	-	-	-	-	-	-	-
<b>New/Growth Related:</b>												
Main - Upsize and Replace - Constuction - 2020 - Wade Road N - From: HWY 20 West St To: South Limit	600,000	-	-	-	-	-	-	-	-	-	-	-
Main - Upsize and Replace - Constuction - 2020 - West Street - From: South Grimsby Rd 5 To: Wade Street N	150,000	-	-	-	-	-	-	-	-	-	-	-
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	-	204,000	204,000	-	-	-	-	-	-	-	-	-
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	-	104,000	-	104,000	-	-	-	-	-	-	-	-
Operating-Study - Extraneous Flow Reduction Program - Flow Monitoring Study	-	120,000	-	120,000	-	-	-	-	-	-	-	-
Operating-Study - Pollution Control Plan - CSO Study - Extraneous Flow Reduction Program	-	127,000	-	-	127,000	-	-	-	-	-	-	-
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	-	106,000	-	-	106,000	-	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2023 - Hornak Rd & Van Woudenberg Way - From: Station St (MH 167) To: Van Woudenberg Way (MH 340)	-	37,000	-	-	37,000	-	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2023 - Van Woudenberg Way - From: Hornak Rd (MH 454) To: Las Rd (MH 340)	-	23,000	-	-	23,000	-	-	-	-	-	-	-
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	-	108,000	-	-	-	108,000	-	-	-	-	-	-
Main - Upsize and Replace - Constuction - 2024 - Van Woudenberg Way/Hornak Rd - From: Hornak Rd (MH 454) To: Las Rd (MH 340)	-	381,000	-	-	-	381,000	-	-	-	-	-	-
Main - Upsize and Replace - Constuction - 2024 - Hornak Rd - From: Station St (MH 167) To: Van Woudenberg Way (MH 340)	-	595,000	-	-	-	595,000	-	-	-	-	-	-
Main - New - Construction - 2025 - Industrial Park Rd - From: Pearson Rd To: Urban Boundary	-	743,000	-	-	-	-	743,000	-	-	-	-	-
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	-	110,000	-	-	-	-	110,000	-	-	-	-	-
Main - Upsize and Replace - Design - 2026 - Anderson Court - From: MH 230 To: MH 1	-	25,000	-	-	-	-	-	25,000	-	-	-	-
Main - Upsize and Replace - Constuction - 2027 - Anderson Court - From: MH 230 To: MH 1	-	381,000	-	-	-	-	-	-	381,000	-	-	-
<b>Total Capital Expenditures</b>	<b>955,000</b>	<b>3,270,000</b>	<b>213,000</b>	<b>229,000</b>	<b>298,000</b>	<b>1,089,000</b>	<b>859,000</b>	<b>31,000</b>	<b>387,000</b>	<b>158,000</b>	<b>6,000</b>	<b>-</b>
<b>Capital Financing</b>												
Provincial/Federal Grants	100,000	-	-	-	-	-	-	-	-	-	-	-
Development Charges Reserve Fund	375,000	1,782,932	63,240	68,762	102,230	521,480	777,100	12,500	190,500	47,120	-	-
Non-Growth Related Debenture Requirements	-	-	-	-	-	-	-	-	-	-	-	-
Growth Related Debenture Requirements	-	-	-	-	-	-	-	-	-	-	-	-
Operating Contributions	-	-	-	-	-	-	-	-	-	-	-	-
Lifecycle Reserve Fund	-	-	-	-	-	-	-	-	-	-	-	-
Wastewater Reserve	480,000	1,487,068	149,760	160,238	195,770	567,520	81,900	18,500	196,500	110,880	6,000	-
<b>Total Capital Financing</b>	<b>955,000</b>	<b>3,270,000</b>	<b>213,000</b>	<b>229,000</b>	<b>298,000</b>	<b>1,089,000</b>	<b>859,000</b>	<b>31,000</b>	<b>387,000</b>	<b>158,000</b>	<b>6,000</b>	<b>-</b>



# Chapter 5

## Overview of Expenditures and Revenues



## 5. Overview of Expenditures and Revenues

### 5.1 Water Operating Expenditures

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In this report, the water operating forecast (2021 to 2030) are based on the 2020 operating budgets. The costs for each component of the operating budget have been reviewed with staff to establish forecast inflationary adjustments. The largest component of the operating expenditures is the purchased water from Niagara Region (which represents 51% of operating costs for 2020). The purchased water cost has a variable and fixed charge component, which have both been assumed to increase at a rate of 5%. Additionally, the volumes associated with new customers have also been included as part of the purchased water from the Region. Staffing related expenses have been assumed to increase at a rate of 2% over the forecast period, however, the Township has indicated the need to add one new water/wastewater staff member in 2021 and another in 2024. The incremental salary costs for these two staff members have been added in the respective years and split equally amongst the water and wastewater operating budgets. Operating expenditures that involve fuel and hydro have been inflated by 5.0% annually. The balance of the operating expenditures has been assumed to increase at a rate of 3.0% annually.

In addition, contributions to the water capital reserve have been included. The water capital reserve transfers are used to fund the water capital program identified in Chapter 2, with additional contributions being made annually in order to fund the future replacement of existing water infrastructure as identified in section 3.2. Finally, debentures related to non-growth-related expenditures have also been included.

### 5.2 Water Operating Revenues

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The Township's fixed revenue sources are generated primarily from base charges and service fees to help contribute towards operating expenditures. The water base charges are calculated to increase by 5% annually over the forecast period, while the service fees have been assumed to remain constant. The base charges are further discussed in section 6.5 of this study.



Additionally, the Township generates revenues from bulk water sales. The bulk water rates have been assumed to increase at 5% per year (this is discussed further in Chapter 7).

Note that the operating revenue presented herein represents the fixed component of the total operating revenue (except for bulk water). The shortfall of the fixed revenue from the operating expenditures is what is used to calculate the recovery from the water volume rates, which is presented in Chapter 7. Table 5-1 provides for the water operating budget for the Township.



**Table 5-1**  
**Township of West Lincoln**  
**Operating Budget Forecast – Water (inflated \$)**

Description	Budget 2020	Forecast									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Expenditures</b>											
Operating Costs											
WAT-UTLY-SALARY	56,600	100,200	102,200	104,200	148,800	151,800	154,800	157,900	161,100	164,300	167,600
WAT-UTLY-WAGES	91,800	93,600	95,500	97,400	99,300	101,300	103,300	105,400	107,500	109,700	111,900
WAT-UTLY-WAGES OT	18,400	18,800	19,200	19,600	20,000	20,400	20,800	21,200	21,600	22,000	22,400
WAT-UTLY-CPP	6,000	6,100	6,200	6,300	6,400	6,500	6,600	6,700	6,800	6,900	7,000
WAT-UTLY-EI	2,500	2,600	2,700	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500
WAT-UTLY-EHT	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200
WAT-UTLY-WSIB	4,700	4,800	4,900	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700
WAT-UTLY-OMERS	15,000	15,300	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700	18,100
WAT-UTLY-GROUP BENEFITS	18,400	18,800	19,200	19,600	20,000	20,400	20,800	21,200	21,600	22,000	22,400
WAT-UTLY-TRAINING	9,800	10,100	10,400	10,700	11,000	11,300	11,600	11,900	12,300	12,700	13,100
WAT-UTLY-OFFICE SUPPLIES	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
WAT-UTLY-POSTAGE	4,700	4,800	4,900	5,000	5,200	5,400	5,600	5,800	6,000	6,200	6,400
WAT-UTLY-UNIFORMS	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000	3,100
WAT-UTLY-SMALL TOOLS	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	4,100
WAT-UTLY-FUEL	1,400	1,500	1,600	1,700	1,800	1,900	2,000	2,100	2,200	2,300	2,400
PURCHASED WATER FROM REGION	752,997	800,328	850,510	904,542	963,626	1,028,221	1,098,825	1,176,143	1,259,542	1,348,341	1,442,872
WAT-UTLY-R&M EQUIPMENT	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000
WAT-UTLY-R&M ENVIRON INFRSTRCT	31,700	32,700	33,700	34,700	35,700	36,800	37,900	39,000	40,200	41,400	42,600
WAT-UTLY-WATER	2,500	2,600	2,700	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500
WAT-UTLY-COMMUNICATION	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
WAT-UTLY-INSURANCE	20,800	21,400	22,000	22,700	23,400	24,100	24,800	25,500	26,300	27,100	27,900
WAT-UTLY-SOFTWARE FEES	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
WAT-UTLY-CONSULTANT FEES	10,400	10,700	11,000	11,300	11,600	11,900	12,300	12,700	13,100	13,500	13,900
WAT-UTLY-OUTSIDE SERVICES	23,600	24,300	25,000	25,800	26,600	27,400	28,200	29,000	29,900	30,800	31,700
WAT-UTLY-EQUIPMENT ALLOCATIN	21,400	22,000	22,700	23,400	24,100	24,800	25,500	26,300	27,100	27,900	28,700
WAT-UTLY-ALLOCTN OF PRGM SUP	287,500	296,100	305,000	314,200	323,600	333,300	343,300	353,600	364,200	375,100	386,400
WAT-BLK-R&M FACILITIES	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000
WAT-BLK-R&M ENVIRON INFRSTRCT	2,700	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700
WAT-BLK-HYDRO	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000
WAT-BLK-COMMUNICATION	900	900	900	900	900	900	900	900	900	900	900
WAT-BLK-OUTSIDE SERVICES	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400	4,500	4,600
WAT-BLK-EQUIPMENT ALLOCATIN	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
WAT-UTLY-ADVERTISING	500	500	500	500	500	500	500	500	500	500	500
WAT-DIST-WATER RATE STUDY & FIN PLAN	65,000	-	-	-	-	75,000	-	-	-	-	-
<b>Sub Total Operating</b>	<b>1,472,697</b>	<b>1,515,028</b>	<b>1,584,110</b>	<b>1,657,542</b>	<b>1,778,926</b>	<b>1,939,721</b>	<b>1,956,925</b>	<b>2,056,443</b>	<b>2,162,842</b>	<b>2,275,041</b>	<b>2,393,572</b>





Table 5-1 (Cont'd)  
Township of West Lincoln  
Operating Budget Forecast – Water (inflated \$)

Description	Budget 2020	Forecast									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Capital-Related</b>											
Existing Debt (Principal) - Growth Related											
Existing Debt (Interest) - Growth Related											
New Growth Related Debt (Principal)		-	-	-	-	-	-	-	-	-	-
New Growth Related Debt (Interest)		-	-	-	-	-	-	-	-	-	-
Existing Debt (Principal) - Non-Growth Related											
Existing Debt (Interest) - Non-Growth Related											
New Non-Growth Related Debt (Principal)		-	-	-	26,374	40,636	41,957	43,320	44,728	46,182	47,683
New Non-Growth Related Debt (Interest)		-	-	-	23,627	34,778	33,458	32,094	30,686	29,232	27,731
Transfer to Capital		-	-	-	-	-	-	-	-	-	-
Transfer to Capital Reserve	239,683	229,333	277,480	331,343	300,947	345,702	425,832	517,059	617,649	726,354	844,462
<b>Sub Total Capital Related</b>	<b>239,683</b>	<b>229,333</b>	<b>277,480</b>	<b>331,343</b>	<b>350,947</b>	<b>421,116</b>	<b>501,246</b>	<b>592,473</b>	<b>693,064</b>	<b>801,768</b>	<b>919,876</b>
<b>Total Expenditures</b>	<b>1,712,380</b>	<b>1,744,362</b>	<b>1,861,590</b>	<b>1,988,885</b>	<b>2,129,873</b>	<b>2,360,837</b>	<b>2,458,171</b>	<b>2,648,916</b>	<b>2,855,906</b>	<b>3,076,809</b>	<b>3,313,447</b>
<b>Revenues</b>											
Base Charge	424,165	457,838	493,817	533,320	577,824	627,847	683,947	746,951	815,958	889,998	969,402
Other Revenue		-	-	-	-	-	-	-	-	-	-
WAT-UTLY-P&I	14,000										
WAT-UTLY-WATER SERVICES FEES	47,600	47,600	47,600	47,600	47,600	47,600	47,600	47,600	47,600	47,600	47,600
WAT-BLK-VARIABLE CHARGES	364,116	382,764	402,392	423,003	444,595	467,168	490,723	515,259	540,776	567,275	595,737
Contributions from Development Charges Reserve Fund	-	-	-	-	-	-	-	-	-	-	-
Contributions from Reserves / Reserve Funds	65,000	-	-	-	-	75,000	-	-	-	-	-
<b>Total Operating Revenue</b>	<b>914,881</b>	<b>888,201</b>	<b>943,809</b>	<b>1,003,922</b>	<b>1,070,019</b>	<b>1,217,614</b>	<b>1,222,270</b>	<b>1,309,810</b>	<b>1,404,334</b>	<b>1,504,873</b>	<b>1,612,740</b>
<b>Water Billing Recovery - Operating</b>	<b>797,498</b>	<b>856,160</b>	<b>917,781</b>	<b>984,962</b>	<b>1,059,854</b>	<b>1,143,223</b>	<b>1,235,901</b>	<b>1,339,106</b>	<b>1,451,572</b>	<b>1,571,936</b>	<b>1,700,708</b>
<b>Water Billing Recovery - Total</b>	<b>797,498</b>	<b>856,160</b>	<b>917,781</b>	<b>984,962</b>	<b>1,059,854</b>	<b>1,143,223</b>	<b>1,235,901</b>	<b>1,339,106</b>	<b>1,451,572</b>	<b>1,571,936</b>	<b>1,700,708</b>



## 5.3 Wastewater Operating Expenditures

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Similar to water, the largest component of the wastewater operating expenditures is the purchased wastewater treatment from Niagara Region (73% of wastewater operating costs). In 2020, the costs related to the purchased wastewater treatment from the Region represented 172% of the purchased water costs. This proportion has been assumed to continue over the forecast period so that the costs of purchased water and treated wastewater increase at the same rate. Staffing related expenses have been assumed to increase at a rate of 2% over the forecast period, however, as mentioned in section 5.1, the Township has indicated the to add one new water/wastewater staff member in 2021 and another in 2024. The incremental salary costs for these two staff members have been added in the respective years and split equally amongst water and wastewater. The balance of the operating expenditures has been assumed to increase at a rate of 3% annually.

In addition, contributions to the wastewater capital reserve have been included. The wastewater capital reserve transfers are used to fund the wastewater capital program identified in Chapter 2, with additional contributions being made annually in order to fund the future replacement of existing water infrastructure as identified in section 3.2.

## 5.4 Wastewater Operating Revenues

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The wastewater operating revenue for the Township comes mainly from base charges along with volumetric revenue from customers. A small amount of revenue is also generated from service fees and the Ontario Clean Water Agency (both have been assumed to remain constant over the forecast period). The wastewater base charges have been calculated to increase at 5% per year (discussed further in Chapter 6), while the volume rates are proposed to increase by 5% for 2021, and then dropping to 2% per year over the remainder of the forecast period (discussed in Chapter 7).

Table 5-2 outlines the wastewater operating budget for West Lincoln.



Table 5-2  
Township of West Lincoln  
Operating Budget Forecast – Wastewater (inflated \$)

Description	Budget 2020	Forecast									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Expenditures</b>											
<b>Operating Costs</b>											
WW-COLL-SALARY	36,900	80,100	81,700	83,300	127,500	130,100	132,700	135,400	138,100	140,900	143,700
WW-COLL-WAGES	51,400	52,400	53,400	54,500	55,600	56,700	57,800	59,000	60,200	61,400	62,600
WW-COLL-WAGES OT	9,900	10,100	10,300	10,500	10,700	10,900	11,100	11,300	11,500	11,700	11,900
WW-COLL-CPP	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400	4,500
WW-COLL-EI	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
WW-COLL-EHT	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
WW-COLL-WSIB	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800
WW-COLL-OMERS	9,000	9,200	9,400	9,600	9,800	10,000	10,200	10,400	10,600	10,800	11,000
WW-COLL-GROUP BENEFITS	10,900	11,100	11,300	11,500	11,700	11,900	12,100	12,300	12,500	12,800	13,100
WW-COLL-OFFICE SUPPLIES	800	800	800	800	800	800	800	800	800	800	800
WW-COLL-POSTAGE	4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800	4,900	5,000	5,200
WW-COLL-FUEL	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400
WW-COLL-R&M ENVIRON INFRSTRCT	9,600	9,900	10,200	10,500	10,800	11,100	11,400	11,700	12,100	12,500	12,900
WW-COLL-INSURANCE	17,200	17,700	18,200	18,700	19,300	19,900	20,500	21,100	21,700	22,400	23,100
WW-COLL-SOFTWARE FEES	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
WW-COLL-OUTSIDE SERVICES	59,400	61,200	63,000	64,900	66,800	68,800	70,900	73,000	75,200	77,500	79,800
WW-COLL-EQUIPMENT ALLOCATIN	8,700	9,000	9,300	9,600	9,900	10,200	10,500	10,800	11,100	11,400	11,700
WW-COLL-ALLOCTN OF PRGM SUP	251,000	258,500	266,300	274,300	282,500	291,000	299,700	308,700	318,000	327,500	337,300
WW-TREAT-OUTSIDE SERVICES	1,298,700	1,375,505	1,461,751	1,554,614	1,656,160	1,767,179	1,888,524	2,021,408	2,164,745	2,317,361	2,479,828
<b>Sub Total Operating</b>	<b>1,779,800</b>	<b>1,912,105</b>	<b>2,012,551</b>	<b>2,120,014</b>	<b>2,279,060</b>	<b>2,406,379</b>	<b>2,544,324</b>	<b>2,694,308</b>	<b>2,855,245</b>	<b>3,026,061</b>	<b>3,207,128</b>
<b>Capital-Related</b>											
Existing Debt (Principal) - Growth Related											
Existing Debt (Interest) - Growth Related											
New Growth Related Debt (Principal)		-	-	-	-	-	-	-	-	-	-
New Growth Related Debt (Interest)		-	-	-	-	-	-	-	-	-	-
Existing Debt (Principal) - Non-Growth Related											
Existing Debt (Interest) - Non-Growth Related											
New Non-Growth Related Debt (Principal)		-	-	-	-	-	-	-	-	-	-
New Non-Growth Related Debt (Interest)		-	-	-	-	-	-	-	-	-	-
Transfer to Capital		-	-	-	-	-	-	-	-	-	-
Transfer to Capital Reserve	231,566	235,697	262,569	293,730	290,112	336,481	392,055	457,946	531,103	608,403	690,304
<b>Sub Total Capital Related</b>	<b>231,566</b>	<b>235,697</b>	<b>262,569</b>	<b>293,730</b>	<b>290,112</b>	<b>336,481</b>	<b>392,055</b>	<b>457,946</b>	<b>531,103</b>	<b>608,403</b>	<b>690,304</b>
<b>Total Expenditures</b>	<b>2,011,366</b>	<b>2,147,801</b>	<b>2,275,120</b>	<b>2,413,744</b>	<b>2,569,171</b>	<b>2,742,860</b>	<b>2,936,379</b>	<b>3,152,254</b>	<b>3,386,348</b>	<b>3,634,464</b>	<b>3,897,432</b>
<b>Revenues</b>											
Base Charge	965,568	1,042,559	1,124,855	1,215,243	1,317,128	1,431,696	1,560,238	1,704,656	1,862,870	2,032,645	2,214,739
Other Revenue											
Service Fees	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Ontario Clean Water Agency	14,300	14,300	14,300	14,300	14,300	14,300	14,300	14,300	14,300	14,300	14,300
Contributions from Development Charges Reserve Fund	-	-	-	-	-	-	-	-	-	-	-
Contributions from Reserves / Reserve Funds	-	-	-	-	-	-	-	-	-	-	-
<b>Total Operating Revenue</b>	<b>981,868</b>	<b>1,058,859</b>	<b>1,141,155</b>	<b>1,231,543</b>	<b>1,333,428</b>	<b>1,447,996</b>	<b>1,576,538</b>	<b>1,720,956</b>	<b>1,879,170</b>	<b>2,048,945</b>	<b>2,231,039</b>
<b>Wastewater Billing Recovery - Operating</b>	<b>1,029,498</b>	<b>1,088,942</b>	<b>1,133,965</b>	<b>1,182,201</b>	<b>1,235,744</b>	<b>1,294,864</b>	<b>1,359,841</b>	<b>1,431,298</b>	<b>1,507,178</b>	<b>1,585,520</b>	<b>1,666,393</b>
<b>Wastewater Billing Recovery - Total</b>	<b>1,029,498</b>	<b>1,088,942</b>	<b>1,133,965</b>	<b>1,182,201</b>	<b>1,235,744</b>	<b>1,294,864</b>	<b>1,359,841</b>	<b>1,431,298</b>	<b>1,507,178</b>	<b>1,585,520</b>	<b>1,666,393</b>



# Chapter 6

## Pricing Structures

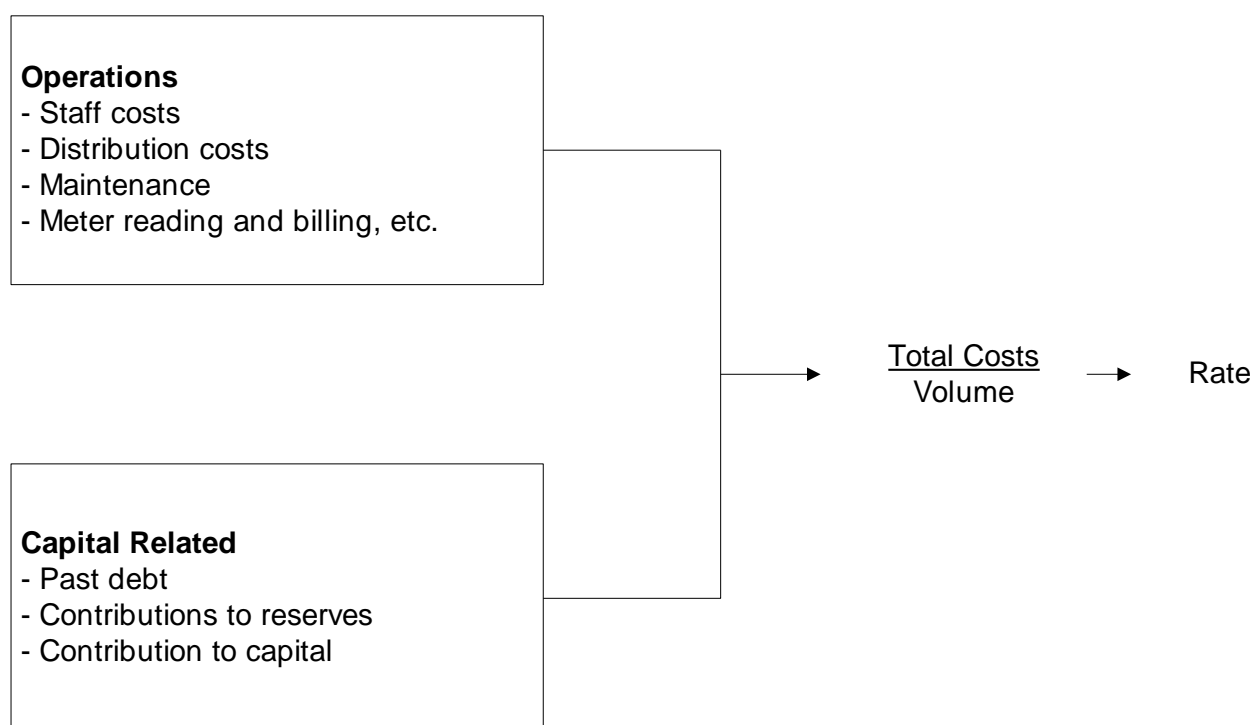


## 6. Pricing Structures

### 6.1 Introduction

Rates, in their simplest form, can be defined as total costs to maintain the utility function divided by the total expected volume to be generated for the period. Total costs are usually a combination of operating costs (e.g. staff costs, distribution costs, maintenance, administration, etc.) and capital-related costs (e.g. past debt to finance capital projects, transfers to reserves to finance future expenditures, etc.). The schematic below provides a simplified illustration of the rate calculation for water.

#### “Annual Costs”



These operating and capital expenditures will vary over time. Examples of factors that will affect the expenditures over time are provided below.

#### Operations

- Inflation;



- Increased maintenance as system ages; and
- Changes to provincial legislation.

### Capital Related

- New capital will be built as areas expand;
- Replacement capital needed as system ages; and
- Financing of capital costs are a function of policy regarding reserves and direct financing from rates (pay as you go), debt and user pay methods (development charges, *Municipal Act*).

## 6.2 Alternative Pricing Structures

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Throughout Ontario, and as well, Canada, the use of pricing mechanisms varies between municipalities. The use of a particular form of pricing depends upon numerous factors, including Council preference, administrative structure, surplus/deficit system capacities, economic/demographic conditions, to name a few.

Municipalities within Ontario have two basic forms of collecting revenues for water purposes, those being through incorporation of the costs within the tax rate charged on property assessment and/or through the establishment of a specific water rate billed to the customer. Within the rate methods, there are five basic rate structures employed along with other variations:

- Flat Rate (non-metered customers);
- Constant Rate;
- Declining Block Rate;
- Increasing (or Inverted) Block Rate;
- Hump Back Block Rate; and
- Base Charges.

The definitions and general application of the various methods are as follows:

**Property Assessment:** This method incorporates the total costs of providing water into the general requisition or the assessment base of the municipality. This form of collection is a "wealth tax," as payment increases directly with the value of property owned and bears no necessary relationship to actual consumption. This form is easy to



administer as the costs to be recovered are incorporated in the calculation for all general services, normally collected through property taxes.

**Flat Rate:** This rate is a constant charge applicable to all customers served. The charge is calculated by dividing the total number of user households and other entities (e.g. businesses) into the costs to be recovered. This method does not recognize differences in actual consumption but provides for a uniform spreading of costs across all users. Some municipalities define users into different classes of similar consumption patterns, that is, a commercial user, residential user and industrial user, and charge a flat rate by class. Each user is then billed on a periodic basis. No meters are required to facilitate this method, but an accurate estimate of the number of users is required. This method ensures set revenue for the collection period but is not sensitive to consumption, hence may cause a shortfall or surplus of revenues collected.

**Constant Rate:** This rate is a volume-based rate, in which the consumer pays the same price per unit consumed, regardless of the volume. The price per unit is calculated by dividing the total cost of the service by the total volume used by total consumers. The bill to the consumer climbs uniformly as the consumption increases. This form of rate requires the use of meters to record the volume consumed by each user. This method closely aligns the revenue recovery with consumption. Revenue collected varies directly with the consumption volume.

**Declining Block Rates:** This rate structure charges a successively lower price for set volumes, as consumption increases through a series of "blocks." That is to say that within set volume ranges, or blocks, the charge per unit is set at one rate. Within the next volume range, the charge per unit decreases to a lower rate, and so on. Typically, the first, or first and second blocks cover residential and light commercial uses. Subsequent blocks normally are used for heavier commercial and industrial uses. This rate structure requires the use of meters to record the volume consumed by each type of user. This method requires the collection and analysis of consumption patterns by user classification to establish rates at a level which does not over or under collect revenue from rate payers.

**Increasing or Inverted Block Rates:** The increasing block rate works essentially the same way as the declining block rate, except that the price of water in successive blocks increases rather than declines. Under this method the consumer's bill rises faster with higher volumes used. This rate structure also requires the use of meters to



record the volume consumed by each user. This method requires, as with the declining block structure, the collection and analysis of consumption patterns by user classification to establish rates at a level which does not over or under collect from rate payers.

**The Hump Back Rate:** The hump back rate is a combination of an increasing block rate and the declining block rate. Under this method the consumer's bill rises with higher volumes used up to a certain level and then begins to fall for volumes in excess of levels set for the increasing block rate.

## 6.3 Assessment of Alternative Pricing Structures

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The adoption by a municipality or utility of any one particular pricing structure is normally a function of a variety of administrative, social, demographic and financial factors. The number of factors, and the weighting each particular factor receives, can vary between municipalities. The following is a review of some of the more prevalent factors.

### Cost Recovery

Cost recovery is a prime factor in establishing a particular pricing structure. Costs can be loosely defined into different categories: operations, maintenance, capital, financing and administration. These costs often vary between municipalities and even within a municipality, based on consumption patterns, infrastructure age, economic growth, etc.

The pricing alternatives defined earlier can all achieve the cost recovery goal, but some do so more precisely than others. Fixed pricing structures, such as Property Assessment and Flat Rate, are established on the value of property or on the number of units present in the municipality, but do not adjust in accordance with consumption. Thus, if actual consumption for the year is greater than projected, the municipality incurs a higher cost of production, but the revenue base remains static (since it was determined at the beginning of the year), thus potentially providing a funding shortfall. Conversely, if the consumption level declines below projections, fixed pricing structures will produce more revenue than actual costs incurred.





The other pricing methods (declining block, constant rate, increasing block) are consumption-based and generally will generate revenues in proportion to actual consumption.

### Administration

Administration is defined herein as the staffing, equipment and supplies required to support the undertaking of a particular pricing strategy. This factor not only addresses the physical tangible requirements to support the collection of the revenues, but also the intangible requirements, such as policy development.

The easiest pricing structure to support is the Property Assessment structure. As municipalities undertake the process of calculating property tax bills and the collection process for their general services, the incorporation of the water costs into this calculation would have virtually no impact on the administrative process and structure.

The Flat Rate pricing structure is relatively easy to administer as well. It is normally calculated to collect a set amount, either on a monthly, quarterly, semi-annual or annual basis, and is billed directly to the customer. The impact on administration centres mostly on the accounts receivable or billing area of the municipality, but normally requires minor additional staff or operating costs to undertake.

The three remaining methods, those being Increasing Block Rate, Constant Rate and Declining Block Rate, have a more dramatic effect on administration. These methods are dependent upon actual consumption and hence involve a major structure in place to administer. First, meters must be installed in all existing units in the municipality, and units to be subsequently built must be required to include these meters. Second, meter readings must be undertaken periodically. Hence staff must be available for this purpose or a service contract must be negotiated. Third, the billings process must be expanded to accommodate this process. Billing must be done per a defined period, requiring staff to produce the bills. Lastly, either through increased staffing or by service contract, an annual maintenance program must be set up to ensure meters are working effectively in recording consumed volumes.

The benefit derived from the installation of meters is that information on consumption patterns becomes available. This information provides benefit to administration in calculating rates which will ensure revenue recovery. Additionally, when planning what services are to be constructed in future years, the municipality or utility has documented



consumption patterns distinctive to its own situation, which can be used to project sizing of growth-related works.

### Equity

Equity is always a consideration in the establishment of pricing structures but its definition can vary depending on a municipality's circumstances and based on the subjective interpretation of those involved. For example: is the price charged to a particular class of rate payer consistent with those of a similar class in surrounding municipalities; through the pricing structure does one class of rate payer pay more than another class; should one pay based on ability to pay, or on the basis that a unit of water costs the same to supply no matter who consumes it; etc.? There are many interpretations. Equity therefore must be viewed broadly in light of many factors as part of achieving what is best for the municipality as a whole.

### Conservation

In today's society, conservation of natural resources is increasingly being more highly valued. Controversy continuously focuses on the preservation of non-renewable resources and on the proper management of renewable resources. Conservation is also a concept which applies to a municipality facing physical limitations in the amount of water which can be supplied to an area. As well, financial constraints can encourage conservation in a municipality where the cost of providing each additional unit is increasing.

Pricing structures such as property assessment and flat rate do not, in themselves, encourage conservation. In fact, depending on the price which is charged, they may even encourage resource "squandering," either because consumers, without the price discipline, consume water at will, or the customer wants to get his money's worth and hence adopts more liberal consumption patterns. The fundamental reason for this is that the price paid for the service bears no direct relationship to the volume consumed and hence is viewed as a "tax," instead of being viewed as the price of a purchased commodity.

The Declining Block Rate provides a decreasing incentive towards conservation. By creating awareness of volumes consumed, the consumer can reduce his total costs by restricting consumption; however, the incentive lessens as more water is consumed, because the marginal cost per unit declines as the consumer enters the next block



pricing range. Similarly, those whose consumption level is at the top end of a block have less incentive to reduce consumption.

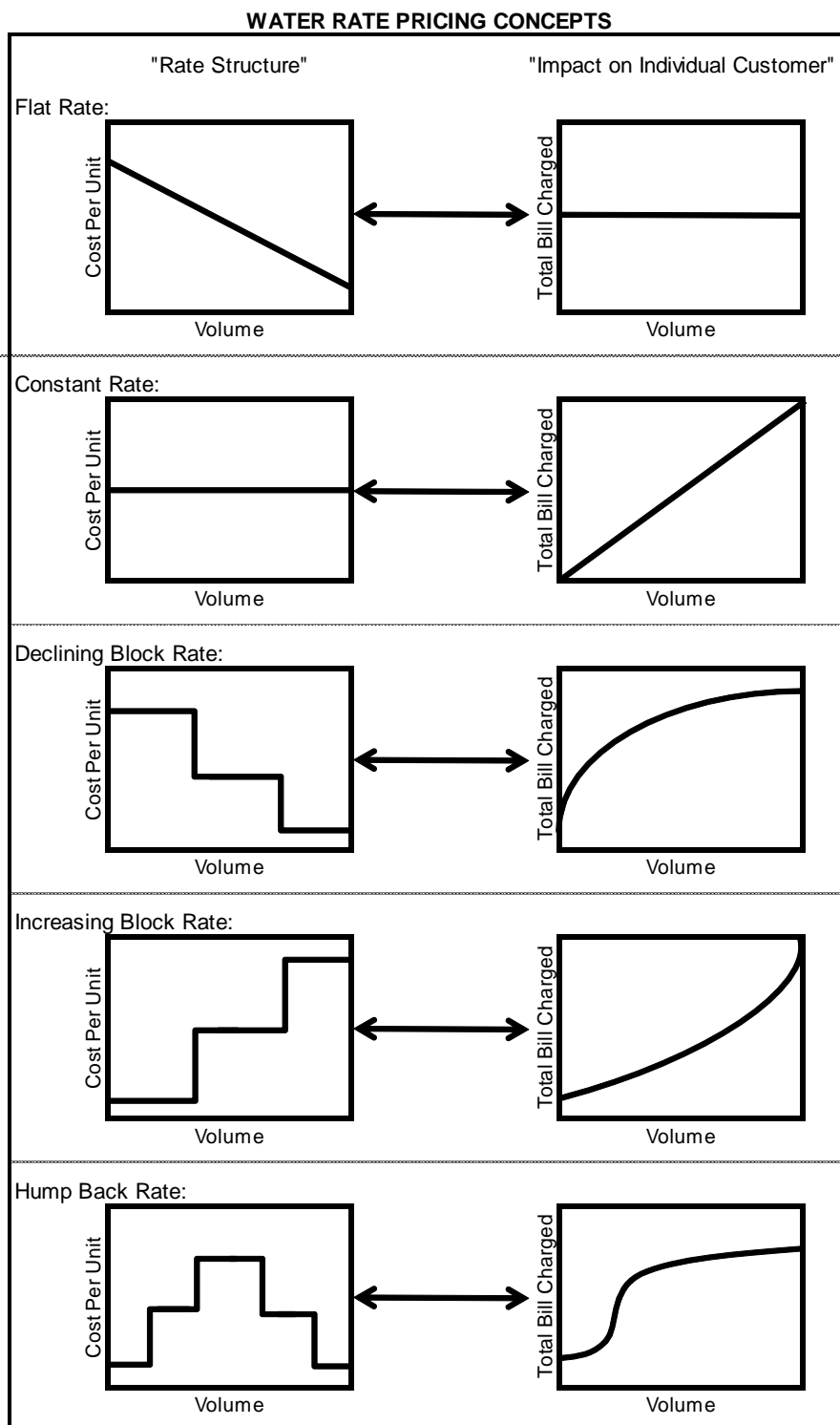
The Constant Rate structure presents the customer with a linear relationship between consumption and the cost thereof. As the consumer pays a fixed cost per unit, his bill will vary directly with the amount consumed. This method presents tangible incentive for consumers to conserve water. As metering provides direct feedback as to usage patterns and the consumer has direct control over the total amount paid for the commodity, the consumer is encouraged to use only those volumes that are reasonably required.

The Inverted Block method presents the most effective pricing method for encouraging conservation. Through this method, the price per unit consumed increases as total volumes consumed grow. The consumer becomes aware of consumption through metering with the charges increasing dramatically with usage. Hence, there normally is awareness that exercising control over usage can produce significant savings. This method not only encourages conservation methods, but may also penalize legitimate high-volume users if not properly structured.

Figure 6-1 provides a schematic representation of the various rate structures (note property tax as a basis for revenue recovery has not been presented for comparison, as the proportion of taxes paid varies in direct proportion to the market value of the property). The graphs on the left-hand side of the figure present the cost per unit for each additional amount of water consumed. The right-hand side of the figure presents the impact on the customer's bill as the volume of water increases. Following the schematic is a table summarizing each rate structure.



Figure 6-1





RATE STRUCTURE	COST PER UNIT AS VOLUME CONSUMPTION INCREASES	IMPACT ON CUSTOMER BILL AS VOLUME CONSUMPTION INCREASES
Flat Rate	Cost per unit decreases as more volume consumed	Bill remains the same no matter how much volume is consumed
Constant Rate	Cost per unit remains the same	Bill increases in direct proportion to consumption
Declining Block	Cost per unit decreases as threshold targets are achieved	Bill increases at a slower rate as volumes increases
Increasing Block	Cost per unit increases as threshold targets are achieved	Bill increases at a faster rate as volumes increase
Hump Back Rate	Combination of an increasing block at the lower consumption volumes and then converts to a declining block for the high	Bill increases at a faster rate at the lower consumption amounts and then slows as volumes increase

## 6.4 Rate Structures in Ontario

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In a past survey of over 170 municipalities (approximately half of the municipalities who provide water and/or sewer), all forms of rate structures are in use by Ontario municipalities. The most common rate structure is the constant rate (for metered municipalities). Most municipalities (approximately 92%) who have volume rate structures also impose a base monthly charge.

Historically, the development of a base charge often reflected either the recovery of meter reading/billing/collection costs, plus administration or those costs plus certain fixed costs (such as capital contributions or reserve contributions). More recently, many municipalities have started to establish base charges based on ensuring a secure portion of the revenue stream which does not vary with volume consumption. Selection of the quantum of the base charge is a matter of policy selected by individual municipalities.



## 6.5 Recommended Rate Structures

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Based on the foregoing, it is recommended that the same rate structures be continued in the future. The Township currently utilizes a quarterly base charge and constant volume rate for both water and wastewater.

### 6.5.1 *Water Base Charges*

In order to meet the needs for water, it is recommended that the base charges be increased by 5% annually over the forecast period. The revenue collected from the water base charges currently recovers 25% of the operating expenditures. With the 5% annual increases, the water base charges should reflect approximately 30% by the end of the forecast period. This practice is to ensure that the Township will have secured revenue should fluctuations in volumes occur. The forecasted water base charges for the different meter sizes are presented in Table 6-1.

### 6.5.2 *Wastewater Base Charges*

With respect to wastewater, it is recommended that the base charges be increased at the same percentage as water, which is 5% annually over the forecast period. The revenue collected from the wastewater base charges currently recovers 48% of the operating expenditures. With the 5% annual increases, the wastewater base charges should reflect approximately 57% by the end of the forecast period. As mentioned above, this practice is to ensure that the Township will have secured revenue should fluctuations in volumes occur. The forecasted wastewater base charges for the different meter sizes are presented in Table 6-2.



Table 6-1  
Township of West Lincoln  
Base Charge Forecast – Water

Water	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437	2,437
New	39	116	193	276	371	479	598	731	870	1,009	1,148
<b>Total Customers</b>	<b>2,476</b>	<b>2,553</b>	<b>2,630</b>	<b>2,713</b>	<b>2,808</b>	<b>2,916</b>	<b>3,035</b>	<b>3,168</b>	<b>3,307</b>	<b>3,446</b>	<b>3,585</b>
<b>Total Annual Revenue</b>	<b>\$424,165</b>	<b>\$457,838</b>	<b>\$493,817</b>	<b>\$533,320</b>	<b>\$577,824</b>	<b>\$627,847</b>	<b>\$683,947</b>	<b>\$746,951</b>	<b>\$815,958</b>	<b>\$889,998</b>	<b>\$969,402</b>

5/8" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	2,388	2,388	2,388	2,388	2,388	2,388	2,388	2,388	2,388	2,388	2,388
New	39	116	193	276	371	479	598	731	870	1,009	1,148
<b>Subtotal Customers</b>	<b>2,427</b>	<b>2,504</b>	<b>2,581</b>	<b>2,664</b>	<b>2,759</b>	<b>2,867</b>	<b>2,986</b>	<b>3,119</b>	<b>3,258</b>	<b>3,397</b>	<b>3,536</b>
Quarterly Base Charge (Jan-June)	\$37.60	\$39.48	\$41.45	\$43.53	\$45.70	\$47.99	\$50.39	\$52.91	\$55.55	\$58.33	\$61.25
Quarterly Base Charge (July-Dec)	\$39.48	\$41.45	\$43.53	\$45.70	\$47.99	\$50.39	\$52.91	\$55.55	\$58.33	\$61.25	\$64.31
Annual Base Charge	\$154.16	\$161.87	\$169.96	\$178.46	\$187.38	\$196.75	\$206.59	\$216.92	\$227.76	\$239.15	\$251.11
<b>Total Annual Revenue</b>	<b>\$374,146</b>	<b>\$405,317</b>	<b>\$438,670</b>	<b>\$475,416</b>	<b>\$517,026</b>	<b>\$564,008</b>	<b>\$616,917</b>	<b>\$676,569</b>	<b>\$742,057</b>	<b>\$812,402</b>	<b>\$887,926</b>

¾" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	0	0	0	0	0	0	0	0	0	0	0
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Quarterly Base Charge (Jan-June)	\$37.60	\$39.48	\$41.45	\$43.53	\$45.70	\$47.99	\$50.39	\$52.91	\$55.55	\$58.33	\$61.25
Quarterly Base Charge (July-Dec)	\$39.48	\$41.45	\$43.53	\$45.70	\$47.99	\$50.39	\$52.91	\$55.55	\$58.33	\$61.25	\$64.31
Annual Base Charge	\$154.16	\$161.87	\$169.96	\$178.46	\$187.38	\$196.75	\$206.59	\$216.92	\$227.76	\$239.15	\$251.11
<b>Total Annual Revenue</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

1" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	11	11	11	11	11	11	11	11	11	11	11
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>
Quarterly Base Charge (Jan-June)	\$93.99	\$98.69	\$103.62	\$108.81	\$114.25	\$119.96	\$125.96	\$132.25	\$138.87	\$145.81	\$153.10
Quarterly Base Charge (July-Dec)	\$98.69	\$103.62	\$108.81	\$114.25	\$119.96	\$125.96	\$132.25	\$138.87	\$145.81	\$153.10	\$160.76
Annual Base Charge	\$385.36	\$404.63	\$424.86	\$446.10	\$468.41	\$491.83	\$516.42	\$542.24	\$569.35	\$597.82	\$627.71
<b>Total Annual Revenue</b>	<b>\$4,239</b>	<b>\$4,451</b>	<b>\$4,673</b>	<b>\$4,907</b>	<b>\$5,152</b>	<b>\$5,410</b>	<b>\$5,681</b>	<b>\$5,965</b>	<b>\$6,263</b>	<b>\$6,576</b>	<b>\$6,905</b>

1 ¼" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	0	0	0	0	0	0	0	0	0	0	0
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Quarterly Base Charge (Jan-June)	\$140.98	\$148.03	\$155.43	\$163.20	\$171.36	\$179.93	\$188.93	\$198.37	\$208.29	\$218.71	\$229.64
Quarterly Base Charge (July-Dec)	\$148.03	\$155.43	\$163.20	\$171.36	\$179.93	\$188.93	\$198.37	\$208.29	\$218.71	\$229.64	\$241.13
Annual Base Charge	\$578.02	\$606.92	\$637.27	\$669.13	\$702.59	\$737.72	\$774.60	\$813.33	\$854.00	\$896.70	\$941.54
<b>Total Annual Revenue</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

1 ½" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	16	16	16	16	16	16	16	16	16	16	16
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>
Quarterly Base Charge (Jan-June)	\$187.98	\$197.38	\$207.25	\$217.61	\$228.49	\$239.92	\$251.91	\$264.51	\$277.73	\$291.62	\$306.20
Quarterly Base Charge (July-Dec)	\$197.38	\$207.25	\$217.61	\$228.49	\$239.92	\$251.91	\$264.51	\$277.73	\$291.62	\$306.20	\$321.51
Annual Base Charge	\$770.72	\$809.26	\$849.72	\$892.21	\$936.82	\$983.66	\$1,032.84	\$1,084.48	\$1,138.71	\$1,195.64	\$1,255.42
<b>Total Annual Revenue</b>	<b>\$12,332</b>	<b>\$12,948</b>	<b>\$13,596</b>	<b>\$14,275</b>	<b>\$14,989</b>	<b>\$15,739</b>	<b>\$16,525</b>	<b>\$17,352</b>	<b>\$18,219</b>	<b>\$19,130</b>	<b>\$20,087</b>

2" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	18	18	18	18	18	18	18	18	18	18	18
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>
Quarterly Base Charge (Jan-June)	\$300.76	\$315.80	\$331.59	\$348.17	\$365.58	\$383.86	\$403.05	\$423.20	\$444.36	\$466.58	\$489.91
Quarterly Base Charge (July-Dec)	\$315.80	\$331.59	\$348.17	\$365.58	\$383.86	\$403.05	\$423.20	\$444.36	\$466.58	\$489.91	\$514.40
Annual Base Charge	\$1,233.12	\$1,294.78	\$1,359.52	\$1,427.49	\$1,498.87	\$1,573.81	\$1,652.50	\$1,735.13	\$1,821.89	\$1,912.98	\$2,008.63
<b>Total Annual Revenue</b>	<b>\$22,196</b>	<b>\$23,306</b>	<b>\$24,471</b>	<b>\$25,695</b>	<b>\$26,980</b>	<b>\$28,329</b>	<b>\$29,745</b>	<b>\$31,232</b>	<b>\$32,794</b>	<b>\$34,434</b>	<b>\$36,155</b>

3" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	3	3	3	3	3	3	3	3	3	3	3
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>
Quarterly Base Charge (Jan-June)	\$601.53	\$631.61	\$663.19	\$696.35	\$731.17	\$767.73	\$806.11	\$846.42	\$888.74	\$933.18	\$979.83
Quarterly Base Charge (July-Dec)	\$631.61	\$663.19	\$696.35	\$731.17	\$767.73	\$806.11	\$846.42	\$888.74	\$933.18	\$979.83	\$1,028.83
Annual Base Charge	\$2,466.28	\$2,589.60	\$2,719.08	\$2,855.04	\$2,997.79	\$3,147.68	\$3,305.06	\$3,470.31	\$3,643.83	\$3,826.02	\$4,017.32
<b>Total Annual Revenue</b>	<b>\$7,399</b>	<b>\$7,769</b>	<b>\$8,157</b>	<b>\$8,565</b>	<b>\$8,993</b>	<b>\$9,443</b>	<b>\$9,915</b>	<b>\$10,411</b>	<b>\$10,931</b>	<b>\$11,478</b>	<b>\$12,052</b>

4" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	1	1	1	1	1	1	1	1	1	1	1
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
Quarterly Base Charge (Jan-June)	\$939.90	\$986.90	\$1,036.25	\$1,088.06	\$1,142.46	\$1,199.58	\$1,259.56	\$1,322.54	\$1,388.67	\$1,458.10	\$1,531.01
Quarterly Base Charge (July-Dec)	\$986.90	\$1,036.25	\$1,088.06	\$1,142.46	\$1,199.58	\$1,259.56	\$1,322.54	\$1,388.67	\$1,458.10	\$1,531.01	\$1,607.56
Annual Base Charge	\$3,853.60	\$4,046.29	\$4,248.60	\$4,461.03	\$4,684.09	\$4,918.29	\$5,164.21	\$5,422.42	\$5,693.54	\$5,978.21	\$6,277.12
<b>Total Annual Revenue</b>	<b>\$3,854</b>	<b>\$4,046</b>	<b>\$4,249</b>	<b>\$4,461</b>	<b>\$4,684</b>	<b>\$4,918</b>	<b>\$5,164</b>	<b>\$5,422</b>	<b>\$5,694</b>	<b>\$5,978</b>	<b>\$6,277</b>

6" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	0	0	0	0	0	0	0	0	0	0	0
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Quarterly Base Charge (Jan-June)	\$1,879.78	\$1,973.77	\$2,072.46	\$2,176.08	\$2,284.89	\$2,399.13	\$2,519.09	\$2,645.04	\$2,777.29	\$2,916.16	\$3,061.97
Quarterly Base Charge (July-Dec)	\$1,973.77	\$2,072.46	\$2,176.08	\$2,284.89	\$2,399.13	\$2,519.09	\$2,645.04	\$2,777.29	\$2,916.16	\$3,061.97	\$3,215.06
Annual Base Charge	\$7,707.10	\$8,092.46	\$8,497.08	\$8,921.93	\$9,368.03	\$9,836.43	\$10,328.25	\$10,844.67	\$11,386.90	\$11,956.24	\$12,554.06
<b>Total Annual Revenue</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

8" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	0	0	0	0	0	0	0	0	0	0	0
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Quarterly Base Charge (Jan-June)	\$3,007.65	\$3,158.03	\$3,315.93	\$3,481.73	\$3,655.81	\$3,838.61	\$4,030.54	\$4,232.06	\$4,443.67	\$4,665.85	\$4,899.14
Quarterly Base Charge (July-Dec)	\$3,158.03	\$3,315.93	\$3,481.73	\$3,655.81	\$3,838.61	\$4,030.54	\$4,232.06	\$4,443.67	\$4,665.85	\$4,899.14	\$5,144.10
Annual Base Charge	\$12,331.36	\$12,947.92	\$13,595.32	\$14,275.09	\$14,988.84	\$15,738.28	\$16,525.20	\$17,351.46	\$18,219.03	\$19,129.98	\$20,086.48
<b>Total Annual Revenue</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



Table 6-2  
Township of West Lincoln  
Base Charge Forecast – Wastewater

Wastewater	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	2,426	2,426	2,426	2,426	2,426	2,426	2,426	2,426	2,426	2,426	2,426
New	39	116	193	276	371	479	598	731	870	1,009	1,148
<b>Subtotal Customers</b>	<b>2,465</b>	<b>2,542</b>	<b>2,619</b>	<b>2,702</b>	<b>2,797</b>	<b>2,905</b>	<b>3,024</b>	<b>3,157</b>	<b>3,296</b>	<b>3,435</b>	<b>3,574</b>
<b>Total Annual Revenue</b>	<b>\$965,568</b>	<b>\$1,042,559</b>	<b>\$1,124,855</b>	<b>\$1,215,243</b>	<b>\$1,317,128</b>	<b>\$1,431,696</b>	<b>\$1,560,238</b>	<b>\$1,704,656</b>	<b>\$1,862,870</b>	<b>\$2,032,645</b>	<b>\$2,214,739</b>

5/8" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	2,382	2,382	2,382	2,382	2,382	2,382	2,382	2,382	2,382	2,382	2,382
New	39	116	193	276	371	479	598	731	870	1,009	1,148
<b>Subtotal Customers</b>	<b>2,421</b>	<b>2,498</b>	<b>2,575</b>	<b>2,658</b>	<b>2,753</b>	<b>2,861</b>	<b>2,980</b>	<b>3,113</b>	<b>3,252</b>	<b>3,391</b>	<b>3,530</b>
Quarterly Base Charge (Jan-June)	\$66.68	\$91.01	\$95.56	\$100.34	\$105.36	\$110.62	\$116.15	\$121.96	\$128.06	\$134.46	\$141.19
Quarterly Base Charge (July-Dec)	\$91.01	\$95.56	\$100.34	\$105.36	\$110.62	\$116.15	\$121.96	\$128.06	\$134.46	\$141.19	\$148.25
Annual Base Charge	\$355.38	\$373.14	\$391.80	\$411.39	\$431.96	\$453.56	\$476.23	\$500.04	\$525.05	\$551.30	\$578.86
<b>Total Annual Revenue</b>	<b>\$860,375</b>	<b>\$932,106</b>	<b>\$1,008,880</b>	<b>\$1,093,469</b>	<b>\$1,189,265</b>	<b>\$1,297,440</b>	<b>\$1,419,270</b>	<b>\$1,556,639</b>	<b>\$1,707,452</b>	<b>\$1,869,456</b>	<b>\$2,043,390</b>

¾" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	0	0	0	0	0	0	0	0	0	0	0
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Quarterly Base Charge (Jan-June)	\$86.68	\$91.01	\$95.56	\$100.34	\$105.36	\$110.62	\$116.15	\$121.96	\$128.06	\$134.46	\$141.19
Quarterly Base Charge (July-Dec)	\$91.01	\$95.56	\$100.34	\$105.36	\$110.62	\$116.15	\$121.96	\$128.06	\$134.46	\$141.19	\$148.25
Annual Base Charge	\$355.38	\$373.14	\$391.80	\$411.39	\$431.96	\$453.56	\$476.23	\$500.04	\$525.05	\$551.30	\$578.86
<b>Total Annual Revenue</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

1" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	10	10	10	10	10	10	10	10	10	10	10
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>
Quarterly Base Charge (Jan-June)	\$216.70	\$227.54	\$238.92	\$250.86	\$263.41	\$276.58	\$290.41	\$304.93	\$320.17	\$336.18	\$352.99
Quarterly Base Charge (July-Dec)	\$227.54	\$238.92	\$250.86	\$263.41	\$276.58	\$290.41	\$304.93	\$320.17	\$336.18	\$352.99	\$370.64
Annual Base Charge	\$888.48	\$932.91	\$979.56	\$1,028.54	\$1,079.96	\$1,133.96	\$1,190.66	\$1,250.19	\$1,312.70	\$1,378.34	\$1,447.26
<b>Total Annual Revenue</b>	<b>\$8,885</b>	<b>\$9,329</b>	<b>\$9,796</b>	<b>\$10,285</b>	<b>\$10,800</b>	<b>\$11,340</b>	<b>\$11,907</b>	<b>\$12,502</b>	<b>\$13,127</b>	<b>\$13,783</b>	<b>\$14,473</b>

1 ¼" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	0	0	0	0	0	0	0	0	0	0	0
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Quarterly Base Charge (Jan-June)	\$325.04	\$341.29	\$358.35	\$376.27	\$395.09	\$414.84	\$435.58	\$457.36	\$480.23	\$504.24	\$529.45
Quarterly Base Charge (July-Dec)	\$341.29	\$358.35	\$376.27	\$395.09	\$414.84	\$435.58	\$457.36	\$480.23	\$504.24	\$529.45	\$555.93
Annual Base Charge	\$1,332.66	\$1,399.29	\$1,469.25	\$1,542.72	\$1,619.85	\$1,700.84	\$1,785.89	\$1,875.18	\$1,968.94	\$2,067.39	\$2,170.76
<b>Total Annual Revenue</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

1 ½" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	14	14	14	14	14	14	14	14	14	14	14
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>
Quarterly Base Charge (Jan-June)	\$433.40	\$455.07	\$477.82	\$501.71	\$526.80	\$553.14	\$580.80	\$609.84	\$640.33	\$672.35	\$705.96
Quarterly Base Charge (July-Dec)	\$455.07	\$477.82	\$501.71	\$526.80	\$553.14	\$580.80	\$609.84	\$640.33	\$672.35	\$705.96	\$741.26
Annual Base Charge	\$1,776.94	\$1,865.79	\$1,959.08	\$2,057.03	\$2,155.14	\$2,257.88	\$2,381.27	\$2,500.33	\$2,625.35	\$2,756.62	\$2,894.45
<b>Total Annual Revenue</b>	<b>\$24,877</b>	<b>\$26,121</b>	<b>\$27,427</b>	<b>\$28,798</b>	<b>\$30,238</b>	<b>\$31,750</b>	<b>\$33,338</b>	<b>\$35,005</b>	<b>\$36,755</b>	<b>\$38,593</b>	<b>\$40,522</b>

2" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	16	16	16	16	16	16	16	16	16	16	16
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>
Quarterly Base Charge (Jan-June)	\$693.42	\$728.09	\$764.49	\$802.72	\$842.86	\$885.00	\$929.25	\$975.71	\$1,024.50	\$1,075.72	\$1,129.51
Quarterly Base Charge (July-Dec)	\$728.09	\$764.49	\$802.72	\$842.86	\$885.00	\$929.25	\$975.71	\$1,024.50	\$1,075.72	\$1,129.51	\$1,185.98
Annual Base Charge	\$2,843.02	\$2,985.17	\$3,134.43	\$3,291.15	\$3,455.71	\$3,628.49	\$3,809.92	\$4,000.41	\$4,200.43	\$4,410.45	\$4,630.98
<b>Total Annual Revenue</b>	<b>\$45,488</b>	<b>\$47,763</b>	<b>\$50,151</b>	<b>\$52,658</b>	<b>\$55,291</b>	<b>\$58,056</b>	<b>\$60,959</b>	<b>\$64,007</b>	<b>\$67,207</b>	<b>\$70,567</b>	<b>\$74,096</b>

3" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	3	3	3	3	3	3	3	3	3	3	3
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>
Quarterly Base Charge (Jan-June)	\$1,386.85	\$1,456.19	\$1,529.00	\$1,605.45	\$1,685.72	\$1,770.01	\$1,858.51	\$1,951.43	\$2,049.01	\$2,151.46	\$2,259.03
Quarterly Base Charge (July-Dec)	\$1,456.19	\$1,529.00	\$1,605.45	\$1,685.72	\$1,770.01	\$1,858.51	\$1,951.43	\$2,049.01	\$2,151.46	\$2,259.03	\$2,371.98
Annual Base Charge	\$5,686.08	\$5,970.38	\$6,268.90	\$6,582.34	\$6,911.46	\$7,257.03	\$7,619.88	\$8,000.88	\$8,400.92	\$8,820.97	\$9,262.02
<b>Total Annual Revenue</b>	<b>\$17,058</b>	<b>\$17,911</b>	<b>\$18,807</b>	<b>\$19,747</b>	<b>\$20,734</b>	<b>\$21,771</b>	<b>\$22,860</b>	<b>\$24,003</b>	<b>\$25,203</b>	<b>\$26,463</b>	<b>\$27,786</b>

4" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	1	1	1	1	1	1	1	1	1	1	1
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
Quarterly Base Charge (Jan-June)	\$2,166.94	\$2,275.29	\$2,389.05	\$2,508.51	\$2,633.93	\$2,765.63	\$2,903.91	\$3,049.11	\$3,201.56	\$3,361.64	\$3,529.72
Quarterly Base Charge (July-Dec)	\$2,275.29	\$2,389.05	\$2,508.51	\$2,633.93	\$2,765.63	\$2,903.91	\$3,049.11	\$3,201.56	\$3,361.64	\$3,529.72	\$3,706.21
Annual Base Charge	\$8,884.46	\$9,328.69	\$9,795.12	\$10,284.88	\$10,799.12	\$11,339.08	\$11,906.03	\$12,501.34	\$13,126.40	\$13,782.72	\$14,471.86
<b>Total Annual Revenue</b>	<b>\$8,884</b>	<b>\$9,329</b>	<b>\$9,795</b>	<b>\$10,285</b>	<b>\$10,799</b>	<b>\$11,339</b>	<b>\$11,906</b>	<b>\$12,501</b>	<b>\$13,126</b>	<b>\$13,783</b>	<b>\$14,472</b>

6" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	0	0	0	0	0	0	0	0	0	0	0
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Quarterly Base Charge (Jan-June)	\$4,333.89	\$4,550.58	\$4,778.11	\$5,017.01	\$5,267.87	\$5,531.26	\$5,807.82	\$6,098.21	\$6,403.12	\$6,723.28	\$7,059.44
Quarterly Base Charge (July-Dec)	\$4,550.58	\$4,778.11	\$5,017.01	\$5,267.87	\$5,531.26	\$5,807.82	\$6,098.21	\$6,403.12	\$6,723.28	\$7,059.44	\$7,412.42
Annual Base Charge	\$17,768.94	\$18,657.38	\$19,590.25	\$20,569.76	\$21,598.25	\$22,678.16	\$23,812.07	\$25,002.67	\$26,252.80	\$27,565.44	\$28,943.72
<b>Total Annual Revenue</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

8" Meter Size	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Existing	0	0	0	0	0	0	0	0	0	0	0
New	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal Customers</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Quarterly Base Charge (Jan-June)	\$6,934.22	\$7,280.93	\$7,644.98	\$8,027.23	\$8,428.59	\$8,850.02	\$9,292.52	\$9,757.14	\$10,245.00	\$10,757.25	\$11,295.11
Quarterly Base Charge (July-Dec)	\$7,280.93	\$7,644.98	\$8,027.23	\$8,428.59	\$8,850.02	\$9,292.52	\$9,757.14	\$10,245.00	\$10,757.25	\$11,295.11	\$11,859.87
Annual Base Charge	\$28,430.30	\$29,851.81	\$31,344.40	\$32,911.62	\$34,557.21	\$36,285.07	\$38,099.32	\$40,004.28	\$42,004.50	\$44,104.72	\$46,309.96
<b>Total Annual Revenue</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>





# Chapter 7

## Analysis of Water and Wastewater Rates and Policy Matters



## 7. Analysis of Water and Wastewater Rates and Policy Matters

### 7.1 Introduction

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To summarize the analysis undertaken thus far, Chapter 2 reviewed capital-related issues and responds to the provincial directives to maintain and upgrade infrastructure to required levels. Chapter 4 provided a review of capital financing options to which water and wastewater reserve contributions will be the predominant basis for financing future capital replacement. Chapter 5 established the 10-year operating forecast of expenditures including an annual capital reserve contribution. The base charge revenues identified in Chapter 6 are to ensure that fixed costs are recovered regardless of the amount of volume used by customers. This chapter will provide for the calculation of the volume rates over the forecast period. These calculations will be based on the net operating expenditures (the variable costs) provided in Chapter 5, divided by the water volumes forecast and wastewater volumes provided in section 1.8.

### 7.2 Water Rates

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Based on the discussion of rate structures provided in section 6.5 and the recommendation to continue with the present structures, the rates are calculated by taking the net recoverable amounts from Table 5-1 (the product of total expenditures less non-rate revenues and deduct the base charge amounts provided in section 6.5) and completes the calculation by dividing them by the volumes resulting in the forecasted rates. This results in a water volume rate that is calculated increase by 5% per year over the forecast period.

With respect to bulk water, the calculations have assumed that the volumes will remain constant over the forecast period and that the proposed rates increase at 5% per year (to reflect the same increases to the water volume rates).

Detailed calculations of the volume rates are provided in Appendix C. A summary of the recommended base charge and volume rates along with the total annual bill for an average residential user who consumes 161 m<sup>3</sup> per year are provided in Table 7-1. Table 7-2 provides the bulk water rate forecast.



Table 7-1  
Township of West Lincoln  
Average Annual Water Bill  
(Based on an Annual Usage of 161 m<sup>3</sup> and 5/8" or 3/4" meter)

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Quarterly Base Charge (Jan-June)	\$37.60	\$39.48	\$41.45	\$43.53	\$45.70	\$47.99	\$50.39	\$52.91	\$55.55	\$58.33	\$61.25
Quarterly Base Charge (July-Dec)	\$39.48	\$41.45	\$43.53	\$45.70	\$47.99	\$50.39	\$52.91	\$55.55	\$58.33	\$61.25	\$64.31
Constant Rate (m <sup>3</sup> ) - January to June	\$1.34	\$1.41	\$1.48	\$1.55	\$1.63	\$1.71	\$1.80	\$1.89	\$1.98	\$2.08	\$2.19
Constant Rate (m <sup>3</sup> ) - July to December	\$1.41	\$1.48	\$1.55	\$1.63	\$1.71	\$1.80	\$1.89	\$1.98	\$2.08	\$2.19	\$2.30
<b>Annual Base Charge Bill</b>	<b>\$154.16</b>	<b>\$161.87</b>	<b>\$169.96</b>	<b>\$178.46</b>	<b>\$187.38</b>	<b>\$196.75</b>	<b>\$206.59</b>	<b>\$216.92</b>	<b>\$227.76</b>	<b>\$239.15</b>	<b>\$251.11</b>
January to June Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
July to December Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
<b>Annual Volume Bill</b>	<b>\$221.38</b>	<b>\$232.69</b>	<b>\$244.32</b>	<b>\$256.54</b>	<b>\$269.36</b>	<b>\$282.83</b>	<b>\$296.97</b>	<b>\$311.82</b>	<b>\$327.41</b>	<b>\$343.78</b>	<b>\$360.97</b>
<b>Total Annual Bill</b>	<b>\$375.54</b>	<b>\$394.55</b>	<b>\$414.28</b>	<b>\$434.99</b>	<b>\$456.74</b>	<b>\$479.58</b>	<b>\$503.56</b>	<b>\$528.74</b>	<b>\$555.18</b>	<b>\$582.93</b>	<b>\$612.08</b>
% Increase - Base Rate		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
% Increase - Volume Rate		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
% Increase - Total Annual Bill		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Table 7-2  
Township of West Lincoln  
Bulk Water Rate Forecast

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Total Bulk Water Billing Recovery</b>											
Total Volume (m <sup>3</sup> ) - January to June	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145
Total Volume (m <sup>3</sup> ) - July to December	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145
<b>Check Total Volume</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>
<b>Bulk Water Rates (\$/m<sup>3</sup>)</b>											
Constant Rate (m <sup>3</sup> ) - January to June	1.81	1.90	2.00	2.10	2.21	2.32	2.44	2.56	2.69	2.82	2.96
Constant Rate (m <sup>3</sup> ) - July to December	1.90	2.00	2.10	2.21	2.32	2.44	2.56	2.69	2.82	2.96	3.11
Total Water Billing Recovery											
January to June	177,642	186,475	196,289	206,103	216,899	227,695	239,473	251,250	264,009	276,767	290,508
July to December	186,475	196,289	206,103	216,899	227,695	239,473	251,250	264,009	276,767	290,508	305,229
<b>Total Water Billing Recovery</b>	<b>364,116</b>	<b>382,764</b>	<b>402,392</b>	<b>423,003</b>	<b>444,595</b>	<b>467,168</b>	<b>490,723</b>	<b>515,259</b>	<b>540,776</b>	<b>567,275</b>	<b>595,737</b>
<b>Annual Percentage Change</b>		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%



## 7.3 Wastewater Rates

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Similar to water, the calculation of the wastewater rates takes the net recoverable amounts from Table 5-2 and completes the calculation by dividing them by the volumes, resulting in the forecast rates. Detailed calculations are provided in Appendix D.

The rate calculations result in a wastewater volume rate that is calculated to increase by 5% in 2021, and subsequent increases of 2% per year over the remainder of the forecast period.

Table 7-3 summarizes the recommended rates for wastewater and provides the average annual bill for a residential customer who uses 161 m<sup>3</sup> per year.



Table 7-3  
Township of West Lincoln  
Average Annual Wastewater Bill  
(Based on an Annual Usage of 161 m<sup>3</sup> and 5/8" or 3/4" meter)

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Quarterly Base Charge (Jan-June)	\$86.68	\$91.01	\$95.56	\$100.34	\$105.36	\$110.62	\$116.15	\$121.96	\$128.06	\$134.46	\$141.19
Quarterly Base Charge (July-Dec)	\$91.01	\$95.56	\$100.34	\$105.36	\$110.62	\$116.15	\$121.96	\$128.06	\$134.46	\$141.19	\$148.25
Constant Rate (m <sup>3</sup> ) - January to June	\$1.73	\$1.82	\$1.86	\$1.89	\$1.93	\$1.97	\$2.01	\$2.05	\$2.09	\$2.13	\$2.18
Constant Rate (m <sup>3</sup> ) - July to December	\$1.82	\$1.86	\$1.89	\$1.93	\$1.97	\$2.01	\$2.05	\$2.09	\$2.13	\$2.18	\$2.22
<b>Annual Base Rate Bill</b>	<b>\$355.38</b>	<b>\$373.14</b>	<b>\$391.80</b>	<b>\$411.39</b>	<b>\$431.96</b>	<b>\$453.56</b>	<b>\$476.23</b>	<b>\$500.04</b>	<b>\$525.05</b>	<b>\$551.30</b>	<b>\$578.86</b>
January to June Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
July to December Volume (m <sup>3</sup> )	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
<b>Annual Volume Bill</b>	<b>\$285.78</b>	<b>\$295.95</b>	<b>\$301.87</b>	<b>\$307.91</b>	<b>\$314.06</b>	<b>\$320.35</b>	<b>\$326.75</b>	<b>\$333.29</b>	<b>\$339.95</b>	<b>\$346.75</b>	<b>\$353.69</b>
<b>Total Annual Bill</b>	<b>\$641.16</b>	<b>\$669.09</b>	<b>\$693.67</b>	<b>\$719.29</b>	<b>\$746.02</b>	<b>\$773.90</b>	<b>\$802.99</b>	<b>\$833.33</b>	<b>\$865.00</b>	<b>\$898.05</b>	<b>\$932.55</b>
% Increase - Base Rate		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
% Increase - Volume Rate		5%	2%	2%	2%	2%	2%	2%	2%	2%	2%
% Increase - Total Annual Bill		5%	4%	4%	4%	4%	4%	4%	4%	4%	4%



# Chapter 8

## Recommendations



## 8. Recommendations

As presented within this report, capital and operating expenditures have been identified and forecast over a ten-year period for water and wastewater services.

Based upon the foregoing, the following recommendations are identified for consideration by Township 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 2-1 and 2-2 and the associated Capital Financing Plan as set out in Tables 4-1 and 4-2.
3. That Council consider the base charges provided in Table 6-1 for water and Table 6-2 for wastewater.
4. That Council consider the volume rates provided in Table 7-1 for water, Table 7-2 for bulk water, and Table 7-3 for wastewater.



# Appendices





# Appendix A

## Water System Inventory Data



## Appendix A: Water System Inventory Data

Detailed water system inventory information available under separate cover (Technical Appendix).



# Appendix B

## Wastewater System Inventory Data



## Appendix B: Wastewater System Inventory Data

Detailed water system inventory information available under separate cover (Technical Appendix).



# Appendix C

## Detailed Water Rate Calculations



# Appendix C: Detailed Water Rate Calculations

Table C-1  
Township of West Lincoln  
Capital Budget Forecast (Uninflated \$)

Description	Budget 2020	Total	Forecast									
			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Capital Expenditures</b>												
<b>Lifecycle:</b>												
Water Meters - Replacement Program	30,000	340,000	30,000	50,000	30,000	30,000	50,000	30,000	60,000	30,000	30,000	
Rolling Stock - 2025 - 3/4 Ton Van - To replace 2007 Chevrolet		38,500					38,500					
Main - Replace - Design - 2020 - Brock St - From: RR 20 To: North End	35,000	-										
Facilities - 2027 - Bulk Water Station - Replace roof shingles		10,000							10,000			
Main - Upsize and Replace - Constuction - 2020 - Griffin St. N - From: RR20 and RR14 Intersection	160,000	-										
Main - Replace - Construction - 2022 - Brock St - From: RR 20 To: North End		495,000		495,000								
Main - Replace - Construction - 2029 - Wade Road N - From: West Street To: South Limit		700,000									700,000	
Equipment - Miscellaneous Water Equipment	5,000	45,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	
Water Meters - New Installation	31,800	332,400	32,800	33,800	34,800	35,800	36,900	38,000	39,100	40,200	41,000	
Facilities - 2027 - Bulk Water Building - New Building		300,000							300,000			
<b>Studies:</b>												
Operating-Study - Water Loss Study		50,000	50,000									
Operating-Study - Water Distribution System - Leak detection program		250,000				50,000	50,000	50,000	50,000	50,000		
Operating-Other - Water Loss Program		145,000					70,000	75,000				
<b>Growth Related:</b>												
Main - Replace - Construction - 2020 - West Street - From: South Grimsby Rd 5 To: Wade Rd	200,000	-										
Main - Upsize and Replace - Design - 2022 - Spring Creek Rd - From: Station St To: Hornak Rd		12,500		12,500								
Main - New - Design - 2022 - Spring Creek Rd - From: Hornak Rd To: SG Rd 5		63,200		63,200								
Main - New - Design - 2022 - Spring Creek Rd - From: SG Rd 5 To: SG Rd 6		38,000		38,000								
Main - New - Design - 2022 - South Grimsby Rd 5 - From: Spring Creek Rd To: Northridge Dr		38,600		38,600								
Main - Upsize and Replace - Design - 2022 - South Grimsby Rd 5 - From: Northridge Dr To: HWY 20		27,000		27,000								
Main - New - Design - 2022 - South Grimsby Rd 6 - Extension - From: Spring Creek Rd To: HWY 20		27,000		27,000								
Main - Upsize and Replace - Constuction - 2023 - Spring Creek Rd - From: Station St To: Hornak Rd		117,500			117,500							
Main - New - Construction - 2023 - SG RD 5 - From: Spring Creek Rd To: Northridge Dr		441,000			441,000							
Main - Upsize and Replace - Constuction - 2023 - SG RD 5 - From: Northridge Dr To: HWY 20		315,000			315,000							
Main - New - Construction - 2023 - Spring Creek Rd - From: Hornak Rd To: SG Rd 5		758,200			758,200							
Main - New - Construction - 2023 - Spring Creek Rd - From: SG Rd 5 To: SG Rd 6		392,200			392,200							
Main - New - Construction - 2023 - SG RD 6 - From: Spring Creek Rd To: HWY 20		355,000			355,000							
Main - Upsize and Replace - Design - 2023 - Van Wouderberg Way - From: Station St To: West Boundary Limits		39,250			39,250							
Main - Upsize and Replace - Constuction - 2024 - Van Wouderberg Way - From: Station St To: West Boundary Limits		353,500				353,500						
Main - Upsize and Replace - Design - 2024 - St. Catherines St - From: Industrial Park Rd To: Frank St		65,400				65,400						
Main - New - Design - 2024 - St. Catherines St - From: Frank St To: Griffin St		7,000				7,000						
Main - Upsize and Replace - Design - 2024 - Griffin St. N - From: Griffin St To: Station & West St		16,000				16,000						
Main - New - Construction - 2024 - Industrial Park Rd - From: London Rd To: Spring Creek Rd		565,400				565,400						
Main - Upsize and Replace - Constuction - 2025 - St. Catherines St. - From: Industrial Park Rd To: Frank St		719,600					719,600					
Main - New - Construction - 2025 - St. Catherines St. - From: Frank St To: Griffin St		108,000					108,000					
Main - Upsize and Replace - Constuction - 2025 - Griffin St. N - From: Griffin St To: Station St		134,000					134,000					
Main - New - Construction - 2025 - Industrial Park Rd - From: Pearson Rd To: Urban Boundary		399,800					399,800					
Main - Replace - Design - 2026 - Colver St - From: RR14 To: Wade Rd		42,200						42,200				
Main - Replace - Construction - 2027 - Colver St - From: RR14 To: Wade Rd		610,000							610,000			
<b>Total Capital Expenditures</b>	<b>461,800</b>	<b>8,351,250</b>	<b>117,800</b>	<b>790,100</b>	<b>2,487,950</b>	<b>1,128,100</b>	<b>1,611,800</b>	<b>240,200</b>	<b>1,074,100</b>	<b>125,200</b>	<b>776,000</b>	<b>-</b>



Table C-2  
Township of West Lincoln  
Capital Budget Forecast (Inflated \$)

Description	Budget 2020	Total	Forecast									
			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Capital Expenditures</b>												
<b>Lifecycle:</b>												
Water Meters - Replacement Program	30,000	376,000	31,000	52,000	32,000	32,000	55,000	34,000	69,000	35,000	36,000	-
Rolling Stock - 2025 - 3/4 Ton Van - To replace 2007 Chevrolet	-	43,000	-	-	-	-	43,000	-	-	-	-	-
Main - Replace - Design - 2020 - Brock St - From: RR 20 - To: North End	35,000	-	-	-	-	-	-	-	-	-	-	-
Facilities - 2027 - Bulk Water Station - Replace roof shingles	-	11,000	-	-	-	-	-	-	11,000	-	-	-
Main - Upsize and Replace - Construction - 2020 - Griffin St. N - From: RR20 and RR14 Intersection	160,000	-	-	-	-	-	-	-	-	-	-	-
Main - Replace - Construction - 2022 - Brock St - From: RR 20 - To: North End	-	515,000	-	515,000	-	-	-	-	-	-	-	-
Main - Replace - Construction - 2029 - Wade Road N - From: West Street - To: South Limit	-	837,000	-	-	-	-	-	-	-	-	837,000	-
Equipment - Miscellaneous Water Equipment	5,000	50,000	5,000	5,000	5,000	5,000	6,000	6,000	6,000	6,000	6,000	-
Water Meters - New Installation	31,800	369,000	33,000	35,000	37,000	39,000	41,000	43,000	45,000	47,000	49,000	-
Facilities - 2027 - Bulk Water Building - New Building	-	345,000	-	-	-	-	-	-	345,000	-	-	-
<b>Studies:</b>												
Operating-Study - Water Loss Study	-	51,000	51,000	-	-	-	-	-	-	-	-	-
Operating-Study - Water Distribution System - Leak detection program	-	281,000	-	-	-	54,000	55,000	56,000	57,000	59,000	-	-
Operating-Other - Water Loss Program	-	161,000	-	-	-	-	77,000	84,000	-	-	-	-
<b>Growth Related:</b>												
Main - Replace - Construction - 2020 - West Street - From: South Grimsby Rd 5 - To: Wade Rd	200,000	-	-	-	-	-	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2022 - Spring Creek Rd - From: Station St - To: Hornak Rd	-	13,000	-	13,000	-	-	-	-	-	-	-	-
Main - New - Design - 2022 - Spring Creek Rd - From: Hornak Rd - To: SG Rd 5	-	66,000	-	66,000	-	-	-	-	-	-	-	-
Main - New - Design - 2022 - Spring Creek Rd - From: SG Rd 5 - To: SG Rd 6	-	40,000	-	40,000	-	-	-	-	-	-	-	-
Main - New - Design - 2022 - South Grimsby Rd 5 - From: Spring Creek Rd - To: Northridge Dr	-	40,000	-	40,000	-	-	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2022 - South Grimsby Rd 5 - From: Northridge Dr - To: HWY 20	-	28,000	-	28,000	-	-	-	-	-	-	-	-
Main - New - Design - 2022 - South Grimsby Rd 6 - Extension - From: Spring Creek Rd - To: HWY 20	-	28,000	-	28,000	-	-	-	-	-	-	-	-
Main - Upsize and Replace - Construction - 2023 - Spring Creek Rd - From: Station St - To: Hornak Rd	-	125,000	-	-	125,000	-	-	-	-	-	-	-
Main - New - Construction - 2023 - SG RD 5 - From: Spring Creek Rd - To: Northridge Dr	-	468,000	-	-	468,000	-	-	-	-	-	-	-
Main - Upsize and Replace - Construction - 2023 - SG RD 5 - From: Northridge Dr - To: HWY 20	-	334,000	-	-	334,000	-	-	-	-	-	-	-
Main - New - Construction - 2023 - Spring Creek Rd - From: Hornak Rd - To: SG Rd 5	-	805,000	-	-	805,000	-	-	-	-	-	-	-
Main - New - Construction - 2023 - Spring Creek Rd - From: SG Rd 5 - To: SG Rd 6	-	416,000	-	-	416,000	-	-	-	-	-	-	-
Main - New - Construction - 2023 - SG RD 6 - From: Spring Creek Rd - To: HWY 20	-	377,000	-	-	377,000	-	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2023 - Van Wouderberg Way - From: Station St - To: West Boundary Limits	-	42,000	-	-	42,000	-	-	-	-	-	-	-
Main - Upsize and Replace - Construction - 2024 - Van Wouderberg Way - From: Station St - To: West Boundary Limits	-	383,000	-	-	-	383,000	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2024 - St. Catherine's St - From: Industrial Park Rd - To: Frank St	-	71,000	-	-	-	71,000	-	-	-	-	-	-
Main - New - Design - 2024 - St. Catherine's St - From: Frank St - To: Griffin St	-	8,000	-	-	-	8,000	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2024 - Griffin St. N - From: Griffin St - To: Station & West St	-	17,000	-	-	-	17,000	-	-	-	-	-	-
Main - New - Construction - 2024 - Industrial Park Rd - From: London Rd - To: Spring Creek Rd	-	612,000	-	-	-	612,000	-	-	-	-	-	-
Main - Upsize and Replace - Construction - 2025 - St. Catherine's St - From: Industrial Park Rd - To: Frank St	-	794,000	-	-	-	-	794,000	-	-	-	-	-
Main - New - Construction - 2025 - St. Catherine's St - From: Frank St - To: Griffin St	-	119,000	-	-	-	-	119,000	-	-	-	-	-
Main - Upsize and Replace - Construction - 2025 - Griffin St. N - From: Griffin St - To: Station St	-	148,000	-	-	-	-	148,000	-	-	-	-	-
Main - New - Construction - 2025 - Industrial Park Rd - From: Pearson Rd - To: Urban Boundary	-	441,000	-	-	-	-	441,000	-	-	-	-	-
Main - Replace - Design - 2026 - Colver St - From: RR14 - To: Wade Rd	-	48,000	-	-	-	-	-	48,000	-	-	-	-
Main - Replace - Construction - 2027 - Colver St - From: RR14 - To: Wade Rd	-	701,000	-	-	-	-	-	-	701,000	-	-	-
<b>Total Capital Expenditures</b>	<b>461,800</b>	<b>9,163,000</b>	<b>120,000</b>	<b>822,000</b>	<b>2,641,000</b>	<b>1,221,000</b>	<b>1,779,000</b>	<b>271,000</b>	<b>1,234,000</b>	<b>147,000</b>	<b>928,000</b>	<b>-</b>
<b>Capital Financing</b>												
Provincial/Federal Grants	-	-	-	-	-	-	-	-	-	-	-	-
Development Charges Reserve Fund	100,000	4,272,456	-	160,929	1,914,026	851,500	971,500	24,000	350,500	-	-	-
Non-Growth Related Debt Service Requirements	-	1,096,474	-	-	726,974	369,500	-	-	-	-	-	-
Growth Related Debt Service Requirements	-	-	-	-	-	-	-	-	-	-	-	-
Operating Contributions	-	-	-	-	-	-	-	-	-	-	-	-
Lifecycle Reserve Fund	-	-	-	-	-	-	-	-	-	-	-	-
Water Reserve	361,800	3,794,071	120,000	661,071	-	-	807,500	247,000	883,500	147,000	928,000	-
<b>Total Capital Financing</b>	<b>461,800</b>	<b>9,163,000</b>	<b>120,000</b>	<b>822,000</b>	<b>2,641,000</b>	<b>1,221,000</b>	<b>1,779,000</b>	<b>271,000</b>	<b>1,234,000</b>	<b>147,000</b>	<b>928,000</b>	<b>-</b>



**Table C-3**  
**Township of West Lincoln**  
**Schedule of Non-Growth Related Debenture Repayments (Inflated \$)**

Debenture Year	2020	Principal (Inflated)	Forecast									
			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2021		-	-	-	-	-	-	-	-	-	-	-
2022		-	-	-	-	-	-	-	-	-	-	-
2023		726,974	-	-	-	50,000	50,000	50,000	50,000	50,000	50,000	50,000
2024		369,500	-	-	-	-	25,414	25,414	25,414	25,414	25,414	25,414
2025		-	-	-	-	-	-	-	-	-	-	-
2026		-	-	-	-	-	-	-	-	-	-	-
2027		-	-	-	-	-	-	-	-	-	-	-
2028		-	-	-	-	-	-	-	-	-	-	-
2029		-	-	-	-	-	-	-	-	-	-	-
2030		-	-	-	-	-	-	-	-	-	-	-
<b>Total Annual Debt Charges</b>	-	<b>1,096,474</b>	-	-	-	50,000	75,414	75,414	75,414	75,414	75,414	75,414

**Table C-4**  
**Township of West Lincoln**  
**Schedule of Growth Related Debenture Repayments**

Debenture Year	2020	Principal (Inflated)	Forecast									
			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2021		-	-	-	-	-	-	-	-	-	-	-
2022		-	-	-	-	-	-	-	-	-	-	-
2023		-	-	-	-	-	-	-	-	-	-	-
2024		-	-	-	-	-	-	-	-	-	-	-
2025		-	-	-	-	-	-	-	-	-	-	-
2026		-	-	-	-	-	-	-	-	-	-	-
2027		-	-	-	-	-	-	-	-	-	-	-
2028		-	-	-	-	-	-	-	-	-	-	-
2029		-	-	-	-	-	-	-	-	-	-	-
2030		-	-	-	-	-	-	-	-	-	-	-
<b>Total Annual Debt Charges</b>	-	-	-	-	-	-	-	-	-	-	-	-

**Table C-5**  
**Township of West Lincoln**  
**Water Capital Reserve Continuity (Inflated \$)**

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	567,764	380,647	489,981	106,390	437,733	738,679	201,881	380,713	14,272	484,921	283,275
Transfer from Operating	239,683	229,333	277,480	331,343	300,947	345,702	425,832	517,059	617,649	726,354	844,462
Transfer to Capital	361,800	120,000	661,071	-	-	807,500	247,000	883,500	147,000	928,000	-
Transfer to Operating	65,000	-	-	-	-	75,000	-	-	-	-	-
<b>Closing Balance</b>	<b>380,647</b>	<b>489,981</b>	<b>106,390</b>	<b>437,733</b>	<b>738,679</b>	<b>201,881</b>	<b>380,713</b>	<b>14,272</b>	<b>484,921</b>	<b>283,275</b>	<b>1,127,737</b>

**Table C-6**  
**Township of West Lincoln**  
**Water Development Charges Reserve Fund Continuity (Inflated \$)**

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	532,026	682,736	943,315	1,075,700	(545,541)	(1,082,401)	(1,718,156)	(1,364,685)	(1,230,309)	(847,756)	(386,982)
Development Charge Proceeds	237,322	242,083	272,222	303,482	335,864	369,434	404,229	450,176	459,175	468,362	477,692
Transfer to Capital	100,000	-	160,929	1,914,026	851,500	971,500	24,000	350,500	-	-	-
Transfer to Operating	-	-	-	-	-	-	-	-	-	-	-
<b>Closing Balance</b>	<b>669,349</b>	<b>924,819</b>	<b>1,054,608</b>	<b>(534,844)</b>	<b>(1,061,177)</b>	<b>(1,684,467)</b>	<b>(1,337,926)</b>	<b>(1,265,009)</b>	<b>(831,134)</b>	<b>(379,394)</b>	<b>90,710</b>
Interest	13,387	18,496	21,092	(10,697)	(21,224)	(33,689)	(26,759)	(25,300)	(16,623)	(7,588)	1,814
Required from Development Charges	100,000	-	160,929	1,914,026	851,500	971,500	24,000	350,500	-	-	-





**Table C-7**  
**Township of West Lincoln**  
**Operating Budget Forecast (Inflated \$)**

Description	Budget 2020	Forecast									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Expenditures</b>											
<b>Operating Costs</b>											
WAT-UTLY-SALARY	56,600	100,200	102,200	104,200	148,800	151,800	154,800	157,900	161,100	164,300	167,600
WAT-UTLY-WAGES	91,800	93,600	95,500	97,400	99,300	101,300	103,300	105,400	107,500	109,700	111,900
WAT-UTLY-WAGES OT	18,400	18,800	19,200	19,600	20,000	20,400	20,800	21,200	21,600	22,000	22,400
WAT-UTLY-CPP	6,000	6,100	6,200	6,300	6,400	6,500	6,600	6,700	6,800	6,900	7,000
WAT-UTLY-EI	2,500	2,600	2,700	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500
WAT-UTLY-EHT	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200
WAT-UTLY-WSIB	4,700	4,800	4,900	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700
WAT-UTLY-OMERS	15,000	15,300	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700	18,100
WAT-UTLY-GROUP BENEFITS	18,400	18,800	19,200	19,600	20,000	20,400	20,800	21,200	21,600	22,000	22,400
WAT-UTLY-TRAINING	9,800	10,100	10,400	10,700	11,000	11,300	11,600	11,900	12,300	12,700	13,100
WAT-UTLY-OFFICE SUPPLIES	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
WAT-UTLY-POSTAGE	4,700	4,800	4,900	5,000	5,200	5,400	5,600	5,800	6,000	6,200	6,400
WAT-UTLY-UNIFORMS	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000	3,100
WAT-UTLY-SMALL TOOLS	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	4,100
WAT-UTLY-FUEL	1,400	1,500	1,600	1,700	1,800	1,900	2,000	2,100	2,200	2,300	2,400
PURCHASED WATER FROM REGION	752,997	800,328	850,510	904,542	963,626	1,028,221	1,098,825	1,176,143	1,259,542	1,348,341	1,442,872
WAT-UTLY-R&M EQUIPMENT	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000
WAT-UTLY-R&M ENVIRON INFRSTRCT	31,700	32,700	33,700	34,700	35,700	36,800	37,900	39,000	40,200	41,400	42,600
WAT-UTLY-WATER	2,500	2,600	2,700	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500
WAT-UTLY-COMMUNICATION	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
WAT-UTLY-INSURANCE	20,800	21,400	22,000	22,700	23,400	24,100	24,800	25,500	26,300	27,100	27,900
WAT-UTLY-SOFTWARE FEES	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
WAT-UTLY-CONSULTANT FEES	10,400	10,700	11,000	11,300	11,600	11,900	12,300	12,700	13,100	13,500	13,900
WAT-UTLY-OUTSIDE SERVICES	23,600	24,300	25,000	25,800	26,600	27,400	28,200	29,000	29,900	30,800	31,700
WAT-UTLY-EQUIPMENT ALLOCATIN	21,400	22,000	22,700	23,400	24,100	24,800	25,500	26,300	27,100	27,900	28,700
WAT-UTLY-ALLOCTN OF PRGM SUP	287,500	296,100	305,000	314,200	323,600	333,300	343,300	353,600	364,200	375,100	386,400
WAT-BLK-R&M FACILITIES	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000
WAT-BLK-R&M ENVIRON INFRSTRCT	2,700	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700
WAT-BLK-HYDRO	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000
WAT-BLK-COMMUNICATION	900	900	900	900	900	900	900	900	900	900	900
WAT-BLK-OUTSIDE SERVICES	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400	4,500	4,600
WAT-BLK-EQUIPMENT ALLOCATIN	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
WAT-UTLY-ADVERTISING	500	500	500	500	500	500	500	500	500	500	500
WAT-DIST-WATER RATE STUDY & FIN PLAN	65,000	-	-	-	-	75,000	-	-	-	-	-
<b>Sub Total Operating</b>	<b>1,472,697</b>	<b>1,515,028</b>	<b>1,584,110</b>	<b>1,657,542</b>	<b>1,778,926</b>	<b>1,939,721</b>	<b>1,956,925</b>	<b>2,056,443</b>	<b>2,162,842</b>	<b>2,275,041</b>	<b>2,393,572</b>
<b>Capital-Related</b>											
Existing Debt (Principal) - Growth Related	-	-	-	-	-	-	-	-	-	-	-
Existing Debt (Interest) - Growth Related	-	-	-	-	-	-	-	-	-	-	-
New Growth Related Debt (Principal)	-	-	-	-	-	-	-	-	-	-	-
New Growth Related Debt (Interest)	-	-	-	-	-	-	-	-	-	-	-
Existing Debt (Principal) - Non-Growth Related	-	-	-	-	-	-	-	-	-	-	-
Existing Debt (Interest) - Non-Growth Related	-	-	-	-	-	-	-	-	-	-	-
New Non-Growth Related Debt (Principal)	-	-	-	-	26,374	40,636	41,957	43,320	44,728	46,182	47,683
New Non-Growth Related Debt (Interest)	-	-	-	-	23,627	34,778	33,458	32,094	30,686	29,232	27,731
Transfer to Capital	-	-	-	-	-	-	-	-	-	-	-
Transfer to Capital Reserve	239,683	229,333	277,480	331,343	300,947	345,702	425,832	517,059	617,649	726,354	844,462
<b>Sub Total Capital Related</b>	<b>239,683</b>	<b>229,333</b>	<b>277,480</b>	<b>331,343</b>	<b>350,947</b>	<b>421,116</b>	<b>501,246</b>	<b>592,473</b>	<b>693,064</b>	<b>801,768</b>	<b>919,876</b>
<b>Total Expenditures</b>	<b>1,712,380</b>	<b>1,744,362</b>	<b>1,861,590</b>	<b>1,988,885</b>	<b>2,129,873</b>	<b>2,360,837</b>	<b>2,458,171</b>	<b>2,648,916</b>	<b>2,855,906</b>	<b>3,076,809</b>	<b>3,313,447</b>
<b>Revenues</b>											
Base Charge	424,165	457,838	493,817	533,320	577,824	627,847	683,947	746,951	815,958	889,998	969,402
Other Revenue	14,000	-	-	-	-	-	-	-	-	-	-
WAT-UTLY-P&I	47,600	47,600	47,600	47,600	47,600	47,600	47,600	47,600	47,600	47,600	47,600
WAT-UTLY-WATER SERVICES FEES	364,116	382,764	402,392	423,003	444,595	467,168	490,723	515,259	540,776	567,275	595,737
Contributions from Development Charges Reserve Fund	-	-	-	-	-	-	-	-	-	-	-
Contributions from Reserves / Reserve Funds	65,000	-	-	-	-	75,000	-	-	-	-	-
<b>Total Operating Revenue</b>	<b>914,881</b>	<b>888,201</b>	<b>943,809</b>	<b>1,003,922</b>	<b>1,070,019</b>	<b>1,217,614</b>	<b>1,222,270</b>	<b>1,309,810</b>	<b>1,404,334</b>	<b>1,504,873</b>	<b>1,612,740</b>
<b>Water Billing Recovery - Operating</b>	<b>797,498</b>	<b>856,160</b>	<b>917,781</b>	<b>984,962</b>	<b>1,059,854</b>	<b>1,143,223</b>	<b>1,235,901</b>	<b>1,339,106</b>	<b>1,451,572</b>	<b>1,571,936</b>	<b>1,700,708</b>
<b>Water Billing Recovery - Total</b>	<b>797,498</b>	<b>856,160</b>	<b>917,781</b>	<b>984,962</b>	<b>1,059,854</b>	<b>1,143,223</b>	<b>1,235,901</b>	<b>1,339,106</b>	<b>1,451,572</b>	<b>1,571,936</b>	<b>1,700,708</b>



Table C-8  
Township of West Lincoln  
Bulk Water Rate Forecast (Inflated \$)

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Total Bulk Water Billing Recovery</b>											
Total Volume (m <sup>3</sup> ) - January to June	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145
Total Volume (m <sup>3</sup> ) - July to December	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145	98,145
<b>Check Total Volume</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>	<b>196,289</b>
<b>Bulk Water Rates (\$/m<sup>3</sup>)</b>											
Constant Rate (m <sup>3</sup> ) - January to June	1.81	1.90	2.00	2.10	2.21	2.32	2.44	2.56	2.69	2.82	2.96
Constant Rate (m <sup>3</sup> ) - July to December	1.90	2.00	2.10	2.21	2.32	2.44	2.56	2.69	2.82	2.96	3.11
Total Water Billing Recovery											
January to June	177,642	186,475	196,289	206,103	216,899	227,695	239,473	251,250	264,009	276,767	290,508
July to December	186,475	196,289	206,103	216,899	227,695	239,473	251,250	264,009	276,767	290,508	305,229
<b>Total Water Billing Recovery</b>	<b>364,116</b>	<b>382,764</b>	<b>402,392</b>	<b>423,003</b>	<b>444,595</b>	<b>467,168</b>	<b>490,723</b>	<b>515,259</b>	<b>540,776</b>	<b>567,275</b>	<b>595,737</b>
<b>Annual Percentage Change</b>		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

Table C-9  
Township of West Lincoln  
Water Rate Forecast (Inflated \$)

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Total Water Billing Recovery</b>	<b>797,498</b>	<b>856,160</b>	<b>917,781</b>	<b>984,962</b>	<b>1,059,854</b>	<b>1,143,223</b>	<b>1,235,901</b>	<b>1,339,106</b>	<b>1,451,572</b>	<b>1,571,936</b>	<b>1,700,708</b>
<b>Total Water Billing Recovery</b>											
Total Volume (m <sup>3</sup> ) - January to June	290,000	296,198	302,397	309,078	316,742	325,387	335,015	345,706	356,895	368,085	379,274
Total Volume (m <sup>3</sup> ) - July to December	290,000	296,198	302,397	309,078	316,742	325,387	335,015	345,706	356,895	368,085	379,274
<b>Check Total Volume</b>	<b>579,999</b>	<b>592,396</b>	<b>604,793</b>	<b>618,156</b>	<b>633,483</b>	<b>650,775</b>	<b>670,030</b>	<b>691,411</b>	<b>713,790</b>	<b>736,169</b>	<b>758,548</b>
<b>Water Rates (\$/m<sup>3</sup>)</b>											
Constant Rate (m <sup>3</sup> ) - January to June	1.34	1.41	1.48	1.55	1.63	1.71	1.80	1.89	1.98	2.08	2.19
Constant Rate (m <sup>3</sup> ) - July to December	1.41	1.48	1.55	1.63	1.71	1.80	1.89	1.98	2.08	2.19	2.30
Total Water Billing Recovery											
January to June	388,599	417,639	447,698	480,469	517,002	557,670	602,879	653,223	708,084	766,798	829,614
July to December	408,899	438,521	470,083	504,493	542,852	585,553	633,023	685,884	743,488	805,138	871,094
<b>Total Water Billing Recovery</b>	<b>797,499</b>	<b>856,160</b>	<b>917,781</b>	<b>984,962</b>	<b>1,059,854</b>	<b>1,143,223</b>	<b>1,235,901</b>	<b>1,339,106</b>	<b>1,451,572</b>	<b>1,571,936</b>	<b>1,700,708</b>
<b>Annual Percentage Change</b>		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%



# Appendix D

## Detailed Wastewater Rate Calculations



# Appendix D: Detailed Wastewater Rate Calculations

Table D-1  
Township of West Lincoln  
Capital Budget Forecast (Uninflated \$)

Description	Budget 2020	Total	Forecast									
			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Capital Expenditures</b>												
<b>Lifecycle:</b>		-										
Equipment - Miscellaneous Wastewater Equipment	5,000	45,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	
Equipment - 2021 - Smoke Tester - To replace 2006 Hurco		4,200	4,200									
<b>Studies:</b>		-										
Operating-Study - Pollution Control Plan - CSO Study - Extraneous Flow Reduction Program		130,000								130,000		
Operating-Study - 2020 - Condition Assessments for Sewers	200,000	-										
<b>New/Growth Related:</b>		-										
Main - Upsize and Replace - Constuction - 2020 - Wade Road N - From: HWY 20 West St To: South Limit	600,000	-										
Main - Upsize and Replace - Constuction - 2020 - West Street - From: South Grimsby Rd 5 To: Wade Street N	150,000	-										
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works		200,000	200,000									
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works		100,000		100,000								
Operating-Study - Extraneous Flow Reduction Program - Flow Monitoring Study		115,000		115,000								
Operating-Study - Pollution Control Plan - CSO Study - Extraneous Flow Reduction Program		120,000			120,000							
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works		100,000			100,000							
Main - Upsize and Replace - Design - 2023 - Hornak Rd & Van Woudenberg Way - From: Station St (MH 167) To: Van Woudenberg Way (MH 340)		35,000			35,000							
Main - Upsize and Replace - Design - 2023 - Van Woudenberg Way - From: Hornak Rd (MH 454) To: Las Rd (MH 340)		22,000			22,000							
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works		100,000				100,000						
Main - Upsize and Replace - Constuction - 2024 - Van Woudenberg Way/Hornak Rd - From: Hornak Rd (MH 454) To: Las Rd (MH 340)		352,000				352,000						
Main - Upsize and Replace - Constuction - 2024 - Hornak Rd - From: Station St (MH 167) To: Van Woudenberg Way (MH 340)		550,000				550,000						
Main - New - Construction - 2025 - Industrial Park Rd - From: Pearson Rd To: Urban Boundary		673,100					673,100					
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works		100,000					100,000					
Main - Upsize and Replace - Design - 2026 - Anderson Court - From: MH 230 To: MH 1		22,000						22,000				
Main - Upsize and Replace - Constuction - 2027 - Anderson Court - From: MH 230 To: MH 1		332,000							332,000			
<b>Total Capital Expenditures</b>	<b>955,000</b>	<b>3,000,300</b>	<b>209,200</b>	<b>220,000</b>	<b>282,000</b>	<b>1,007,000</b>	<b>778,100</b>	<b>27,000</b>	<b>337,000</b>	<b>135,000</b>	<b>5,000</b>	<b>-</b>



**Table D-2**  
**Township of West Lincoln**  
**Capital Budget Forecast (Inflated \$)**

Description	Budget 2020	Total	Forecast									
			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Capital Expenditures</b>												
<b>Lifecycle:</b>												
Equipment - Miscellaneous Wastewater Equipment	5,000	50,000	5,000	5,000	5,000	5,000	6,000	6,000	6,000	6,000	6,000	-
Equipment - 2021 - Smoke Tester - To replace 2006 Hurco	-	4,000	4,000	-	-	-	-	-	-	-	-	-
<b>Studies:</b>												
Operating-Study - Pollution Control Plan - CSO Study - Extraneous Flow Reduction Program	-	152,000	-	-	-	-	-	-	-	152,000	-	-
Operating-Study - 2020 - Condition Assessments for Sewers	200,000	-	-	-	-	-	-	-	-	-	-	-
<b>New/Growth Related:</b>												
Main - Upsize and Replace - Constuction - 2020 - Wade Road N - From: HWY 20 West St. To: South Limit	600,000	-	-	-	-	-	-	-	-	-	-	-
Main - Upsize and Replace - Constuction - 2020 - West Street - From: South Grimsby Rd 5 To: Wade Street N	150,000	-	-	-	-	-	-	-	-	-	-	-
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	-	204,000	204,000	-	-	-	-	-	-	-	-	-
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	-	104,000	-	104,000	-	-	-	-	-	-	-	-
Operating-Study - Extraneous Flow Reduction Program - Flow Monitoring Study	-	120,000	-	120,000	-	-	-	-	-	-	-	-
Operating-Study - Pollution Control Plan - CSO Study - Extraneous Flow Reduction Program	-	127,000	-	-	127,000	-	-	-	-	-	-	-
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	-	106,000	-	-	106,000	-	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2023 - Hornak Rd & Van Woudenberg Way - From: Station St (MH 167) To: Van Woudenberg Way (MH 340)	-	37,000	-	-	37,000	-	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2023 - Van Woudenberg Way - From: Hornak Rd (MH 454) To: Las Rd (MH 340)	-	23,000	-	-	23,000	-	-	-	-	-	-	-
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	-	108,000	-	-	-	108,000	-	-	-	-	-	-
Main - Upsize and Replace - Constuction - 2024 - Van Woudenberg Way/Hornak Rd - From: Hornak Rd (MH 454) To: Las Rd (MH 340)	-	381,000	-	-	-	381,000	-	-	-	-	-	-
Main - Upsize and Replace - Constuction - 2024 - Hornak Rd - From: Station St (MH 167) To: Van Woudenberg Way (MH 340)	-	595,000	-	-	-	595,000	-	-	-	-	-	-
Main - New - Constuction - 2025 - Industrial Park Rd - From: Pearson Rd To: Urban Boundary	-	743,000	-	-	-	-	743,000	-	-	-	-	-
Operating-Other - Inflow & Infiltration Reduction Program - Remedial Property Disconnection Works	-	110,000	-	-	-	-	110,000	-	-	-	-	-
Main - Upsize and Replace - Design - 2026 - Anderson Court - From: MH 230 To: MH 1	-	25,000	-	-	-	-	-	25,000	-	-	-	-
Main - Upsize and Replace - Constuction - 2027 - Anderson Court - From: MH 230 To: MH 1	-	381,000	-	-	-	-	-	-	381,000	-	-	-
<b>Total Capital Expenditures</b>	<b>955,000</b>	<b>3,270,000</b>	<b>213,000</b>	<b>229,000</b>	<b>298,000</b>	<b>1,089,000</b>	<b>859,000</b>	<b>31,000</b>	<b>387,000</b>	<b>158,000</b>	<b>6,000</b>	<b>-</b>
<b>Capital Financing</b>												
Provincial/Federal Grants	100,000	-										
Development Charges Reserve Fund	375,000	1,782,932	63,240	68,762	102,230	521,480	777,100	12,500	190,500	47,120	-	-
Non-Growth Related Debenture Requirements	-	-	-	-	-	-	-	-	-	-	-	-
Growth Related Debenture Requirements	-	-	-	-	-	-	-	-	-	-	-	-
Operating Contributions	-	-	-	-	-	-	-	-	-	-	-	-
Lifecycle Reserve Fund	-	-	-	-	-	-	-	-	-	-	-	-
Wastewater Reserve	480,000	1,487,068	149,760	160,238	195,770	567,520	81,900	18,500	196,500	110,880	6,000	-
<b>Total Capital Financing</b>	<b>955,000</b>	<b>3,270,000</b>	<b>213,000</b>	<b>229,000</b>	<b>298,000</b>	<b>1,089,000</b>	<b>859,000</b>	<b>31,000</b>	<b>387,000</b>	<b>158,000</b>	<b>6,000</b>	<b>-</b>



**Table D-3**  
**Township of West Lincoln**  
**Schedule of Non-Growth Related Debenture Requirements**

Debenture Year	2020	Principal (Inflated)	Forecast									
			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2021		-		-	-	-	-	-	-	-	-	-
2022		-										
2023		-										
2024		-										
2025		-										
2026		-										
2027		-										
2028		-										
2029		-										
2030		-										
<b>Total Annual Debt Charges</b>	-	-	-	-	-	-	-	-	-	-	-	-

**Table D-4**  
**Township of West Lincoln**  
**Schedule of Growth Related Debenture Requirements**

Debenture Year	2020	Principal (Inflated)	Forecast									
			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2021		-		-	-	-	-	-	-	-	-	-
2022		-										
2023		-										
2024		-										
2025		-										
2026		-										
2027		-										
2028		-										
2029		-										
2030		-										
<b>Total Annual Debt Charges</b>	-	-	-	-	-	-	-	-	-	-	-	-

**Table D-5**  
**Township of West Lincoln**  
**Wastewater Capital Reserve Continuity (Inflated \$)**

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	867,287	618,853	704,789	807,120	905,080	627,672	882,253	1,255,808	1,517,255	1,937,478	2,539,881
Transfer from Operating	231,566	235,697	262,569	293,730	290,112	336,481	392,055	457,946	531,103	608,403	690,304
Transfer to Capital	480,000	149,760	160,238	195,770	567,520	81,900	18,500	196,500	110,880	6,000	-
Transfer to Operating	-	-	-	-	-	-	-	-	-	-	-
<b>Closing Balance</b>	<b>618,853</b>	<b>704,789</b>	<b>807,120</b>	<b>905,080</b>	<b>627,672</b>	<b>882,253</b>	<b>1,255,808</b>	<b>1,517,255</b>	<b>1,937,478</b>	<b>2,539,881</b>	<b>3,230,185</b>

**Table D-6**  
**Township of West Lincoln**  
**Wastewater Development Charges Reserve Fund Continuity (Inflated \$)**

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	646,544	379,825	427,822	484,316	521,428	145,766	(483,473)	(330,255)	(335,733)	(191,143)	8,345
Development Charge Proceeds	100,834	102,848	115,760	129,118	142,959	157,341	172,194	191,606	195,457	199,325	203,313
Transfer to Capital	375,000	63,240	68,762	102,230	521,480	777,100	12,500	190,500	47,120	-	-
Transfer to Operating	-	-	-	-	-	-	-	-	-	-	-
<b>Closing Balance</b>	<b>372,377</b>	<b>419,433</b>	<b>474,820</b>	<b>511,204</b>	<b>142,907</b>	<b>(473,994)</b>	<b>(323,780)</b>	<b>(329,150)</b>	<b>(187,395)</b>	<b>8,182</b>	<b>211,659</b>
Interest	7,448	8,389	9,496	10,224	2,858	(9,480)	(6,476)	(6,583)	(3,748)	164	4,233
Required from Development Charges	375,000	63,240	68,762	102,230	521,480	777,100	12,500	190,500	47,120	-	-



**Table D-7**  
**Township of West Lincoln**  
**Operating Budget Forecast (Inflated \$)**

Description	Budget 2020	Forecast									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Expenditures</b>											
Operating Costs											
WW-COLL-SALARY	36,900	80,100	81,700	83,300	127,500	130,100	132,700	135,400	138,100	140,900	143,700
WW-COLL-WAGES	51,400	52,400	53,400	54,500	55,600	56,700	57,800	59,000	60,200	61,400	62,600
WW-COLL-WAGES OT	9,900	10,100	10,300	10,500	10,700	10,900	11,100	11,300	11,500	11,700	11,900
WW-COLL-CPP	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400	4,500
WW-COLL-EI	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
WW-COLL-EHT	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
WW-COLL-WSIB	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800
WW-COLL-OMERS	9,000	9,200	9,400	9,600	9,800	10,000	10,200	10,400	10,600	10,800	11,000
WW-COLL-GROUP BENEFITS	10,900	11,100	11,300	11,500	11,700	11,900	12,100	12,300	12,500	12,800	13,100
WW-COLL-OFFICE SUPPLIES	800	800	800	800	800	800	800	800	800	800	800
WW-COLL-POSTAGE	4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800	4,900	5,000	5,200
WW-COLL-FUEL	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400
WW-COLL-R&M ENVIRON INFRSTRCT	9,600	9,900	10,200	10,500	10,800	11,100	11,400	11,700	12,100	12,500	12,900
WW-COLL-INSURANCE	17,200	17,700	18,200	18,700	19,300	19,900	20,500	21,100	21,700	22,400	23,100
WW-COLL-SOFTWARE FEES	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
WW-COLL-OUTSIDE SERVICES	59,400	61,200	63,000	64,900	66,800	68,800	70,900	73,000	75,200	77,500	79,800
WW-COLL-EQUIPMENT ALLOCATIN	8,700	9,000	9,300	9,600	9,900	10,200	10,500	10,800	11,100	11,400	11,700
WW-COLL-ALLOCTN OF PRGM SUP	251,000	258,500	266,300	274,300	282,500	291,000	299,700	308,700	318,000	327,500	337,300
WW-TREAT-OUTSIDE SERVICES	1,298,700	1,375,505	1,461,751	1,554,614	1,656,160	1,767,179	1,888,524	2,021,408	2,164,745	2,317,361	2,479,828
<b>Sub Total Operating</b>	<b>1,779,800</b>	<b>1,912,105</b>	<b>2,012,551</b>	<b>2,120,014</b>	<b>2,279,060</b>	<b>2,406,379</b>	<b>2,544,324</b>	<b>2,694,308</b>	<b>2,855,245</b>	<b>3,026,061</b>	<b>3,207,128</b>
Capital-Related											
Existing Debt (Principal) - Growth Related											
Existing Debt (Interest) - Growth Related											
New Growth Related Debt (Principal)	-	-	-	-	-	-	-	-	-	-	-
New Growth Related Debt (Interest)	-	-	-	-	-	-	-	-	-	-	-
Existing Debt (Principal) - Non-Growth Related											
Existing Debt (Interest) - Non-Growth Related											
New Non-Growth Related Debt (Principal)	-	-	-	-	-	-	-	-	-	-	-
New Non-Growth Related Debt (Interest)	-	-	-	-	-	-	-	-	-	-	-
Transfer to Capital											
Transfer to Capital Reserve	231,566	235,697	262,569	293,730	290,112	336,481	392,055	457,946	531,103	608,403	690,304
<b>Sub Total Capital Related</b>	<b>231,566</b>	<b>235,697</b>	<b>262,569</b>	<b>293,730</b>	<b>290,112</b>	<b>336,481</b>	<b>392,055</b>	<b>457,946</b>	<b>531,103</b>	<b>608,403</b>	<b>690,304</b>
<b>Total Expenditures</b>	<b>2,011,366</b>	<b>2,147,801</b>	<b>2,275,120</b>	<b>2,413,744</b>	<b>2,569,171</b>	<b>2,742,860</b>	<b>2,936,379</b>	<b>3,152,254</b>	<b>3,386,348</b>	<b>3,634,464</b>	<b>3,897,432</b>
<b>Revenues</b>											
Base Charge	965,568	1,042,559	1,124,855	1,215,243	1,317,128	1,431,696	1,560,238	1,704,656	1,862,870	2,032,645	2,214,739
Other Revenue	-	-	-	-	-	-	-	-	-	-	-
Service Fees	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Ontario Clean Water Agency	14,300	14,300	14,300	14,300	14,300	14,300	14,300	14,300	14,300	14,300	14,300
Contributions from Development Charges Reserve Fund	-	-	-	-	-	-	-	-	-	-	-
Contributions from Reserves / Reserve Funds	-	-	-	-	-	-	-	-	-	-	-
<b>Total Operating Revenue</b>	<b>981,868</b>	<b>1,058,859</b>	<b>1,141,155</b>	<b>1,231,543</b>	<b>1,333,428</b>	<b>1,447,996</b>	<b>1,576,538</b>	<b>1,720,956</b>	<b>1,879,170</b>	<b>2,048,945</b>	<b>2,231,039</b>
<b>Wastewater Billing Recovery - Operating</b>	<b>1,029,498</b>	<b>1,088,942</b>	<b>1,133,965</b>	<b>1,182,201</b>	<b>1,235,744</b>	<b>1,294,864</b>	<b>1,359,841</b>	<b>1,431,298</b>	<b>1,507,178</b>	<b>1,585,520</b>	<b>1,666,393</b>
<b>Wastewater Billing Recovery - Total</b>	<b>1,029,498</b>	<b>1,088,942</b>	<b>1,133,965</b>	<b>1,182,201</b>	<b>1,235,744</b>	<b>1,294,864</b>	<b>1,359,841</b>	<b>1,431,298</b>	<b>1,507,178</b>	<b>1,585,520</b>	<b>1,666,393</b>

**Table D-8**  
**Township of West Lincoln**  
**Wastewater Rate Forecast**

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total Wastewater Billing Recovery	1,029,498	1,088,942	1,133,965	1,182,201	1,235,744	1,294,864	1,359,841	1,431,298	1,507,178	1,585,520	1,666,393
<b>Total Wastewater Billing Recovery</b>											
Total Volume (m <sup>3</sup> ) - January to June	290,000	296,198	302,397	309,078	316,742	325,387	335,015	345,706	356,895	368,085	379,274
Total Volume (m <sup>3</sup> ) - July to December	290,000	296,198	302,397	309,078	316,742	325,387	335,015	345,706	356,895	368,085	379,274
<b>Check Total Volume</b>	<b>579,999</b>	<b>592,396</b>	<b>604,793</b>	<b>618,156</b>	<b>633,483</b>	<b>650,775</b>	<b>670,030</b>	<b>691,411</b>	<b>713,790</b>	<b>736,169</b>	<b>758,548</b>
<b>Wastewater Rates (\$/m<sup>3</sup>)</b>											
Constant Rate (m <sup>3</sup> ) - January to June	1.73	1.82	1.86	1.89	1.93	1.97	2.01	2.05	2.09	2.13	2.18
Constant Rate (m <sup>3</sup> ) - July to December	1.82	1.86	1.89	1.93	1.97	2.01	2.05	2.09	2.13	2.18	2.22
Total Water Billing Recovery											
January to June	501,699	539,080	561,369	585,248	611,754	641,022	673,188	708,563	746,128	784,911	824,947
July to December	527,799	549,862	572,596	596,953	623,989	653,842	686,652	722,735	761,050	800,609	841,446
<b>Total Wastewater Billing Recovery</b>	<b>1,029,498</b>	<b>1,088,942</b>	<b>1,133,965</b>	<b>1,182,201</b>	<b>1,235,744</b>	<b>1,294,864</b>	<b>1,359,841</b>	<b>1,431,298</b>	<b>1,507,178</b>	<b>1,585,520</b>	<b>1,666,393</b>
<b>Annual Percentage Change</b>		<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>



 **Watson  
& Associates**  
ECONOMISTS LTD.

# **Water Ontario Regulation 453/07 Financial Plan**

Township of West Lincoln

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Financial Plan #077-301

November 10, 2020

Watson & Associates Economists Ltd.  
905-272-3600  
[info@watsonecon.ca](mailto:info@watsonecon.ca)



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## List of Acronyms and Abbreviations

Acronym	Full Description of Acronym
D.C.	Development Charges
MECP	Ministry of the Environment, Conservation and Parks
MMAH	Ministry of Municipal Affairs and Housing
OCIF	Ontario Community Infrastructure Fund
O. Reg.	Ontario Regulation
PSAB	Public Sector Accounting Board
S.D.W.A.	Safe Drinking Water Act
T.C.A.	Tangible Capital Assets
W.O.A.	Water Opportunities Act



# Report



# Chapter 1

## Introduction



# 1. Introduction

## 1.1 Study Purpose

---

Watson & Associates Economists Ltd. (Watson) was retained by the Township of West Lincoln (the Township) to prepare a water financial plan as part of the five submission requirements for the purposes of obtaining a municipal drinking water license as per the *Safe Drinking Water Act, 2002*. In general, a financial plan requires an in-depth analysis of capital and operating needs, a review of current and future demand versus supply, and consideration of available funding sources. The detailed financial planning and forecasting regarding the Township's water systems has already been completed based on the Township's 2020 Water and Wastewater Rate Study (2020 Rate Study). The objective of the report provided herein is to convert the details of the 2020 Rate Study into the prescribed reporting requirements for a financial plan as defined by Ontario Regulation 453/07 (O.Reg. 453/07) and project the financial position over a ten-year forecast period.

## 1.2 Background

---

The Safe Drinking Water Act (S.D.W.A.), "the Act", was passed in December, 2002 in order to address some of the recommendations made by the Walkerton Inquiry Part II report. One of the main requirements of the Act is the mandatory licensing of municipal water providers. Section 31 (1) specifically states,

"No person shall,

- a) establish a new municipal drinking water system or replace or carry out an alteration to a municipal drinking water system except under the authority of and in accordance with an approval under this Part or a drinking water works permit; or
- b) use or operate a municipal drinking water system that was established before or after this section comes into force except under the authority of and in accordance with an approval under this Part or municipal drinking water licence."

In order to become licensed, a Township must satisfy five key requirements as per section 44 (1):



1. Obtain a drinking water works permit.
2. Acceptance of the operational plan for the system based on the Drinking Water Quality Management Standard.
3. Accreditation of the Operating Authority.
4. Prepare and provide a financial plan.
5. Obtain permit to take water.

For licence renewals, the application must be accompanied by proof that the financial plan meets the prescribed requirements as per the Act s. 32 (5) 2. ii.

The preparation of a financial plan is a key requirement for licensing and as such, must be undertaken by all water providers.

### **1.2.1 Financial Plan Defined**

Subsection 30 of the Act provides the following definition of financial plans:

"financial plans" means financial plans that satisfy the requirements prescribed by the Minister. 2017, c. 2, Sched. 11, s. 6 (3)

As of time of writing, the *Sustainable Water and Sewage Systems Act, 2002* has been repealed (see Section 2.2 of this report) however, the standards that it directs underpin the specific requirements of s.30 as they are outlined in O. Reg. 453/07 and which will be examined in detail below.

### **1.2.2 Financial Plan Requirements – Existing System**

The O. Reg. 453/07 provides details with regards to the financial plans for existing water systems. The requirements for existing systems are summarized as follows:

- Financial plans must be approved by resolution of Council (or governing body);
- Financial plans must include a statement that the financial impacts have been considered and apply for a minimum six-year period (commencing in the year of licence expiry);
- Financial plans must include detail regarding proposed or projected financial operations itemized by total revenues, total expenses, annual surplus/deficit, and



accumulated surplus/deficit (i.e. the components of a "Statement of Operations" as per the PSAB) for each year in which the financial plans apply;

- Financial plans must present financial position itemized by total financial assets, total liabilities, net debt, non-financial assets, and tangible capital assets (i.e. the components of a "Statement of Financial Position" as per PSAB) for each year in which the financial plans apply;
- Gross cash receipts/payments itemized by operating transactions, capital transactions, investing transactions and financial transactions (i.e. the components of a "Statement of Cash Flow" as per PSAB) for each year in which the financial plans apply;
- Financial plans applicable to two or more solely owned drinking water systems can be prepared as if they are for one drinking water system;
- Financial plans are to be made available to the public upon request and at no charge;
- If a website is maintained, financial plans are to be made available to the public through publication on the Internet at no charge;
- Notice of the availability of the financial plans is to be given to the public; and
- Financial plan is to be submitted to the Ministry of Municipal Affairs and Housing.

### **1.2.3 Financial Plan Requirements – General**

Given that the requirements for a financial plan is legislated under the Act, a financial plan is mandatory for water systems. The financial plans shall be for a forecast period of at least six years but longer planning horizons are encouraged. The ten-year forecast goes above and beyond the minimum requirement. The financial plan is to be completed and approved by resolution of Council or the governing body in accordance with subsection 3 (1) 1 of O. Reg. 453/07. Confirmation of approval of the financial plan must be submitted at the time of municipal drinking water license renewal (i.e. six months prior to license expiry).

A copy of the financial plan will be submitted to the Ministry of Municipal Affairs and Housing (MMAH) and not the MECP; however, the MECP may request it in the course of review of the licence renewal. Financial plans may be amended and additional information beyond what is prescribed can be included if deemed necessary. The financial plan must contain on the front page, the appropriate financial plan number as set out in Schedule A of the Municipal Drinking Water Licence.





#### **1.2.4 Public Sector Accounting Board (P.S.A.B.) Requirements**

The components of the financial plans indicated by the regulation are consistent with the requirements for financial statement presentation as set out in section PS1200 of the Canadian Institute of Chartered Accountants Public Sector Accounting Handbook:

“Financial statements should include a Statement of Financial Position, a Statement of Operations, a Statement of Change in Net Debt, and a Statement of Cash Flow.”

The format required is to conform to the requirements of PS1200 and PS3150. The financial statements are to be reported on a full accrual accounting basis. The accrual accounting method recognizes revenues and expenses in the same period as the activities that give rise to them regardless of when they are actually paid for. Since an exchange of cash is not necessary to report a financial transaction, the accrual method is meant to provide a more accurate picture of financial position.

The accounting treatment of tangible capital assets is prescribed under section PS3150. Tangible capital assets are to be capitalized to ensure an inventory of the assets owned are recorded and to account for their ability to provide future benefits.

The Statement of Cash Flow and the Statement of Change in Net Financial Assets/Debt are required statements. The Statement of Change in Net Financial Assets/Debt reports on whether enough revenue was generated in a period to cover the expenses in the period and whether sufficient resources have been generated to support current and future activities. The Statement of Cash Flow reports on how activities were financed for a given period providing a measure of the changes in cash for that period.

#### **1.2.5 The Township's Financial Plan**

The Township is currently in the process of renewing the drinking water license and the previous version of the financial plan no longer meets the requirements as it must apply to a period of a least six years beginning in the year that the licenses would otherwise expire. As the Township's water license expires in 2021, this financial plan provides for a 2021 start year and forecast period to 2030.



# Chapter 2

## Sustainable Financial Planning



## 2. Sustainable Financial Planning

### 2.1 Introduction

---

In general, sustainability refers to the ability to maintain a certain position over time. While the S.D.W.A. requires a declaration of the financial plan's sustainability, it does not give a clear definition of what would be considered sustainable. Instead, the Ministry of the Environment released a guideline ("Towards Financially Sustainable Drinking-Water") that provides possible approaches to achieving sustainability. The Province's Principles of Financially Sustainable Water Services are provided below:

Principle #1: Ongoing public engagement and transparency can build support for, and confidence in, financial plans and the system(s) to which they relate.

Principle #2: An integrated approach to planning among water, wastewater, and storm water systems is desirable given the inherent relationship among these services.

Principle #3: Revenues collected for the provision of water services should ultimately be used to meet the needs of those services.

Principle #4: Life-cycle planning with mid-course corrections is preferable to planning over the short-term, or not planning at all.

Principle #5: An asset management plan is a key input to the development of a financial plan.

Principle #6: A sustainable level of revenue allows for reliable service that meets or exceeds environmental protection standards, while providing sufficient resources for future rehabilitation and replacement needs.

Principle #7: Ensuring users pay for the services they are provided leads to equitable outcomes and can improve conservation. In general, metering and the use of rates can help ensure users pay for services received.

Principle #8: Financial plans are "living" documents that require continuous improvement. Comparing the accuracy of financial projections with actual results can lead to improved planning in the future.



Principle #9: Financial plans benefit from the close collaboration of various groups, including engineers, accountants, auditors, utility staff, and municipal council.

## 2.2 Sustainable Water and Sewage Systems Act

---

The *Sustainable Water and Sewage Systems Act* (S.W.S.S.A.) was passed on December 13, 2002. The intent of the Act was to introduce the requirement for municipalities to undertake an assessment of the “full cost” of providing their water and the wastewater services. In total, there were 40 areas within the Act to which the Minister could have made Regulations. It is noted that, the regulations, which accompany the Act, were not issued and the Act was repealed on December 31, 2012.

## 2.3 Water Opportunities Act, 2010

---

Since the passage of the *Safe Drinking Water Act*, changes and refinements to the legislation have been introduced, including the *Water Opportunities Act* (W.O.A). W.O.A. was introduced into legislation on May 18, 2010 and received Royal Assent on November 29, 2010, as the W.O.A.

The purposes of the W.O.A. are to foster innovative water, wastewater and storm water technologies, services, and practices; create opportunities for economic development and clean-technology jobs; and conserve and sustain water resources. To achieve this, the W.O.A. provides for the creation of performance targets (financial, operational and maintenance related), which will vary by service type and location and the required submission of conservation and sustainability plans for water, wastewater, and stormwater.

The sustainability plan in the W.O.A. expands on interim legislation for financial plans included in O. Reg. 453/07, to include the following:

- an asset management plan for the physical infrastructure;
- financial plan;
- water conservation plan (for water service only);
- a risk assessment;
- a strategy for maintaining and improving the services; and



- additional information considered advisable.

Where a Board has jurisdiction over a service, the plan (and any plan amendments) must be approved by the Township in which the municipal service is provided before submission to the Minister. The Minister may also direct preparation of joint or partially joint plans.

Regulations (still forthcoming) will prescribe details in regard to any time periods or time limits, contents of the plans, identifying which portions of the plan will require certification, the public consultation process (if required), limitations updates and refinements.

## 2.4 Infrastructure for Jobs and Prosperity Act (I.J.P.A.), 2015

---

On June 4, 2015, the Province passed the *Infrastructure for Jobs and Prosperity Act* (I.J.P.A.) which, over time, will require municipalities to undertake and implement asset management plans for all infrastructure they own. On December 27, 2017, the Province of Ontario released Ontario Regulation 588/17 under I.J.P.A. which has 3 phases that municipalities must meet.

Every Township in Ontario will have to prepare a strategic asset management policy by July 1, 2019. Municipalities will be required to review their strategic asset management policies at least every five years and make updates, as necessary. The subsequent phases are as follows:

- Phase 1 – Asset Management Plan (by July 1, 2021):
  - For core assets – Municipalities must have the following:
    - Inventory of assets;
    - Current levels of service measured by standard metrics; and
    - Costs to maintain levels of service.
- Phase 2 – Asset Management Plan (by July 1, 2023):
  - Same steps as Phase 1 but for all assets.
- Phase 3 – Asset Management Plan (by July 1, 2024):
  - Builds on Phase 1 and 2 by adding:
    - Proposed levels of service; and
    - Lifecycle management and Financial strategy.



In relation to water (which is considered a core asset), municipalities will need to have an asset management plan that addresses the related infrastructure by July 1, 2021 (Phase 1). O.Reg. 588/17 specifies that the Township's asset management plan must include the following for each asset category:

- the current levels of service being provided;
  - determined in accordance with the following qualitative descriptions and technical metrics and based on data from at most the two calendar years prior to the year in which all information required under this section is included in the asset management plan.
- the current performance of each asset category;
- a summary of the assets in the category;
- the replacement cost of the assets in the category;
- the average age of the assets in the category, determined by assessing the average age of the components of the assets;
- the information available on the condition of the assets in the category;
- a description of the Township's approach to assessing the condition of the assets in the category, based on recognized and generally accepted good engineering practices where appropriate; and
- the lifecycle activities that would need to be undertaken to maintain the current levels of service.

Upon completion of the asset management plan for water, the Township will need to consider the impacts during the annual budget and forecast process.

## 2.5 Water Forecast

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The Township has already completed their financial planning through it's 2020 water budget and a forecasting exercise through the 2020 Rate Study. The budget and rate study are designed to address "full cost" principles and reflect the guiding principles toward sustainable financial planning.

As a result of employing this process, the 2020 Rate Study provides the basis for a financial plan for the Township's water system by assessing:

- A detailed assessment of current and future capital needs including an analysis of potential funding sources;



- An analysis of operating costs in order to determine how they will be impacted by evolving infrastructure needs and system growth;
- An analysis of required water rates that ensure revenues are equitable and sufficient to meet system needs; and
- A public process that involves consultation with the main stakeholders including the Township's staff, Council, the general public (specifically the users of the system) and others with the aim of gaining input and collaboration on the sustainability of the water financial plan.



# Chapter 3

## Approach





## 3. Approach

### 3.1 Overview

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The 2020 Rate Study has been used as a starting point to prepare the water financial plan. The Water forecast is prepared on a modified cash basis; therefore, a conversion is required in order to present a full accrual financial plan for the purposes of this report. The conversion process used will help to establish the structure of the financial plan along with the opening balances that will underpin the forecast. This chapter outlines the conversion process utilized and summarizes the adjustments made to prepare the financial plan.

### 3.2 Conversion Process

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The conversion from the existing modified cash basis identified in the 2020 Rate Study to the full accrual reporting format required under O.Reg. 453/07 can be summarized in the following steps:

1. Calculate Tangible Capital Asset Balances
2. Convert Statement of Operations
3. Convert Statement of Financial Position
4. Convert Statement of Cash Flow and Net Assets/Debt
5. Verification and Note Preparation

#### **3.2.1 Calculate Tangible Capital Asset Balances**

In calculating tangible capital asset balances, existing and future purchased, developed, and/or contributed assets will need to be considered. For existing water assets, an inventory has already been compiled and summarized by the Township for the purposes of their annual PSAB 3150 compliance process. As required, for PSAB 3150 reporting purposes, the asset inventory listing included historical cost (which is the original cost to purchase, develop, or construct each asset) along with an estimated



useful life for each asset and any anticipated salvage value is recorded. The following calculations are made to determine net book value:

- Accumulated amortization up to the year prior to the first forecast year.
- Amortization expense on existing assets for each year of the forecast period.
- Acquisition of new assets for each year of the forecast period.
- Disposals and related gains or losses for each year of forecast period.

Future water capital needs have also been determined and summarized within the 2020 Rate Study. These estimates, however, only represent future assets that the Township anticipates purchasing or constructing without consideration for future assets that may be contributed by developers and other parties (at no or partial cost to the Township). These contributed assets will form part of the infrastructure going forward in terms of the sustainability of the system and despite their non-monetary nature; future financial plans may need to be adjusted in order to properly account for these transactions. Once the sequence and total asset acquisition has been determined for the forecast period, annual amortization of these assets for each year is calculated in a similar manner as that used for existing assets.

Once the historical cost, accumulated amortization, and amortization expenses are calculated as described above, the total net book value of the tangible capital assets can be determined and recorded on the Statement of Financial Position.

### **3.2.2 Convert Statement of Operations**

A wide range of adjustments will be considered, dependent on the size and complexity of the system, in order to convert from the cash to full accrual basis. For example, debt repayment costs relating to the principal payment portion only needs to be removed under the accrual basis, as they no longer qualify as an expense for reporting purposes. Principal payments are reported as a decrease in debt liability on the Statement of Financial Position. Transfers to and from reserves are removed as these transactions are represented by changes in cash and accumulated surplus. Finally, expenses relating to tangible capital assets, such as amortization, write-offs, and (gain)/loss on disposal of assets are reported on the Statement of Operations in order to capture the



allocation of the cost of these assets to operating activities over their useful lives and therefore are added in under the accrual basis..



Table 3-1  
Conversion Adjustments  
Statement of Operations (Water)

Modified Cash Basis	Budget 2021	Adjustments		Full Accrual Budget 2021	Accrual Basis
		DR	CR		
<b>Revenues</b>					<b>Revenues</b>
Base Charge Revenue	457,838			457,838	Base Charge Revenue
Rate Based Revenue	1,238,924			1,238,924	Rate Based Revenue
Transfers from Reserves	-	-			
			-	-	Earned Development Charges and Gas Tax Revenue
			-	-	Developer Contributions
Contributions from Ratepayers	-	-		-	Interest Earned on Long-term Accounts Receivable
Other Revenue	47,600		-	47,600	Other Revenue
<b>Total Revenues</b>	<b>1,744,362</b>			<b>1,744,362</b>	<b>Total Revenues</b>
<b>Expenditures</b>					<b>Expenses</b>
Operating	1,515,029	51,000		1,566,028	Operating Expenses
Capital					
Transfers to Reserves	229,333		229,333		
Transfers to Capital	-		-		
Debt Repayment (Principal & Interest)	-		-	-	Interest on Debt
		158,457		158,457	Amortization
		-		-	Loss on Disposal of Tangible Capital Assets
<b>Total Expenditures</b>	<b>1,744,362</b>			<b>1,724,485</b>	<b>Total Expenses</b>
<b>Net Expenditures</b>	<b>-</b>			<b>19,877</b>	<b>Annual Surplus/(Deficit)</b>
Increase (decrease) in amounts to be recovered	-			9,030,042	Accumulated Surplus/(Deficit), beginning of year
<b>Change in Fund Balances</b>	<b>-</b>	<b>19,877</b>	<b>-</b>	<b>9,049,919</b>	<b>Accumulated Surplus/(Deficit), end of year</b>
<b>TOTAL ADJUSTMENTS</b>		<b>229,333</b>	<b>229,333</b>		

**Note:** The combined adjustments above should be balanced and net to \$0 (i.e. Total DR = Total CR)



### **3.2.3 Convert Statement of Financial Position**

Once the Statement of Operations has been converted and the net book value of tangible capital assets has been recorded, balances for the remaining items on the Statement of Financial Position are determined and recorded (see Figure 3-2). The opening/actual balances for the remaining accounts such as accounts receivable, inventory, accounts payable, outstanding debt (principal only), are recorded and classified according to the structure of the Statement of Financial Position as outlined in PS1200.

It is acknowledged that some of the balances required on the Statement of Financial Position will be consolidated across the Township and as such, will be difficult to isolate the information that is relevant to water. An example of this is accounts receivable, which may be administered centrally by the Finance Department. Ontario Regulation 453/07 allows for the exclusion of these numbers if they are not known at the time of preparing the financial plan. Please refer to the Financial Plan Notes in Chapter 4 for more details.

### **3.2.4 Convert Statement of Cash Flow and Net Financial Assets/Debt**

The Statement of Cash Flow summarizes how the Township financed its activities or in other words, how the costs of providing services were recovered. The statement is derived using comparative Statement of Financial Position, the current Statement of Operations and other available transaction data.

The Statement of Change in Net Financial Assets/Debt is a statement which reconciles the difference between the surplus or deficit from current operations and the change in net financial assets/debt for the year. This is significant, as net debt provides an indication of future revenue requirements. In order to complete the Statement of Net Financial Assets/Debt, information regarding any gains/losses on disposals of assets, asset write-downs, acquisition/use of supplies inventory, and the acquisition use of prepaid expenses is necessary, (if applicable). Although the Statement of Change in Net Financial Assets/Debt is not required under O. Reg. 453/07, it has been included in this report as a further indicator of financial viability.



Table 3-2  
Conversion Adjustments  
Statements of Financial Position (Water)

Modified Cash Basis	Budget 2021	Adjustments		Full Accrual Budget 2021	Accrual Basis
		DR	CR		
<b>ASSETS</b>					<b>ASSETS</b>
<b>Financial Assets</b>					<b>Financial Assets</b>
Cash	1,170,890			1,170,890	Cash
Accounts Receivable	361,842			361,842	Accounts Receivable
<b>Total Financial Assets</b>	<b>1,532,732</b>			<b>1,532,732</b>	<b>Total Financial Assets</b>
<b>Non-Financial Assets</b>					
Inventory of Supplies	-		-		
Prepaid Expenses	-		-		
<b>Total Non-Financial Assets</b>	<b>-</b>				
<b>LIABILITIES</b>					<b>Liabilities</b>
Accounts Payable & Accrued Liabilities	99,436			99,436	Accounts Payable & Accrued Liabilities
Gross Long-term Liabilities	-			-	Debt (Principal only)
Deferred Revenue	943,315			943,315	Deferred Revenue
Other	-			-	Other
<b>Total Liabilities</b>	<b>1,042,751</b>			<b>1,042,751</b>	<b>Total Liabilities</b>
<b>Net Assets/(Debt)</b>	<b>489,981</b>			<b>489,981</b>	<b>Net Financial Assets/(Debt)</b>
		8,610,938	51,000	8,559,938	<b>Non-Financial Assets</b>
		-		-	Tangible Capital Assets
		-		-	Inventory of Supplies
				-	Prepaid Expenses
				<b>8,559,938</b>	<b>Total Non-Financial Assets</b>
<b>Municipal Position</b>					
Water Reserves	489,981	489,981	-		
Gas Tax Reserve Fund	-	-	-		
Development Charge Reserve Fund	943,315	943,315	-		
Amounts to be Recovered	(943,315)	-	943,315		
<b>Total Municipal Position</b>	<b>489,981</b>		9,049,920	<b>9,049,919</b>	<b>Accumulated Surplus/(Deficit), end of year</b>
<b>TOTAL ADJUSTMENTS</b>		<b>10,044,234</b>	<b>10,044,234</b>		

**Note:** The combined adjustments above should be balanced and net to \$0 (i.e. Total DR = Total CR)



### **3.2.5 Verification and Note Preparation**

The final step in the conversion process is to ensure that all the statements created by the previous steps are in balance. The Statement of Financial Position summarizes the resources and obligations of the Township at a set point in time. The Statement of Operations summarizes how these resources and obligations changed over the reporting period. To this end, the accumulated surplus/deficit reported on the Statement of Financial Position should equal the accumulated surplus/deficit reported on the Statement of Operations.

The Statement of Change in Net Financial Assets/Debt and the Statement of Financial Position are also linked in terms of reporting on net financial assets/debt. On the Statement of Financial Position, net financial assets/debt is equal to the difference between financial assets and liabilities and should equal net financial assets/debt as calculated on the Statement of Net Financial Assets/Debt.

While not part of the financial plan, the accompanying notes are important to summarize the assumptions and estimates made in preparing the financial plan. Some of the significant assumptions that need to be addressed within the financial plan are as follows:

- a) Opening Cash Balances – Opening cash balances are necessary to complete the Statement of Cash Flows and balance the Statement of Financial Position. Preferably, opening cash balances should be derived from actual information contained within the Township's ledgers. It may not, however, be possible to extract this information from the ledgers for water alone; therefore, a reasonable proxy will be needed. One approach is to assume that opening cash balances equal ending reserve and reserve fund balances from the previous year adjusted for accrual-based transactions reflected by accounts receivable/payable balances. The following equation outlines this approach:

Ending Reserve/Reserve Fund Balance  
Plus: Ending Accounts Payable Balance  
Less: Ending Accounts Receivable Balance  
Equals: Approximate Ending Cash Balance

- b) Amortization Expense – The method and timing of amortization should be based on the Township's amortization policy.



- c) Accumulated Amortization – Will be based on the culmination of accumulated amortization expenses throughout the life of each asset however derived, along with information on construction/acquisition date and useful life obtained from the capital asset listing provided.
- d) Contributed Assets – As noted earlier, contributed assets could represent a significant part of the Township's infrastructure acquisitions. As such, a reasonable estimate of value and timing of acquisition/donation may be required in order to adequately capture these assets. In the case where contributed assets are deemed to be insignificant or unknown, an assumption of "no contributed assets within the forecast period" will be made.
- e) Accumulated Surplus – The magnitude of the surplus in this area may precipitate the need for additional explanation especially in the first year of reporting. This Accumulated Surplus captures the historical infrastructure investment which has not been reported in the past but has accumulated to significant levels. It also includes all water reserve and reserve fund balances.
- f) Other Revenues – Will represent the recognition of minor miscellaneous revenues.





# Chapter 4

## Financial Plan



## 4. Financial Plan

### 4.1 Introduction

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The following tables provide the complete financial plan for the Township's water system. A brief description and analysis of each table is provided below. It is important to note that the financial plan that follows is a forward look at the financial position of the Township's water systems. It is not an audited document and it contains various estimates as detailed in the "Notes to the Financial Plan" section below.

### 4.2 Water Financial Plan

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#### ***4.2.1 Statement of Financial Position (Table 4-1)***

The Statement of Financial Position provides information that describes the assets, liabilities, and accumulated surplus of the Township's water systems. The first important indicator is net financial assets/(debt), which is defined as the difference between financial assets and liabilities. This indicator provides an indication of the system's "future revenue requirement." A net financial asset position is where financial assets are greater than liabilities and implies that the system has the resources to finance future operations. Conversely, a net debt position implies that the future revenues generated by the system will be needed to finance past transactions, as well as future operations. Table 4-1 indicates that for 2021, the Township's water system will be in a net financial asset position of approximately \$489,891. However, this net financial asset position becomes a net debt position in 2023 and continues through the forecast to 2029. By 2030, the water system returns to a net financial asset position of \$322,144.

Another important indicator on the Statement of Financial Position is the tangible capital asset balance. As noted earlier, providing this information is a requirement for municipalities as part of PS3150 compliance and is significant from a financial planning perspective for the following reasons:

- Tangible capital assets such as water mains and treatment plants are imperative to water service delivery.



- These assets represent significant economic resources in terms of their historical and replacement costs. Therefore, ongoing capital asset management is essential to managing significant replacements and repairs.
- The annual maintenance required by these assets has an enduring impact on water operational budgets.

In general terms, an increase in the tangible capital asset balance indicates that assets may have been acquired either through purchase by the Township or donation/contribution by a third party. A decrease in the tangible capital asset balance can indicate a disposal, write down, or use of assets. A use of assets is usually represented by an increase in accumulated amortization due to annual amortization expenses arising as a result of allocating the cost of the asset to operations over the asset's useful life. Table 4-1 shows tangible capital assets are expected to increase by approximately \$6.45 million over the forecast period. This indicates that the Township plans to continue to add to the existing tangible capital assets over the forecast period.

#### **4.2.2 Statement of Operations (Table 4-2)**

The Statement of Operations summarizes the revenues and expenses generated by the water system for a given period. The annual surplus/deficit measures whether the revenues generated were sufficient to cover the expenses incurred and in turn, whether net financial assets have been maintained or depleted. Table 4-2 illustrates the ratio of expenses to revenues at 99% in 2021, decreasing over the forecast period to 82% by 2030. As a result, annual surplus/deficit increases from a surplus of approximately \$19,900 to a surplus of approximately \$585,600 over the forecast period. This is due to a general increasing trend in the revenues anticipated, as provided for in the 2020 rate study. It is important to note that an annual surplus is beneficial to ensure funding is available for costs such as tangible capital asset acquisitions, reserve/reserve fund transfers and debt principal payments.

Another important indicator on this statement is accumulated surplus/deficit. An accumulated surplus indicates that the available net resources are sufficient to provide future water services. An accumulated deficit indicates that resources are insufficient to provide future services and that borrowing, or rate increases are required to finance annual deficits. From Table 4-2, the financial plan proposes to add approximately \$6.3 million to a 2021 accumulated surplus of approximately \$9.03 million over the forecast



period. The existing accumulated surplus, as indicated in Table 4-2, is predominately made up of reserve balances as well as historical investments in tangible capital assets.

#### **4.2.3 Statement of Change in Net Financial Assets/Debt (Table 4-3)**

The Statement of Change in Net Financial Assets/Debt indicates whether revenue generated was sufficient to cover operating and non-financial asset costs (i.e. inventory supplies, prepaid expenses, tangible capital assets, etc.) and in so doing, explains the difference between the annual surplus/deficit and the change in net financial assets/debt for the period. Table 4-3 indicates that in 2020, forecasted annual surplus exceeds forecasted tangible capital asset acquisitions (net of amortization for the year), resulting in an increase in the net financial asset balance. However, beginning in 2022 and throughout the balance of the forecast period to 2030, forecasted tangible capital asset acquisitions (net of amortization for the year) exceeds the forecasted annual surplus, resulting in decreases to the net financial asset balance. This is a result of more significant capital asset acquisitions forecasted allowing for a long-term plan of funding capital through accumulated surplus (i.e. reserves and reserve funds). The ratio of cumulative annual surplus before amortization to cumulative tangible capital asset acquisitions is 2.58 in 2021 and decreases to 0.99 over the forecast period (note: a desirable ratio is 1:1 or better).

#### **4.2.4 Statement of Cash Flow (Table 4-4)**

The Statement of Cash Flow summarizes how water systems are expected to generate and use cash resources during the forecast period. The transactions that provide/use cash are classified as operating, capital, investing, and financing activities as shown in Table 4-4. This statement focuses on the cash aspect of these transactions and thus is the link between cash- and accrual-based reporting. Table 4-4 indicates that cash from operations will be used to fund capital transactions (i.e. tangible capital asset acquisitions and non-tangible capital asset maintenance) and build internal reserve funds over the forecast period. The financial plan projects the cash position of Town's water system to increase from a balance of approximately \$0.46 million at the beginning of 2021, to just over \$0.72 million by the end of 2030. For further discussions, on projected cash balances please refer to the Notes to the Financial Plan.



Table 4-1  
Statement of Financial Position: Water Services  
UNAUDITED: For Financial Planning Purposes Only  
2021-2030

	Notes	Forecast									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Financial Assets</b>											
Cash	1	1,170,890	915,783	-	-	-	-	-	-	-	723,710
Accounts Receivable	1	361,842	368,600	393,371	420,270	450,062	498,867	519,434	559,741	603,480	650,159
Long-term Accounts Receivable	2	-	-	-	-	-	-	-	-	-	-
Investments		-	-	-	-	-	-	-	-	-	-
Inventory for resale		-	-	-	-	-	-	-	-	-	-
Other - Long-term Receivables	3	-	-	545,542	1,082,402	1,718,157	1,364,687	1,290,311	847,759	386,985	-
<b>Total Financial Assets</b>		<b>1,532,732</b>	<b>1,284,383</b>	<b>938,913</b>	<b>1,502,672</b>	<b>2,168,219</b>	<b>1,863,554</b>	<b>1,809,745</b>	<b>1,407,500</b>	<b>990,465</b>	<b>1,373,869</b>
<b>Liabilities</b>											
Bank Indebtedness		-	-	394,221	652,075	1,846,225	1,351,871	1,663,341	783,728	561,155	-
Accounts Payable & Accrued Liabilities	1	99,436	102,294	106,959	111,917	120,112	130,969	132,131	138,850	146,034	153,610
Debt (Principal only)	2	-	-	726,974	1,070,100	1,029,464	987,507	944,187	899,459	853,277	805,594
Deferred Revenue	3	943,315	1,075,699	-	-	-	-	-	-	-	92,521
Other		-	-	-	-	-	-	-	-	-	-
<b>Total Liabilities</b>		<b>1,042,751</b>	<b>1,177,993</b>	<b>1,228,154</b>	<b>1,834,092</b>	<b>2,995,801</b>	<b>2,470,347</b>	<b>2,739,659</b>	<b>1,822,037</b>	<b>1,560,466</b>	<b>1,051,725</b>
<b>Net Financial Assets/(Debt)</b>		<b>489,981</b>	<b>106,390</b>	<b>(289,241)</b>	<b>(331,420)</b>	<b>(827,582)</b>	<b>(606,793)</b>	<b>(929,914)</b>	<b>(414,537)</b>	<b>(570,001)</b>	<b>322,144</b>
<b>Non-Financial Assets</b>											
Tangible Capital Assets	4	8,559,938	9,221,227	11,693,154	12,654,009	14,076,109	13,953,755	14,873,251	14,677,054	15,315,070	15,008,517
Inventory of Supplies		-	-	-	-	-	-	-	-	-	-
Prepaid Expenses		-	-	-	-	-	-	-	-	-	-
<b>Total Non-Financial Assets</b>		<b>8,559,938</b>	<b>9,221,227</b>	<b>11,693,154</b>	<b>12,654,009</b>	<b>14,076,109</b>	<b>13,953,755</b>	<b>14,873,251</b>	<b>14,677,054</b>	<b>15,315,070</b>	<b>15,008,517</b>
<b>Accumulated Surplus/(Deficit)</b>	5	<b>9,049,919</b>	<b>9,327,617</b>	<b>11,403,913</b>	<b>12,322,589</b>	<b>13,248,527</b>	<b>13,346,962</b>	<b>13,943,337</b>	<b>14,262,517</b>	<b>14,745,069</b>	<b>15,330,661</b>
<b>Financial Indicators</b>	<b>Total Change</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
1) Increase/(Decrease) in Net Financial Assets	(58,503)	109,334	(383,591)	(395,631)	(42,179)	(496,162)	220,789	(323,121)	515,377	(155,464)	892,145
2) Increase/(Decrease) in Tangible Capital Assets	6,359,122	(89,457)	661,289	2,471,927	960,855	1,422,100	(122,354)	919,496	(196,197)	638,016	(306,553)
3) Increase/(Decrease) in Accumulated Surplus	6,300,619	19,877	277,698	2,076,296	918,676	925,938	98,435	596,375	319,180	482,552	585,592



**Table 4-2**  
**Statement of Operations: Water Services**  
**UNAUDITED: For Financial Planning Purposes Only**  
**2021-2030**

	Notes	Forecast									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Water Revenue</b>											
Base Charge Revenue		457,838	493,817	533,320	577,824	627,847	683,947	746,951	815,958	889,998	969,402
Rate Based Revenue		1,238,924	1,320,173	1,407,965	1,504,448	1,610,390	1,726,624	1,854,365	1,992,348	2,139,211	2,296,445
Earned Development Charges Revenue	3	-	160,929	1,914,026	851,500	971,500	24,000	350,500	-	-	-
Developer Contributions	4	-	-	-	-	-	-	-	-	-	-
Interest Earned on Long-term Accounts Receivable	2	-	-	-	-	-	-	-	-	-	-
Other Revenue	6	47,600	47,600	47,600	47,602	47,600	47,601	47,600	47,599	47,600	47,601
<b>Total Revenues</b>		<b>1,744,362</b>	<b>2,022,519</b>	<b>3,902,911</b>	<b>2,981,374</b>	<b>3,257,337</b>	<b>2,482,172</b>	<b>2,999,416</b>	<b>2,855,905</b>	<b>3,076,809</b>	<b>3,313,448</b>
<b>Water Expenses</b>											
Operating Expenses	Sch. 4-1	1,566,028	1,584,110	1,657,542	1,832,926	2,071,721	2,096,925	2,113,443	2,221,842	2,275,041	2,393,572
Interest on Debt	2	-	-	-	23,627	34,778	33,458	32,094	30,686	29,232	27,731
Amortization	4	158,457	160,711	169,073	206,145	224,900	253,354	257,504	284,197	289,984	306,553
Loss on Disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
<b>Total Expenses</b>		<b>1,724,485</b>	<b>1,744,821</b>	<b>1,826,615</b>	<b>2,062,698</b>	<b>2,331,399</b>	<b>2,383,737</b>	<b>2,403,041</b>	<b>2,536,725</b>	<b>2,594,257</b>	<b>2,727,856</b>
<b>Annual Surplus/(Deficit)</b>		<b>19,877</b>	<b>277,698</b>	<b>2,076,296</b>	<b>918,676</b>	<b>925,938</b>	<b>98,435</b>	<b>596,375</b>	<b>319,180</b>	<b>482,552</b>	<b>585,592</b>
Accumulated Surplus/(Deficit), beginning of year	5	9,030,042	9,049,919	9,327,617	11,403,913	12,322,589	13,248,527	13,346,962	13,943,337	14,262,517	14,745,069
Accumulated Surplus/(Deficit), end of year		9,049,919	9,327,617	11,403,913	12,322,589	13,248,527	13,346,962	13,943,337	14,262,517	14,745,069	15,330,661
<b>Note 5:</b>											
<b>Accumulated Surplus/(Deficit) Reconciliation:</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
<b>Reserve Balances</b>											
Reserves: Development Charges		943,315	1,075,699	(545,542)	(1,082,402)	(1,718,157)	(1,364,687)	(1,290,311)	(847,759)	(386,985)	92,521
Reserves: Gas Tax		-	-	-	-	-	-	-	-	-	-
Reserves: Capital/Other		489,981	106,390	437,733	738,680	201,882	380,714	14,273	484,922	283,276	1,127,738
<b>Total Reserves Balance</b>		<b>1,433,296</b>	<b>1,182,089</b>	<b>(107,809)</b>	<b>(343,722)</b>	<b>(1,516,275)</b>	<b>(983,973)</b>	<b>(1,276,038)</b>	<b>(362,837)</b>	<b>(103,709)</b>	<b>1,220,259</b>
Less: Debt Obligations and Deferred Revenue		(943,315)	(1,075,699)	(726,974)	(1,070,100)	(1,029,464)	(987,507)	(944,187)	(899,459)	(853,277)	(898,115)
Add: Long-term Accounts Receivable	3	-	-	545,542	1,082,402	1,718,157	1,364,687	1,290,311	847,759	386,985	-
Add: Tangible Capital Assets	4	8,559,938	9,221,227	11,693,154	12,654,009	14,076,109	13,953,755	14,873,251	14,677,054	15,315,070	15,008,517
<b>Total Ending Balance</b>		<b>9,049,919</b>	<b>9,327,617</b>	<b>11,403,913</b>	<b>12,322,589</b>	<b>13,248,527</b>	<b>13,346,962</b>	<b>13,943,337</b>	<b>14,262,517</b>	<b>14,745,069</b>	<b>15,330,661</b>
<b>Financial Indicators</b>	<b>Total Change</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
1) Expense to Revenue Ratio		99%	86%	47%	69%	72%	96%	80%	89%	84%	82%
2) Increase/(Decrease) in Accumulated Surplus	6,300,619	19,877	277,698	2,076,296	918,676	925,938	98,435	596,375	319,180	482,552	585,592



Schedule 4-1  
Statement of Operating Expenses: Water Services  
UNAUDITED: For Financial Planning Purposes Only  
2021-2030

	Notes	Forecast									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Operating Expenses</b>											
WAT-UTLY-SALARY		100,200	102,200	104,200	148,800	151,800	154,800	157,900	161,100	164,300	167,600
WAT-UTLY-WAGES		93,600	95,500	97,400	99,300	101,300	103,300	105,400	107,500	109,700	111,900
WAT-UTLY-WAGES OT		18,800	19,200	19,600	20,000	20,400	20,800	21,200	21,600	22,000	22,400
WAT-UTLY-CPP		6,100	6,200	6,300	6,400	6,500	6,600	6,700	6,800	6,900	7,000
WAT-UTLY-EI		2,600	2,700	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500
WAT-UTLY-EHT		3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200
WAT-UTLY-WSIB		4,800	4,900	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700
WAT-UTLY-OMERS		15,300	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700	18,100
WAT-UTLY-GROUP BENEFITS		18,800	19,200	19,600	20,000	20,400	20,800	21,200	21,600	22,000	22,400
WAT-UTLY-TRAINING		10,100	10,400	10,700	11,000	11,300	11,600	11,900	12,300	12,700	13,100
WAT-UTLY-OFFICE SUPPLIES		1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
WAT-UTLY-POSTAGE		4,800	4,900	5,000	5,200	5,400	5,600	5,800	6,000	6,200	6,400
WAT-UTLY-UNIFORMS		2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000	3,100
WAT-UTLY-SMALL TOOLS		3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	4,100
WAT-UTLY-FUEL		1,500	1,600	1,700	1,800	1,900	2,000	2,100	2,200	2,300	2,400
PURCHASED WATER FROM REGION		800,328	850,510	904,542	963,626	1,028,221	1,098,825	1,176,143	1,259,542	1,348,341	1,442,872
WAT-UTLY-R&M EQUIPMENT		2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000
WAT-UTLY-R&M ENVIRON INFRSTRCT		32,700	33,700	34,700	35,700	36,800	37,900	39,000	40,200	41,400	42,600
WAT-UTLY-WATER		2,600	2,700	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500
WAT-UTLY-COMMUNICATION		1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
WAT-UTLY-INSURANCE		21,400	22,000	22,700	23,400	24,100	24,800	25,500	26,300	27,100	27,900
WAT-UTLY-SOFTWARE FEES		1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
WAT-UTLY-CONSULTANT FEES		10,700	11,000	11,300	11,600	11,900	12,300	12,700	13,100	13,500	13,900
WAT-UTLY-OUTSIDE SERVICES		24,300	25,000	25,800	26,600	27,400	28,200	29,000	29,900	30,800	31,700
WAT-UTLY-EQUIPMENT ALLOCATIN		22,000	22,700	23,400	24,100	24,800	25,500	26,300	27,100	27,900	28,700
WAT-UTLY-ALLOCTN OF PRGM SUP		296,100	305,000	314,200	323,600	333,300	343,300	353,600	364,200	375,100	386,400
WAT-BLK-R&M FACILITIES		2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000
WAT-BLK-R&M ENVIRON INFRSTRCT		2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700
WAT-BLK-HYDRO		2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000
WAT-BLK-COMMUNICATION		900	900	900	900	900	900	900	900	900	900
WAT-BLK-OUTSIDE SERVICES		3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400	4,500	4,600
WAT-BLK-EQUIPMENT ALLOCATIN		1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
WAT-UTLY-ADVERTISING		500	500	500	500	500	500	500	500	500	500
WAT-DIST-WATER RATE STUDY & FIN PLAN		-	-	-	-	75,000	-	-	-	-	-
Non TCA - Expenses from Capital Budget	7	51,000	-	-	54,000	132,000	140,000	57,000	59,000	-	-
<b>TOTAL OPERATING EXPENSES</b>		<b>1,566,028</b>	<b>1,584,110</b>	<b>1,657,542</b>	<b>1,832,926</b>	<b>2,071,721</b>	<b>2,096,925</b>	<b>2,113,443</b>	<b>2,221,842</b>	<b>2,275,041</b>	<b>2,393,572</b>



**Table 4-3**  
**Statement of Changes in Net Financial Assets/Debt: Water Services**  
**UNAUDITED: For Financial Planning Purposes Only**  
**2021-2030**

	Notes	Forecast									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Annual Surplus/(Deficit)		19,877	277,698	2,076,296	918,676	925,938	98,435	596,375	319,180	482,552	585,592
Less: Acquisition of Tangible Capital Assets	4	(69,000)	(822,000)	(2,641,000)	(1,167,000)	(1,647,000)	(131,000)	(1,177,000)	(88,000)	(928,000)	-
Add: Amortization of Tangible Capital Assets	4	158,457	160,711	169,073	206,145	224,900	253,354	257,504	284,197	289,984	306,553
(Gain)/Loss on disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
Add: Proceeds on Sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
Add: Write-downs of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
		89,457	(661,289)	(2,471,927)	(960,855)	(1,422,100)	122,354	(919,496)	196,197	(638,016)	306,553
Less: Acquisition of Supplies Inventory		-	-	-	-	-	-	-	-	-	-
Less: Acquisition of Prepaid Expenses		-	-	-	-	-	-	-	-	-	-
Add: Consumption of Supplies Inventory		-	-	-	-	-	-	-	-	-	-
Add: Use of Prepaid Expenses		-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-
<b>Increase/(Decrease) in Net Financial Assets/(Net Debt)</b>		<b>109,334</b>	<b>(383,591)</b>	<b>(395,631)</b>	<b>(42,179)</b>	<b>(496,162)</b>	<b>220,789</b>	<b>(323,121)</b>	<b>515,377</b>	<b>(155,464)</b>	<b>892,145</b>
Net Financial Assets/(Net Debt), beginning of year		380,647	489,981	106,390	(289,241)	(331,420)	(827,582)	(606,793)	(929,914)	(414,537)	(570,001)
<b>Net Financial Assets/(Net Debt), end of year</b>		<b>489,981</b>	<b>106,390</b>	<b>(289,241)</b>	<b>(331,420)</b>	<b>(827,582)</b>	<b>(606,793)</b>	<b>(929,914)</b>	<b>(414,537)</b>	<b>(570,001)</b>	<b>322,144</b>

Financial Indicators	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1) Acquisition of Tangible Capital Assets (Cumulative)	69,000	891,000	3,532,000	4,699,000	6,346,000	6,477,000	7,654,000	7,742,000	8,670,000	8,670,000
2) Annual Surplus/Deficit before Amortization (Cumulative)	178,334	616,743	2,862,112	3,986,933	5,137,771	5,489,560	6,343,439	6,946,816	7,719,352	8,611,497
3) Ratio of Annual Surplus before Amortization to Acquisition of TCA's (Cumulative)	2.58	0.69	0.81	0.85	0.81	0.85	0.83	0.90	0.89	0.99





Table 4-4  
Statement of Cash Flow – Indirect Method: Water Services  
UNAUDITED: For Financial Planning Purposes Only  
2021-2030

	Notes	Forecast									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Operating Transactions</b>											
Annual Surplus/Deficit		19,877	277,698	2,076,296	918,676	925,938	98,435	596,375	319,180	482,552	585,592
Add: Amortization of TCA's	4	158,457	160,711	169,073	206,145	224,900	253,354	257,504	284,197	289,984	306,553
(Gain)/Loss on disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
Less: Earned Deferred Revenue	3	-	(160,929)	(1,914,026)	(851,500)	(971,500)	(24,000)	(350,500)	-	-	-
Less: Developer Contributions		-	-	-	-	-	-	-	-	-	-
Add: Deferred Revenue Proceeds		260,579	293,314	292,785	314,640	335,745	377,470	424,876	442,552	460,774	479,506
Change in A/R (Increase)/Decrease		361,084	(6,759)	(24,771)	(26,898)	(29,792)	(48,805)	(20,567)	(40,307)	(43,739)	(46,679)
Change in A/P Increase/(Decrease)		(18,489)	2,858	4,665	4,957	8,195	10,857	1,162	6,719	7,184	7,576
Less: Interest Proceeds		-	-	-	-	-	-	-	-	-	-
Cash Provided by Operating Transactions		781,508	566,893	604,022	566,020	493,486	667,311	908,850	1,012,341	1,196,755	1,332,548
<b>Capital Transactions</b>											
Proceeds on sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
Less: Cash Used to acquire Tangible Capital Assets	4	(69,000)	(822,000)	(2,641,000)	(1,167,000)	(1,647,000)	(131,000)	(1,177,000)	(88,000)	(928,000)	-
Cash Applied to Capital Transactions		(69,000)	(822,000)	(2,641,000)	(1,167,000)	(1,647,000)	(131,000)	(1,177,000)	(88,000)	(928,000)	-
<b>Investing Transactions</b>											
Proceeds from Investments		-	-	-	-	-	-	-	-	-	-
Less: Cash Used to Acquire Investments		-	-	-	-	-	-	-	-	-	-
Cash Provided by (applied to) Investing Transactions		-	-	-	-	-	-	-	-	-	-
<b>Financing Transactions</b>											
Proceeds from Debt Issue	2	-	-	726,974	369,500	-	-	-	-	-	-
Add: Long-term Accounts Receivable Proceeds (recovery of debt)	2	-	-	-	-	-	-	-	-	-	-
Less: Debt Repayment (Principal only)	2	-	-	-	(26,374)	(40,636)	(41,957)	(43,320)	(44,728)	(46,182)	(47,683)
Cash Applied to Financing Transactions		-	-	726,974	343,126	(40,636)	(41,957)	(43,320)	(44,728)	(46,182)	(47,683)
Increase in Cash and Cash Equivalents		712,508	(255,107)	(1,310,004)	(257,854)	(1,194,150)	494,354	(311,470)	879,613	222,573	1,284,865
Cash and Cash Equivalents, beginning of year	1	458,382	1,170,890	915,783	(394,221)	(652,075)	(1,846,225)	(1,351,871)	(1,663,341)	(783,728)	(561,155)
Cash and Cash Equivalents, end of year	1	1,170,890	915,783	(394,221)	(652,075)	(1,846,225)	(1,351,871)	(1,663,341)	(783,728)	(561,155)	723,710



## Water

### Notes to Financial Plan

The financial plan format as outlined in Chapter 4 closely approximates the full accrual format used by municipalities (2009 onward) on their audited financial statements. However, the financial plan is not an audited document and contains various estimates. In this regard, Section 3 (2) of O.Reg. 453/07 states the following:

“Each of the following sub-subparagraphs applies only if the information referred to in the sub-subparagraph is known to the owner at the time the financial plans are prepared:

1. Sub-subparagraphs 4 i A, B and C of subsection (1)
2. Sub-subparagraphs 4 iii A, C, E and F of subsection (1).”

The information referred to in sub-subparagraphs 4 i A, B and C of subsection (1) includes:

- A. Total financial assets (i.e. cash and receivables);
- B. Total liabilities (i.e. payables, debt, and deferred revenue);
- C. Net debt (i.e. the difference between A and B above).

The information referred to in sub-subparagraphs 4 iii A, C, E and F of subsection (1) includes:

- A. Operating transactions that are cash received from revenues, cash paid for operating expenses and finance charges
- B. Investing transactions that are acquisitions and disposal of investments
- C. Change in cash and cash equivalents during the year
- D. Cash and cash equivalents at the beginning and end of the year

In order to show a balanced financial plan in a full accrual format for the Township, some of the items listed above have been estimated given that the Township does not maintain all financial asset and liability data separately for water. Usually, this type of data is combined with the financial assets and liabilities of other departments and services given that there is not a current obligation to disclose this data separately (as there is with revenue and expenses).



The assumptions used have been documented below:

## 1. Cash, Receivables and Payables

It is assumed that the opening cash balances required to complete the financial plan are equal to:

Ending Reserve/Reserve Fund Balance  
*Plus:* Ending Accounts Payable Balance  
*Less:* Ending Accounts Receivable Balance  
*Equals: Approximate Ending Cash Balance*

For West Lincoln, receivable and payable balances were estimated for each year of the forecast based on the following factors:

- a) Receivables: Based on the historical levels of water and wastewater receivables as a percentage of annual water and wastewater revenue from user fees earned (as per the 2017 and 2018 Financial Information Returns along with additional data provided by the Township for 2017 through 2019); and
- b) Payables: Based on historical levels of water and wastewater payables as a percentage of annual water and wastewater expenses (as per the 2017 and 2018 Financial Information Returns along with additional data provided by the Township for 2017 through 2019).

## 2. Debt

The Township currently has no outstanding water related debt. There are currently additional debt proceeds anticipated throughout the forecast period. Principal repayments for new debt over the forecast period are scheduled as follows:



Year	Principal Payments
2021	-
2022	-
2023	-
2024	26,374
2025	40,636
2026	41,957
2027	43,320
2028	44,728
2029	46,182
2030	47,683
<b>Total</b>	<b>290,880</b>

For financial reporting purposes, debt principal payments represent a decrease in debt liability and the interest payments represent a current year operating expense.

### 3. Deferred Revenue

Deferred revenue is typically made up of water development charge (D.C.) reserve balances and/or gas tax reserve fund balances, which are considered to be a liability for financial reporting purposes until the funds are used to emplace the works for which they have been collected.

In years when the water development charge reserve fund balance is negative, it is shown as an asset ("Other - Long-term receivables") for financial reporting purposes, representing future amounts to be collected from developers. Note that the 2020 Rate Study anticipates that the water D.C. reserve fund will be in a deficit position from 2023 to 2029. Therefore, the deficit balances are being financed internally through the overall general water revenues. In future years, as D.C. revenue is received, there will be an adjustment to refund the overall water account to repay the internal financing.

### 4. Tangible Capital Assets

- Opening net book value of tangible capital assets includes water related assets in the following categories:
  - i. Land,
  - ii. Facilities;
  - iii. Water Meters;



- iv. Hydrants;
- v. Hydrant Leads;
- vi. Watermains;
- vii. Curb Stops;
- viii. Valves; and
- ix. Vehicles and Equipment

- Amortization is calculated based on the straight-line approach.
- Write-offs are assumed to equal \$0 for each year in the forecast period.
- Tangible capital assets are shown on a net book value basis.
- Gains/losses on disposal are assumed to be \$0.
- Contributed Assets are assumed to be \$0.
- The Township does not have any lead piping in the municipal water system.



The balance of tangible capital assets is summarized as follows:

Asset Historical Cost	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Tangible Capital Asset Balance	11,987,874	12,030,599	12,792,787	15,403,239	16,540,142	18,100,855	18,198,311	19,306,765	19,359,720	20,213,110
Acquisitions	69,000	822,000	2,641,000	1,167,000	1,647,000	131,000	1,177,000	88,000	928,000	-
Disposals	26,275	59,812	30,548	30,097	86,287	33,544	68,546	35,045	74,610	-
<b>Closing Tangible Capital Asset Balance</b>	<b>12,030,599</b>	<b>12,792,787</b>	<b>15,403,239</b>	<b>16,540,142</b>	<b>18,100,855</b>	<b>18,198,311</b>	<b>19,306,765</b>	<b>19,359,720</b>	<b>20,213,110</b>	<b>20,213,110</b>
Opening Accumulated Amortization	3,338,479	3,470,661	3,571,560	3,710,085	3,886,133	4,024,746	4,244,556	4,433,514	4,682,666	4,898,040
Amortization Expense	158,457	160,711	169,073	206,145	224,900	253,354	257,504	284,197	289,984	306,553
Amortization on Disposal	26,275	59,812	30,548	30,097	86,287	33,544	68,546	35,045	74,610	-
<b>Ending Accumulated Amortization</b>	<b>3,470,661</b>	<b>3,571,560</b>	<b>3,710,085</b>	<b>3,886,133</b>	<b>4,024,746</b>	<b>4,244,556</b>	<b>4,433,514</b>	<b>4,682,666</b>	<b>4,898,040</b>	<b>5,204,593</b>
<b>Net Book Value</b>	<b>8,559,938</b>	<b>9,221,227</b>	<b>11,693,154</b>	<b>12,654,009</b>	<b>14,076,109</b>	<b>13,953,755</b>	<b>14,873,251</b>	<b>14,677,054</b>	<b>15,315,070</b>	<b>15,008,517</b>

## 5. Accumulated Surplus

Opening accumulated surplus for the forecast period is reconciled as follows:

Water	2021 Opening Accumulated Surplus
<b>Reserve Balances</b>	
Reserves: Development Charges	682,736
Reserves: Capital/Other	380,647
<b>Total Reserves Balance</b>	<b>1,063,383</b>
Less: Debt Obligations and Deferred Revenue	(682,736)
Add: Tangible Capital Assets	8,649,395
<b>Total Opening Balance</b>	<b>9,030,042</b>

The accumulated surplus reconciliation for all years within the forecast period is contained in Table 4-2.

## 6. Other Revenue

Other revenue includes miscellaneous service fees, penalty & interest charges as well as revenues from the bulk water sales.



# Chapter 5

## Process for Financial Plan Approval and Submission to the Province



## 5. Process for Financial Plan Approval and Submission to the Province

As mentioned in section 1.2, preparation of and approval of a financial plan for water assets that meets the requirements of the Act is mandatory for municipal water providers. Proof of the plan preparation and approval is a key submission requirement for municipal drinking water licensing and, upon completion, must be submitted to the MECP. The process established for plan approval, public circulation and filing is set out in O. Reg. 453/07 and can be summarized as follows:

1. The financial plan must be approved by resolution of Council of the Township who owns the drinking water system or the governing body of the owner. (O. Reg. 453/07, section 3 (1) 1).
2. The owner of the drinking water system must provide notice advertising the availability of the financial plan. The plans will be made available to the public upon request and without charge. The plans must also be made available to the public on the Township's website. (O. Reg. 453/07, section 3 (1) 5).
3. The owner of the drinking water system must provide a copy of the financial plan to the Director of Policy Branch, Ministry of Municipal Affairs and Housing. (O. Reg. 453/07, section 3 (1) 6).
4. The owner of the drinking water system must provide proof satisfactory to the Director that the financial plans for the system satisfy the requirements under the *Safe Drinking Water Act*. (S.D.W.A. section 32 (5) 2. ii.).





# Chapter 6

## Recommendations



## 6. Recommendations

This report presents the water financial plan for the Township in accordance with the mandatory reporting formats for water systems as detailed in O.Reg. 453/07. It is important to note that while mandatory, the financial plan is provided for Council's interest and approval however, for decision making purposes, it may be more informative to rely on the information contained within the 2020 Rate Study. Nevertheless, Council is required to pass certain resolutions with regard to this plan and regulations and it is recommended that:

1. The Township of West Lincoln Water Financial Plan prepared by Watson & Associates Economists Ltd. dated November 10, 2020 be approved.
2. Notice of availability of the Financial Plan be advertised.
3. The Financial Plan dated November 10, 2020 be submitted to the Ministry of Municipal Affairs and Housing (O.Reg. 453/07, Section 3 (1) 6).
4. The resolution of Council approving the Financial Plan be submitted to the MECP, satisfying the requirements under the Safe Drinking Water Act. (S.D.W.A. Section 32 (5) 2. ii.).



# Appendices



# Appendix A

## Water Budget and Forecast Summary Tables



## Appendix A-1 Water Service Capital Forecast 2021-2030

Description	Total	Forecast									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Capital Expenditures</b>											
<b>Lifecycle:</b>											
Water Meters - Replacement Program	376,000	31,000	52,000	32,000	32,000	55,000	34,000	69,000	35,000	36,000	-
Rolling Stock - 2025 - 3/4 Ton Van - To replace 2007 Chevrolet	43,000	-	-	-	-	43,000	-	-	-	-	-
Main - Replace - Design - 2020 - Brock St - From: RR 20 To: North End	-	-	-	-	-	-	-	-	-	-	-
Facilities - 2027 - Bulk Water Station - Replace roof shingles	11,000	-	-	-	-	-	-	11,000	-	-	-
Main - Upsize and Replace - Constuction - 2020 - Griffin St. N - From: RR20 and RR14 Intersection	-	-	-	-	-	-	-	-	-	-	-
Main - Replace - Construction - 2022 - Brock St - From: RR 20 To: North End	515,000	-	515,000	-	-	-	-	-	-	-	-
Main - Replace - Construction - 2029 - Wade Road N - From: West Street To: South Limit	837,000	-	-	-	-	-	-	-	-	837,000	-
Equipment - Miscellaneous Water Equipment	50,000	5,000	5,000	5,000	5,000	6,000	6,000	6,000	6,000	6,000	-
Water Meters - New Installation	369,000	33,000	35,000	37,000	39,000	41,000	43,000	45,000	47,000	49,000	-
Facilities - 2027 - Bulk Water Building - New Building	345,000	-	-	-	-	-	-	345,000	-	-	-
<b>Studies:</b>											
Operating-Study - Water Loss Study	51,000	51,000	-	-	-	-	-	-	-	-	-
Operating-Study - Water Distribution System - Leak detection program	281,000	-	-	-	54,000	55,000	56,000	57,000	59,000	-	-
Operating-Other - Water Loss Program	161,000	-	-	-	-	77,000	84,000	-	-	-	-
<b>Growth Related:</b>											
Main - Replace - Construction - 2020 - West Street - From: South Grimsby Rd 5 To: Wade Rd	-	-	-	-	-	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2022 - Spring Creek Rd - From: Station St To: Hornak Rd	13,000	-	13,000	-	-	-	-	-	-	-	-
Main - New - Design - 2022 - Spring Creek Rd - From: Hornak Rd To: SG Rd 5	66,000	-	66,000	-	-	-	-	-	-	-	-
Main - New - Design - 2022 - Spring Creek Rd - From: SG Rd 5 To: SG Rd 6	40,000	-	40,000	-	-	-	-	-	-	-	-
Main - New - Design - 2022 - South Grimsby Rd 5 - From: Spring Creek Rd To: Northridge Dr	40,000	-	40,000	-	-	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2022 - South Grimsby Rd 5 - From: Northridge Dr To: HWY 20	28,000	-	28,000	-	-	-	-	-	-	-	-
Main - New - Design - 2022 - South Grimsby Rd 6 - Extension - From: Spring Creek Rd To: HWY 20	28,000	-	28,000	-	-	-	-	-	-	-	-
Main - Upsize and Replace - Constuction - 2023 - Sping Creek Rd - From: Station St To: Hornak Rd	125,000	-	-	125,000	-	-	-	-	-	-	-



## Appendix A-1 (Continued)

### Water Service Capital Forecast 2021-2030

Description	Total	Forecast									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Main - New - Construction - 2023 - SG RD 5 - From: Spring Creek Rd To: Northridge Dr	468,000	-	-	468,000	-	-	-	-	-	-	-
Main - Upsize and Replace - Construction - 2023 - SG RD 5 - From: Northridge Dr To: HWY 20	334,000	-	-	334,000	-	-	-	-	-	-	-
Main - New - Construction - 2023 - Spring Creek Rd - From: Hornak Rd To: SG Rd 5	805,000	-	-	805,000	-	-	-	-	-	-	-
Main - New - Construction - 2023 - Spring Creek Rd - From: SG Rd 5 To: SG Rd 6	416,000	-	-	416,000	-	-	-	-	-	-	-
Main - New - Construction - 2023 - SG RD 6 - From: Spring Creek Rd To: HWY 20	377,000	-	-	377,000	-	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2023 - Van Woudenberg Way - From: Station St To: West Boundary Limits	42,000	-	-	42,000	-	-	-	-	-	-	-
Main - Upsize and Replace - Construction - 2024 - Van Woudenberg Way - From: Station St To: West Boundary Limits	383,000	-	-	-	383,000	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2024 - St. Catherines St - From: Industrial Park Rd To: Frank St	71,000	-	-	-	71,000	-	-	-	-	-	-
Main - New - Design - 2024 - St. Catherines St - From: Frank St To: Griffin St	8,000	-	-	-	8,000	-	-	-	-	-	-
Main - Upsize and Replace - Design - 2024 - Griffin St. N - From: Griffin St To: Station & West St	17,000	-	-	-	17,000	-	-	-	-	-	-
Main - New - Construction - 2024 - Industrial Park Rd - From: London Rd To: Spring Creek Rd	612,000	-	-	-	612,000	-	-	-	-	-	-
Main - Upsize and Replace - Construction - 2025 - St. Catherines St. - From: Industrial Park Rd To: Frank St	794,000	-	-	-	-	794,000	-	-	-	-	-
Main - New - Construction - 2025 - St. Catherines St. - From: Frank St To: Griffin St	119,000	-	-	-	-	119,000	-	-	-	-	-
Main - Upsize and Replace - Construction - 2025 - Griffin St. N - From: Griffin St To: Station St	148,000	-	-	-	-	148,000	-	-	-	-	-
Main - New - Construction - 2025 - Industrial Park Rd - From: Pearson Rd To: Urban Boundary	441,000	-	-	-	-	441,000	-	-	-	-	-
Main - Replace - Design - 2026 - Colver St - From: RR14 To: Wade Rd	48,000	-	-	-	-	-	48,000	-	-	-	-
Main - Replace - Construction - 2027 - Colver St - From: RR14 To: Wade Rd	701,000	-	-	-	-	-	-	701,000	-	-	-
<b>Total Capital Expenditures</b>	<b>9,163,000</b>	<b>120,000</b>	<b>822,000</b>	<b>2,641,000</b>	<b>1,221,000</b>	<b>1,779,000</b>	<b>271,000</b>	<b>1,234,000</b>	<b>147,000</b>	<b>928,000</b>	<b>-</b>
<b>Capital Financing</b>											
Provincial/Federal Grants	-										
Development Charges Reserve Fund	4,272,456	-	160,929	1,914,026	851,500	971,500	24,000	350,500	-	-	-
Non-Growth Related Debenture Requirements	1,096,474	-	-	726,974	369,500	-	-	-	-	-	-
Growth Related Debenture Requirements	-	-	-	-	-	-	-	-	-	-	-
Operating Contributions	-	-	-	-	-	-	-	-	-	-	-
Lifecycle Reserve Fund	-	-	-	-	-	-	-	-	-	-	-
Water Reserve	3,794,071	120,000	661,071	-	-	807,500	247,000	883,500	147,000	928,000	-
<b>Total Capital Financing</b>	<b>9,163,000</b>	<b>120,000</b>	<b>822,000</b>	<b>2,641,000</b>	<b>1,221,000</b>	<b>1,779,000</b>	<b>271,000</b>	<b>1,234,000</b>	<b>147,000</b>	<b>928,000</b>	<b>-</b>



## Appendix A-2 Schedule of Non-Growth-Related Debenture Repayments 2021-2030

Debenture Year	Principal (Inflated)	Forecast									
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2021	-		-	-	-	-	-	-	-	-	-
2022	-			-	-	-	-	-	-	-	-
2023	726,974				50,000	50,000	50,000	50,000	50,000	50,000	50,000
2024	369,500					25,414	25,414	25,414	25,414	25,414	25,414
2025	-						-	-	-	-	-
2026	-							-	-	-	-
2027	-								-	-	-
2028	-									-	-
2029	-										-
2030	-										
<b>Total Annual Debt Charges</b>	<b>1,096,474</b>	-	-	-	50,000	75,414	75,414	75,414	75,414	75,414	75,414

## Appendix A-3 Water Reserve Continuity 2021-2030

Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	380,647	489,981	106,390	437,733	738,680	201,882	380,714	14,273	484,922	283,276
Transfer from Operating	229,333	277,480	331,343	300,947	345,702	425,832	517,059	617,649	726,354	844,462
Transfer to Capital	120,000	661,071	-	-	807,500	247,000	883,500	147,000	928,000	-
Transfer to Operating	-	-	-	-	75,000	-	-	-	-	-
<b>Closing Balance</b>	<b>489,981</b>	<b>106,390</b>	<b>437,733</b>	<b>738,680</b>	<b>201,882</b>	<b>380,714</b>	<b>14,273</b>	<b>484,922</b>	<b>283,276</b>	<b>1,127,738</b>



# Appendix A-4 Water Development Charges Reserve Fund Continuity 2021-2030

Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	682,736	943,315	1,075,700	(545,541)	(1,082,401)	(1,718,156)	(1,364,685)	(1,290,309)	(847,756)	(386,982)
Development Charge Proceeds	242,083	272,222	303,482	335,864	369,434	404,229	450,176	459,175	468,362	477,692
Transfer to Capital	-	160,929	1,914,026	851,500	971,500	24,000	350,500	-	-	-
Transfer to Operating	-	-	-	-	-	-	-	-	-	-
<b>Closing Balance</b>	<b>924,819</b>	<b>1,054,608</b>	<b>(534,844)</b>	<b>(1,061,177)</b>	<b>(1,684,467)</b>	<b>(1,337,926)</b>	<b>(1,265,009)</b>	<b>(831,134)</b>	<b>(379,394)</b>	<b>90,710</b>
Interest	18,496	21,092	(10,697)	(21,224)	(33,689)	(26,759)	(25,300)	(16,623)	(7,588)	1,814
Required from Development Charges	-	160,929	1,914,026	851,500	971,500	24,000	350,500	-	-	-





## Appendix A-5 Water Operating Forecast 2021-2030

Description	Forecast									
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Expenditures</b>										
<b>Operating Costs</b>										
WAT-UTLY-SALARY	100,200	102,200	104,200	148,800	151,800	154,800	157,900	161,100	164,300	167,600
WAT-UTLY-WAGES	93,600	95,500	97,400	99,300	101,300	103,300	105,400	107,500	109,700	111,900
WAT-UTLY-WAGES OT	18,800	19,200	19,600	20,000	20,400	20,800	21,200	21,600	22,000	22,400
WAT-UTLY-CPP	6,100	6,200	6,300	6,400	6,500	6,600	6,700	6,800	6,900	7,000
WAT-UTLY-EI	2,600	2,700	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500
WAT-UTLY-EHT	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200
WAT-UTLY-WSIB	4,800	4,900	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700
WAT-UTLY-OMERS	15,300	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700	18,100
WAT-UTLY-GROUP BENEFITS	18,800	19,200	19,600	20,000	20,400	20,800	21,200	21,600	22,000	22,400
WAT-UTLY-TRAINING	10,100	10,400	10,700	11,000	11,300	11,600	11,900	12,300	12,700	13,100
WAT-UTLY-OFFICE SUPPLIES	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
WAT-UTLY-POSTAGE	4,800	4,900	5,000	5,200	5,400	5,600	5,800	6,000	6,200	6,400
WAT-UTLY-UNIFORMS	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000	3,100
WAT-UTLY-SMALL TOOLS	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	4,100
WAT-UTLY-FUEL	1,500	1,600	1,700	1,800	1,900	2,000	2,100	2,200	2,300	2,400
PURCHASED WATER FROM REGION	800,328	850,510	904,542	963,626	1,028,221	1,098,825	1,176,143	1,259,542	1,348,341	1,442,872
WAT-UTLY-R&M EQUIPMENT	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000
WAT-UTLY-R&M ENVIRON INFRSTRCT	32,700	33,700	34,700	35,700	36,800	37,900	39,000	40,200	41,400	42,600
WAT-UTLY-WATER	2,600	2,700	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500
WAT-UTLY-COMMUNICATION	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
WAT-UTLY-INSURANCE	21,400	22,000	22,700	23,400	24,100	24,800	25,500	26,300	27,100	27,900
WAT-UTLY-SOFTWARE FEES	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
WAT-UTLY-CONSULTANT FEES	10,700	11,000	11,300	11,600	11,900	12,300	12,700	13,100	13,500	13,900
WAT-UTLY-OUTSIDE SERVICES	24,300	25,000	25,800	26,600	27,400	28,200	29,000	29,900	30,800	31,700
WAT-UTLY-EQUIPMENT ALLOCATIN	22,000	22,700	23,400	24,100	24,800	25,500	26,300	27,100	27,900	28,700
WAT-UTLY-ALLOCTN OF PRGMSUP	296,100	305,000	314,200	323,600	333,300	343,300	353,600	364,200	375,100	386,400
WAT-BLK-R&M FACILITIES	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000
WAT-BLK-R&M ENVIRON INFRSTRCT	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700
WAT-BLK-HYDRO	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	3,000
WAT-BLK-COMMUNICATION	900	900	900	900	900	900	900	900	900	900
WAT-BLK-OUTSIDE SERVICES	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400	4,500	4,600
WAT-BLK-EQUIPMENT ALLOCATIN	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
WAT-UTLY-ADVERTISING	500	500	500	500	500	500	500	500	500	500
WAT-DIST-WATER RATE STUDY & FIN PL	-	-	-	-	75,000	-	-	-	-	-
<b>Sub Total Operating</b>	<b>1,515,028</b>	<b>1,584,110</b>	<b>1,657,542</b>	<b>1,778,926</b>	<b>1,939,721</b>	<b>1,956,925</b>	<b>2,056,443</b>	<b>2,162,842</b>	<b>2,275,041</b>	<b>2,393,572</b>



## Appendix A-5 Continued Water Operating Budget and Forecast 2021-2030

Description	Forecast									
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Capital-Related</b>										
Existing Debt (Principal) - Growth Related										
Existing Debt (Interest) - Growth Related										
New Growth Related Debt (Principal)	-	-	-	-	-	-	-	-	-	-
New Growth Related Debt (Interest)	-	-	-	-	-	-	-	-	-	-
Existing Debt (Principal) - Non-Growth Related										
Existing Debt (Interest) - Non-Growth Related										
New Non-Growth Related Debt (Principal)	-	-	-	26,374	40,636	41,957	43,320	44,728	46,182	47,683
New Non-Growth Related Debt (Interest)	-	-	-	23,627	34,778	33,458	32,094	30,686	29,232	27,731
Transfer to Capital	-	-	-	-	-	-	-	-	-	-
Transfer to Capital Reserve	229,333	277,480	331,343	300,947	345,702	425,832	517,059	617,649	726,354	844,462
<b>Sub Total Capital Related</b>	<b>229,333</b>	<b>277,480</b>	<b>331,343</b>	<b>350,947</b>	<b>421,116</b>	<b>501,246</b>	<b>592,473</b>	<b>693,064</b>	<b>801,768</b>	<b>919,876</b>
<b>Total Expenditures</b>	<b>1,744,362</b>	<b>1,861,590</b>	<b>1,988,885</b>	<b>2,129,873</b>	<b>2,360,837</b>	<b>2,458,171</b>	<b>2,648,916</b>	<b>2,855,906</b>	<b>3,076,809</b>	<b>3,313,447</b>
<b>Revenues</b>										
Base Charge	457,838	493,817	533,320	577,824	627,847	683,947	746,951	815,958	889,998	969,402
Other Revenue	-	-	-	-	-	-	-	-	-	-
WAT-UTLY-P&I										
WAT-UTLY-WATER SERVICES FEES	47,600	47,600	47,600	47,600	47,600	47,600	47,600	47,600	47,600	47,600
WAT-BLK-VARIABLE CHARGES	382,764	402,392	423,003	444,595	467,168	490,723	515,259	540,776	567,275	595,737
Contributions from Development Charges Reserve Fund	-	-	-	-	-	-	-	-	-	-
Contributions from Reserves / Reserve Funds	-	-	-	-	75,000	-	-	-	-	-
<b>Total Operating Revenue</b>	<b>888,201</b>	<b>943,809</b>	<b>1,003,922</b>	<b>1,070,019</b>	<b>1,217,614</b>	<b>1,222,270</b>	<b>1,309,810</b>	<b>1,404,334</b>	<b>1,504,873</b>	<b>1,612,740</b>
<b>Water Billing Recovery - Total</b>	<b>856,160</b>	<b>917,781</b>	<b>984,962</b>	<b>1,059,854</b>	<b>1,143,223</b>	<b>1,235,901</b>	<b>1,339,106</b>	<b>1,451,572</b>	<b>1,571,936</b>	<b>1,700,708</b>

## Appendix A-6 Water Rate Budget and Forecast 2021-2030

Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total Water Billing Recovery	856,160	917,781	984,962	1,059,854	1,143,223	1,235,901	1,339,106	1,451,572	1,571,936	1,700,708
<b>Water Rates (\$/m<sup>3</sup>)</b>										
Constant Rate (m <sup>3</sup> ) - January to June	1.41	1.48	1.55	1.63	1.71	1.80	1.89	1.98	2.08	2.19
Constant Rate (m <sup>3</sup> ) - July to December	1.48	1.55	1.63	1.71	1.80	1.89	1.98	2.08	2.19	2.30
<b>Annual Percentage Change</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>

**DATE:** November 16, 2020

**REPORT NO:** T-26-2020

**SUBJECT:** **Asset Management-Risk Framework Assessment**

**CONTACT:** Donna DeFilippis, Director of Finance

**OVERVIEW:**

- The Township received a grant of \$50,000 from FCM (Federation of Canadian Municipalities) to assist with the funding of our Asset Management Program
- The following are deliverables to be completed in 2020: Risk Framework Development, Lifecycle Framework Development and Service Level Framework Development
- Attached to this report is the Infrastructure Risk Review document

**RECOMMENDATION:**

That, report T-26-2020, regarding Asset Management-Risk Framework Assessment, dated November 16<sup>th</sup>, 2020 be received for information.

**ALIGNMENT TO STRATEGIC PLAN:**

**Theme #1 & #6**

- Strong Transportation Connections
- Efficient, Fiscally Responsible Operations

**BACKGROUND:**

On December 13, 2017, the Province of Ontario approved O.Reg. 588/2017-Asset Management Planning for Municipal Infrastructure under the Infrastructure for Jobs and Prosperity Act, 2015

The following is an outline of some of the key requirements, their effective dates and the Township's progress on each item:

**July 1, 2019** – all municipal governments are to have a strategic asset management policy in place. This policy is to be reviewed and updated every five years, if necessary. The Township completed this requirement in April 2019.

**July 1, 2021** - all municipal governments are to have an approved asset management plan for core assets (roads, bridges and culverts, water, wastewater and storm water) that discuss current levels of service and the cost of maintaining those services. The Township currently has an Asset Management Plan; however, it does not meet the standard as required in this Regulation.

**July 1, 2023** – all municipal governments are to have an approved asset management plan for all other infrastructure assets that discuss current levels of service and the cost of maintaining those services. At the present time, the Township does not measure or have any standard level of services in place.

**July 1, 2024** – the asset management plans are to include a discussion of proposed levels of service, the assumptions related to the proposed levels of service, what activities will be required to meet proposed levels of service, and a strategy to fund the activities.

The Township has approved two Asset Management Plans to date: 2013 and 2016. These Asset Management Plans were developed based on the legislation that existed at the time. However, they would not meet the requirements as outlined in the new legislation. The goal of this legislation is that Asset Management becomes an on-going process within a municipality that ensures the effective and efficient management of all its assets. Asset Management is no longer a document that “sits on a shelf”.

At the September 17, 2018 Council meeting, staff were authorized to engage the services of PSD (Public Sector Digest) to assist Township staff with developing an Asset Management “Roadmap”. The overall Roadmap consists of the following steps:

1. State of Maturity Report - complete
2. Asset Management Policy – complete
3. Data & Asset Performance Analysis- ongoing
4. Risk and Criticality Models - complete
5. Lifecycle Activity Framework- in progress
6. Level of Service Framework- in progress
7. Financial Strategies
8. Asset Management Plan

#### **CURRENT SITUATION:**

A cross-sectional team of staff representing every department at the Township worked with our Consultant, PSD, in developing the Risk Framework for the Township’s core assets, which includes Roads, Bridges, Water, Wastewater and Storm Water Infrastructure. Although not required until 2023, the risk framework was also developed for other asset groups: Facilities, Parks, Rolling Stock and Machinery and Equipment.

The result is the document attached to this report: Infrastructure Risk Review. For each Asset category, both a framework for the Probability of Failure and the Consequence of

Failure has been developed. The elements chosen are based on data currently being collected or in the process of being collected. Once collected, the metrics are compiled into our Asset Management Software- Citywide. The risk framework will be used as part of the decision making process in the management of Township assets.

**FINANCIAL IMPLICATIONS:**

The Township's 2016 Asset Management Plan indicated a replacement cost of assets totalling \$187 million. Asset Management Planning will ensure that the Township makes the best possible investment decisions regarding those assets. The development of an Asset Management Plan is an ongoing and long-term process which requires many elements. The \$50,000 grant from FCM is of great assistance to the Township as it develops its Plan.

**INTER-DEPARTMENTAL COMMENTS:**

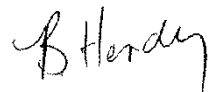
The Risk Framework was developed as a joint effort among all Township departments, with the most significant contribution from the Public Works department.

**CONCLUSION:**

O.Reg. 588/2017 has provided municipalities with requirements and deadlines that every Ontario municipality must adhere to when developing their Asset Management programs. Asset Management is a corporate wide program that will ensure that investment in infrastructure is done in a manner that ensures service levels are met within the financial constraints faced by all municipalities. Asset Management will make the decision making much more scientific with investments made within approved plans. There are many requirements within the legislation that will be developed over several years. Once developed, it will be the key tool that is used in long-term planning for the municipality. The development of the Risk Framework is a key element within the Asset Management Plan.

**Prepared & Submitted by:**

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Donna DeFilippis, Director of Finance**Approved by:**

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Bev Hendry, CAO





# Infrastructure Risk Review



**West Lincoln**  
Your Future Naturally

October 2020

RESEARCH

CONSULTING

SOFTWARE

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## Introduction

The Township of West Lincoln has retained Public Sector Digest (PSD) to develop a Risk Assessment Framework for its infrastructure and assets.

Risk and criticality models and analysis are key elements of good asset management practices and programs. They are now recognized nationally and internationally as best practice. Through their use, an asset manager can determine which infrastructure is critical to the organization and can also rank and rate the level of business risk associated with all infrastructure stock. This can be achieved at the organizational level, the asset category level, the individual asset level, and the asset component level.

This becomes extremely useful when limited internal resources are available to address a significant number of capital and operating needs.

In addition, risk is a key measure in regard to the level of service being supplied to the community at large. Important questions need to be asked and quantified. For instance, how much risk is currently associated with the delivery of infrastructure services? And, what is being done to reduce or mitigate risks? A good risk model will quantify the first question and therefore initiate analysis and management processes to address the second.

## Risk Framework Summary

Risk management creates and protects value. It is part of decision making and an integral part of organizational processes. Risk management deals with uncertainty in a systematic, structured and timely manner using the best available information to reach the best possible decisions. Therefore, it is imperative that municipalities gather the best possible information in order to make the most informed decisions. The Risk Framework Report Card in this section illustrates the strength of the Township in these areas.

Developing a risk program involves many separate considerations. One of the core pillars to a wider risk program is to generate a comprehensive risk framework. Prior to undertaking this process with PSD, the Township had some incorporated risk analysis as part of its capital project prioritization process. The Township possesses some information and data to support such a framework. To assess probability of failure, the Township currently has a combination of both age-based condition, historical data, and has some replacement costs to calculate consequence of failure severity. Taken together, the Township receives an overall C grade. The details of the Township's risk management framework are found below.



## Scope

This project focused on developing a Risk Assessment Framework for the following asset types:

Detailed models:

- Roads
- Bridges & Culverts
- Water
- Wastewater
- Stormwater

High-level models:

- Facilities
- Parks
- Rolling Stock
- Equipment

The asset types were identified due to their overall value relative to the Township's entire asset portfolio, the level of detailed asset data available, and their criticality level.

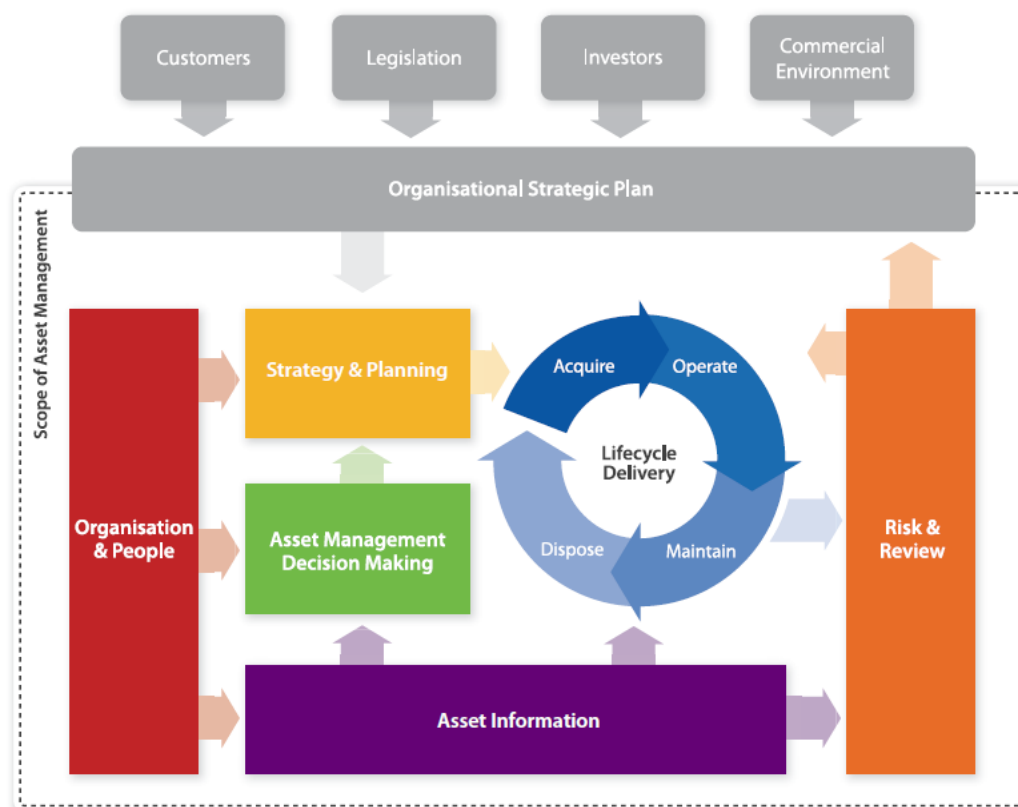
## Risk Management Fundamentals

A municipality's assets are often the leading edge of its exposure to external risk. As such, it is important that policies, processes, and procedures are put in place in order to manage and mitigate organizational risk exposure. Minimizing risk exposure and using a risk-based analysis to drive asset management decision-making and capital project prioritization helps to prevent consequential asset failure and major service disruption.

In addition, infrastructure renewal and replacement needs typically exceed available financial resources. To ensure that these limited funds are allocated optimally, it is important that project prioritization parameters are developed to ensure that the right projects come forward into short- and long-term capital planning.

A robust risk management framework allows one to determine the probability and consequence of failure at both the Asset Category and individual asset level and use that data to optimize capital funding decisions.

The graphic below identifies the inputs and outputs of risk management in the wider process of asset management. After asset data and information is evaluated through the organization's risk management framework, the outputs should inform both the approach to lifecycle management and feed into the Organizational Strategic Plan.



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## Regulatory Requirements

Asset management planning for municipal infrastructure (O. Reg. 588/17) requires that municipalities in Ontario begin to implement risk considerations as part of their asset management program.

The following are the key statements dictating the approach that municipalities should take when incorporating risk. The O. Reg. statement in its entirety is listed first, followed by PSD's interpretation.

## Asset management plans, current levels of service

### O. Reg. 588/17, s 5

5.(2)4. For each asset category, the lifecycle activities that would need to be undertaken to maintain the current levels of service for each of the 10 years following the year for which the current levels of service are determined and the costs of providing those activities based on an assessment of the following:

- i. The full lifecycle of the assets.
- ii. The options for which lifecycle activities could potentially be undertaken to maintain the current levels of service

**iii. The risks associated with the options referred to in subparagraph ii.**

**Interpretation:** Lifecycle activity options that are implemented to maintain current levels of service must be informed by associated risks. For example, if a Municipality is to temporarily shut down water services to fix a water main, staff must consider the risks to the environment, to businesses, to homeowners etc.

## Asset management plans, proposed levels of service

### O. Reg. 588/17, s 6

6.(1) Subject to subsection (2), by July 1, 2024, every asset management plan prepared under section 5 must include the following additional information:

- 2. An explanation of why the proposed levels of service under paragraph 1 are appropriate for the Township, based on an assessment of the following:

**i. The options for the proposed levels and the risks associated with those options to the long-term sustainability of the Township.**

**Interpretation:** When developing an asset management plan to meet the requirements for 2024, the document must include reference to risk considerations when outlining proposed levels of service.

6.(1)4. A lifecycle management and financial strategy that sets out the following information with respect to the assets in each asset category for the 10-year period referred to in paragraph 1:

i. An identification of the lifecycle activities that would need to be undertaken to provide the proposed levels of service described in paragraph 1, based on an assessment of the following:

A. The full lifecycle of the assets.

B. The options for which lifecycle activities could potentially be undertaken to achieve the proposed levels of service.

**C. The risks associated with the options referred to in sub-paragraph B.**

**Interpretation:** Proposed lifecycle activities will require risk considerations when identifying possible optional lifecycle management strategies.

6.(1)4.

iv. If, based on the funding projected to be available, the Township identifies a funding shortfall for the lifecycle activities identified in subparagraph i,

A. an identification of the lifecycle activities, whether set out in subparagraph i or otherwise, that the Township will undertake, and

**B. if applicable, an explanation of how the Township will manage the risks associated with not undertaking any of the lifecycle activities identified in subparagraph i.**

**Interpretation:** Municipalities need to identify possible risks in the event that there is a funding shortfall and identified lifecycle activities are not able to be undertaken.

The central emphasis in this regulation is that risk must be a consideration when both undertaking and failing to undertake lifecycle activities, as well as the provision of a level of service reflective of the community. More generally, O. Reg. 588/17 mandates that risk needs to be considered in asset management planning. It needs to be a lens to view asset management through; as each component of an asset management program is developed, risk needs to be factored into the decision-making process.

## Methodology

A risk assessment framework, when applied to asset management, should provide an asset risk rating to assist with the management of infrastructure. This requires the development of quantitative models that can leverage the asset data and information at the disposal of the Township.

A good risk model will:

- Assist with the prioritization of resources
- Ensure vital services are available
- Prioritize and streamline inspection and condition assessment programs
- Prioritize and optimize operations and maintenance programs
- Prioritize and optimize capital budget processes and program delivery
- Ensure that available money and resources are applied to the right asset at the right time

### Approach and Parameters

Integrating a risk management framework into your asset management program requires the translation of risk potential into a quantifiable format. This will allow you to compare and analyze individual assets across your entire asset portfolio.

Asset risk is typically defined using the following formula:

$$\text{Risk} = \text{Probability of Failure (POF)} \times \text{Consequence of Failure (COF)}$$

#### Probability of Failure (POF)







The probability of failure relates to the likelihood that an asset will fail at a given time. The current physical condition and service life remaining are two commonly used risk parameters in determining this likelihood.

The values or ranges used to determine an asset's POF are aligned with the following qualitative rating scale:

Probability of Failure
Rare
Unlikely
Possible
Likely
Almost Certain

### Consequence of Failure (COF)

The consequence of failure describes the overall effect that an asset's failure will have on an organization's asset management goals. Consequences of failure can range from non-eventful to impactful: a small diameter water main break in a subdivision may cause several rate payers to be without water service for a short time. However, a larger trunk water main may break outside a hospital, leading to significantly higher consequences. In this report, the COF parameters will aim to align with the Triple Bottom Line (economic, social, environmental) approach to risk management as well as other fields including operational, health and safety, and strategic.

	Economic	The monetary consequences of asset failure for the organization and its customers
	Social	The consequences of asset failure on the social dimensions of the community
	Environmental	The consequence of asset failure on an asset's surrounding environment
	Operational	The consequence of asset failure on the Township's day-to-day operations
	Health and Safety	The consequence of asset failure on the health and well-being of the community
	Strategic	The consequence of asset failure on strategic planning

The values or ranges used to determine an asset's consequence of failure are aligned with the following qualitative rating scale:

Consequence of Failure
Insignificant
Minor
Moderate
Major
Severe

## Risk Models: Core Infrastructure

The strength of a risk management framework depends on the reliability and availability of asset attribute data and the use of risk models designed to leverage that data. The integration of meaningful asset attribute data that represent the contributing factors to the probability and consequence of an asset's failure will provide increased confidence in capital project decision-making and support evidence-based budget deliberations. While more data does not necessarily mean better outcomes, the careful selection of risk parameters can enhance asset management decision-making.

This section outlines the parameters that are recommended by PSD to calculate both the Consequence of Failure and the Probability of Failure for core infrastructure asset classes outlined within the scope of the project. These parameters and their associated weightings were determined by Township staff leveraging current and/or potential attribute data available. Further collaboration with municipal staff will define customized risk framework for the Township's core infrastructure.

### Paved Roads

#### Probability of Failure

The following hierarchy identifies the recommended criteria to be used to calculate each asset's probability of failure, including recommended weightings.

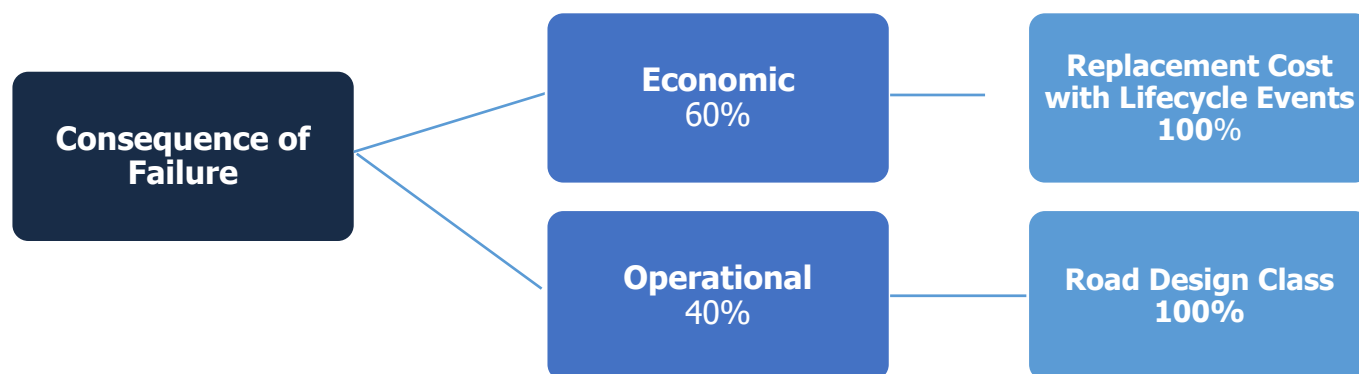


Condition assessment data from a 2019 Road Needs Study (RNS) performed by ARA has been used to determine the probability of failure for the Township's road network. Condition rating criteria has been defined using Pavement Condition Index (PCI) ratings as outlined below and takes into account annual daily traffic counts of the road. If an asset does not have an assessed condition value, then an age-based estimate of its current condition is used. Age-based estimates are calculated using the In-Service Date and Estimated Useful Life to determine the percentage of life consumed and then modeled based on an asset's expected rate of deterioration.

Condition	
PCI Range	Probability of Failure
80 - 100	Rare
60 - 80	Unlikely
40 - 60	Possible
20 - 40	Likely
0 - 20	Almost Certain

## Consequence of Failure

The following hierarchy identifies the recommended criteria and sub-criteria to be used to calculate each asset's consequence of failure, including all recommended weightings and sub-weightings.



### Economic

Sub-Criteria	Range	Consequence of Failure
Replacement Cost with Lifecycle Events	\$0 - \$25000	1 - Insignificant
	\$25000 - \$50000	2 – Minor
	\$50000 - \$100000	3 - Moderate
	\$100000 - \$150000	4 - Major
	Greater than \$150000	5 - Severe

### Operational

Sub-Criteria	Range	Consequence of Failure
Road Design Class	5,6	1 - Insignificant
	4	2 – Minor
	3	3 - Moderate
	2	4 - Major
	1	5 - Severe



## Bridges & Culverts

### Probability of Failure

The following hierarchy identifies the recommended criteria to be used to calculate each asset's probability of failure, including recommended weightings.

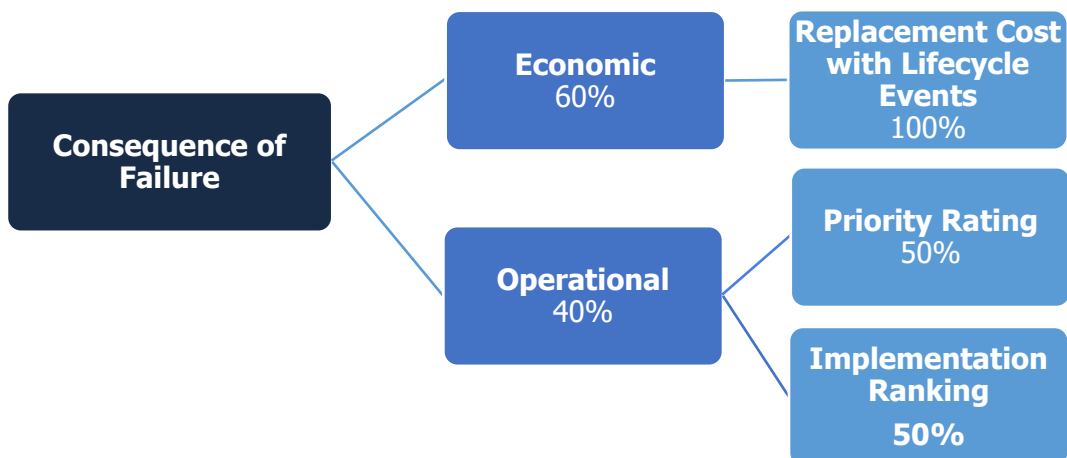


Assessed condition from the 2019 Ontario Structural Inspection Manual (OSIM) reports has been used to calculate the probability of failure. Condition rating criteria has been defined using industry bridge condition index (BCI) ratings as outlined below. If an asset does not have an assessed condition value, then an age-based estimate of its current condition is used. Age-based estimates are calculated using the In-Service Date and Estimated Useful Life to determine the percentage of life consumed and then modeled based on an asset's expected rate of deterioration.

Condition	
Bridge Condition Index (BCI) Range	Probability of Failure
80 - 100	Rare
60 - 80	Unlikely
40 - 60	Possible
20 - 40	Likely
0 - 20	Almost Certain

### Consequence of Failure

The following hierarchy identifies the recommended criteria and sub-criteria to be used to calculate each asset's consequence of failure, including all recommended weightings and sub-weightings.



### Economic

Sub-Criteria	Range	Consequence of Failure
Replacement Cost with Lifecycle Events	\$0 - \$100,000	1 - Insignificant
	\$100,000 - \$250,000	2 – Minor
	\$250,000 - \$750,000	3 - Moderate
	\$750,000 - \$1,000,000	4 - Major
	Greater than \$1,000,000	5 - Severe

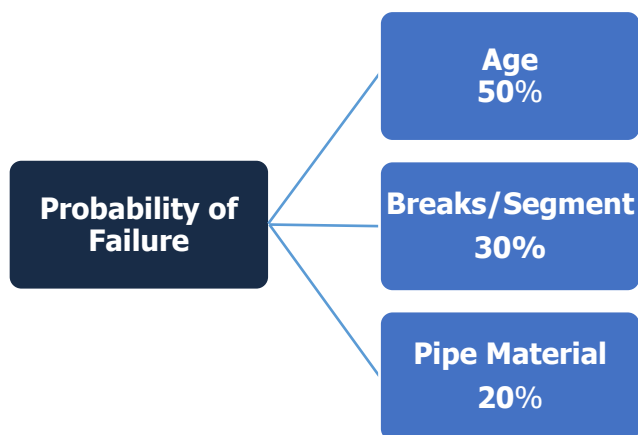
### Operational

Sub-Criteria	Range	Consequence of Failure
Priority Rating	10-20 Years	2 – Minor
	5-10 Years	3 - Moderate
	1-5 Years	4 - Major
	Immediate/Now	5 - Severe
Sub-Criteria	Range	Consequence of Failure
Implementation Ranking	Low	2 - Minor
	Medium	3 - Moderate
	High	4 - Major

## Water Mains

### Probability of Failure

The following hierarchy identifies the recommended criteria to be used to calculate each asset's probability of failure, including recommended weightings.



A combination of age, pipe material and the number of breaks per asset segment will be used as an indicator of probability of failure. Age-based estimates are calculated using the In-Service Date, Estimated Useful Life to determine the percentage of life consumed and then modeled based on an asset's expected rate of deterioration.

### Age

Condition Range	Probability of Failure
80 - 100	Rare
60 - 80	Unlikely
40 - 60	Possible
20 - 40	Likely
0 - 20	Almost Certain

### Breaks/Segment

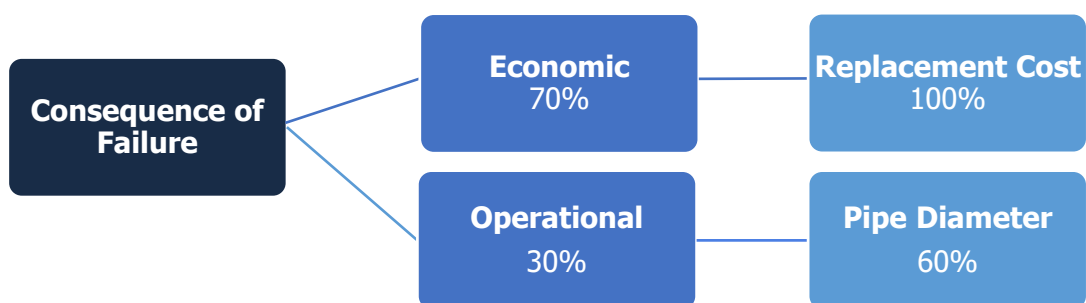
Condition Range	Probability of Failure
0-1	Rare
1-2	Unlikely
2-4	Possible
4-6	Likely
6+	Almost Certain

### Pipe Material

Range	Probability of Failure
PVC	Rare
Precast Concrete	Unlikely
Concrete	Possible
AC	Likely
Ductile Iron	Almost Certain

## Consequence of Failure

The following hierarchy identifies the criteria, and sub-criteria used to calculate each asset's consequence of failure, including all weightings and sub-weightings.



### Economic

Sub-Criteria	Range	Consequence of Failure
Replacement Cost (\$)	\$0 - \$10000	1 - Insignificant
	\$10000 - \$20000	2 - Minor
	\$20000 - \$50000	3 - Moderate
	\$50000 - \$100000	4 - Major
	Greater than \$100000	5 - Severe

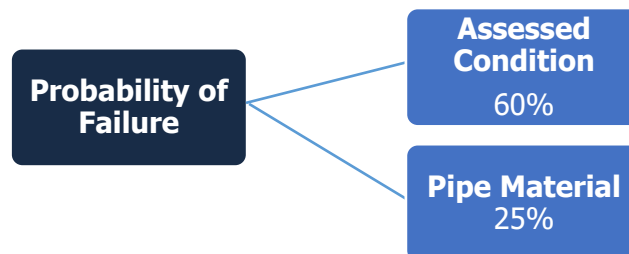
## Operational

Sub-Criteria	Range	Consequence of Failure
Pipe Diameter (mm)	0-100	1 - Insignificant
	100-150	2 - Minor
	150-250	3 - Moderate
	250-350	4 - Major
	Greater than 350	5 – Severe
Sub-Criteria	Range	Consequence of Failure
Breaks/Segment	0-2	1 - Insignificant
	2-4	2 - Minor
	4-6	3 - Moderate
	6-8	4 - Major
	8+	5 – Severe

## Sanitary Mains

### Probability of Failure

The following hierarchy identifies the recommended criteria to be used to calculate each asset's probability of failure, including recommended weightings.



The Township has recently performed CCTV inspections on its underground sanitary network. Where available, those condition inspection values will be utilized. Condition rating criteria has been defined using NASSCO condition rating criteria. However, assets with no assessed condition will use age-based condition and pipe material to determine the probability of failure for the Township's sewers. Age-based estimates are calculated using the In-Service Date and Estimated Useful Life to determine the percentage of life consumed and then modeled based on an asset's expected rate of deterioration.

### Pipe Material

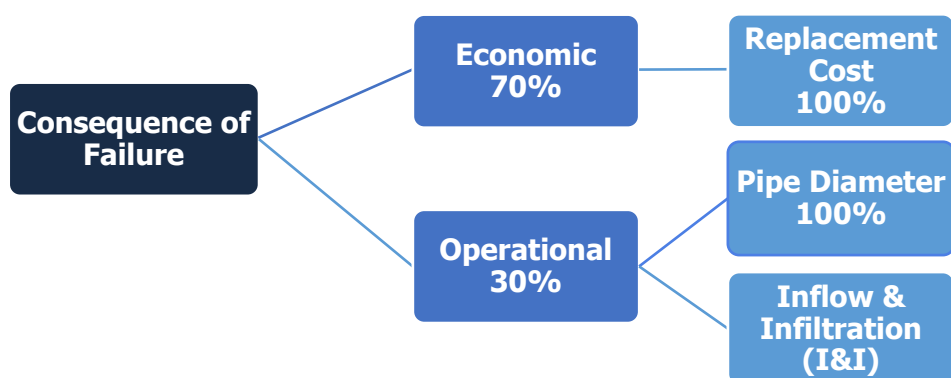
Range	Probability of Failure
PVC	Rare
Concrete	Possible
AC	Likely

### Condition

Condition Index (CI) Range	Probability of Failure
0-1	Rare
2-3	Unlikely
3-4	Possible
4-5	Likely
5	Almost Certain

### Consequence of Failure

The following hierarchy identifies the criteria, and sub-criteria used to calculate each asset's consequence of failure, including all weightings and sub-weightings.



### Economic

Sub-Criteria	Range	Consequence of Failure
Replacement Cost (\$)	\$0 - \$10,000	1 - Insignificant
	\$10,000 - \$20,000	2 - Minor
	\$20,000 - \$50,000	3 - Moderate
	\$50,000 - \$100,000	4 - Major
	Greater than \$100,000	5 - Severe

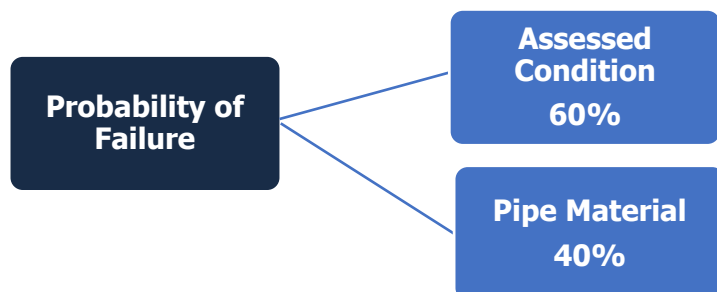
### Operational

Sub-Criteria	Range	Consequence of Failure
Pipe Diameter (mm)	Less Than 100	1 - Insignificant
	100-200	2 - Minor
	200-250	3 - Moderate
	250-300	4 - Major
	Greater Than 300	5 - Severe
Sub-Criteria	Range	Consequence of Failure
Inflow and Infiltration (I&I)	Low	2 - Minor
	Medium	3 - Moderate
	High	4 - Major

## Storm Mains

### Probability of Failure

The following hierarchy identifies the recommended criteria to be used to calculate each asset's probability of failure, including recommended weightings.



If there are no CCTV inspections, the risk model will utilize age-based condition instead of the assessed condition ratings from the CCTV inspections. Age-based estimates are calculated using the In-Service Date and Estimated Useful Life to determine the percentage of life consumed and then modeled based on an asset's expected rate of deterioration.

#### Condition

Condition Index (CI) Range	Probability of Failure
0-1	1- Rare
2-3	2- Unlikely
3-4	3- Possible
4-5	4- Likely
5	5- Almost Certain

#### Pipe Material

Range	Probability of Failure
PVC	Rare
Concrete	Possible
AC	Likely

## Consequence of Failure

The following hierarchy identifies the criteria, and sub-criteria used to calculate each asset's consequence of failure, including all weightings and sub-weightings.



### Economic

Sub-Criteria	Range	Consequence of Failure
Replacement Cost (\$)	\$0 - \$10,000	1 - Insignificant
	\$10,000 - \$20,000	2 - Minor
	\$20,000 - \$50,000	3 - Moderate
	\$50,000 - \$100,000	4 - Major
	Greater than \$100,000	5 - Severe

### Operational

Sub-Criteria	Range	Consequence of Failure
Pipe Diameter	Less than 250	1 - Insignificant
	250-300	2 - Minor
	300-450	3 - Moderate
	450-675	4 - Major
	Greater than 675	5 - Severe

## Risk Models: Additional Classes

This section broadly outlines the parameters that are recommended to calculate both the Consequence of Failure and the Probability of Failure for the additional asset classes outlined within the scope of the project. These parameters and their associated weightings were determined by PSD's project consultant by leveraging current and/or potential attribute data available.

### Facilities

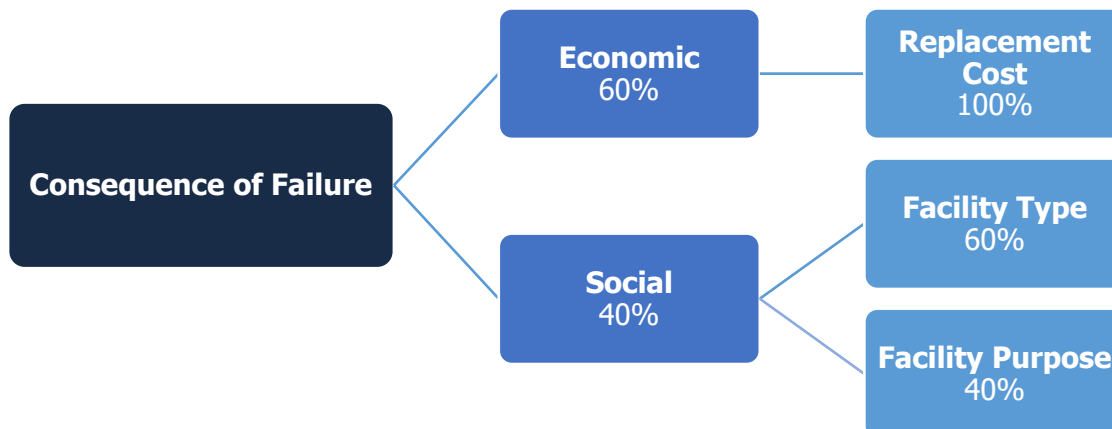
#### Probability of Failure

Age-based condition will be used to determine the probability of failure for the Township's facilities. Assessed condition values will be applied where available. Age-based estimates are calculated using the In-Service Date and Estimated Useful Life to determine the percentage of life consumed and then modeled based on an asset's expected rate of deterioration. Condition rating criteria has been defined using the software default ratings as outlined below.

Condition	
Probability of Failure	Range
Rare	Greater than 80
Unlikely	60 - 80
Possible	40 - 60
Likely	20 - 40
Almost Certain	0 - 20

#### Consequence of Failure

The following hierarchy identifies the criteria, and sub-criteria used to calculate each asset's consequence of failure, including all weightings and sub-weightings.





### Economic

Sub-Criteria	Range	Consequence of Failure
Replacement Cost	\$0 - \$100,000	1 - Insignificant
	\$100,000 - \$500,000	2 - Minor
	\$500,000 - \$2,000,000	3 - Moderate
	\$2,000,000 - \$10,000,000	4 - Major
	Greater than \$10,000,000	5 - Severe

### Social

Sub-Criteria	Value	Consequence of Failure
Facility Type	Storage	1 - Insignificant
	Barns	1 - Insignificant
	Library	3 - Moderate
	Day Care	3 - Moderate
	Municipal Office/Admin of Justice	3 - Moderate
	Community Halls	3 - Moderate
	Recreation Arenas	4 - Major
	Public Works/Operations	4 - Major
	Fire Station/Bulk Stations	5 - Severe
Sub-Criteria	Value	Consequence of Failure
Facility Purpose	Educational	2 - Minor
	Quality of Life	3 - Moderate
	Security	4 - Major
	Public Health	5 - Severe

## Parks

### Probability of Failure

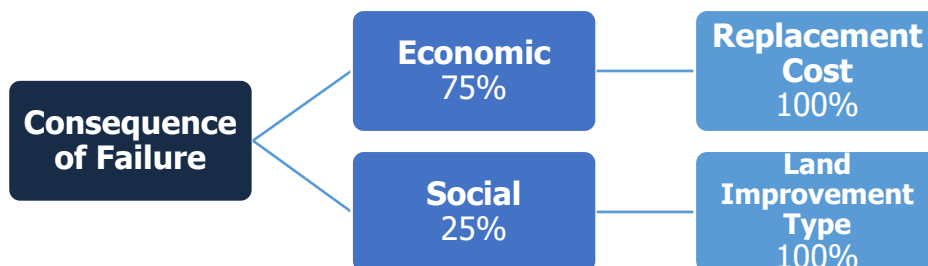
Age-based condition will be used to determine the probability of failure for the Township's parks unless assessed condition values are available to be used. Age-based estimates are calculated using the In-Service Date and Estimated Useful Life to determine the percentage of life consumed and then modeled based on an asset's expected rate of deterioration. Condition rating criteria has been defined using the software default ratings as outlined below.

#### Condition

Probability of Failure	Range
Rare	Greater than 80
Unlikely	60 - 80
Possible	40 - 60
Likely	20 - 40
Almost Certain	0 - 20

## Consequence of Failure

The following hierarchy identifies the criteria, and sub-criteria used to calculate each asset's consequence of failure, including all weightings and sub-weightings.



### Economic

Sub-Criteria	Range	Consequence of Failure
Replacement Cost	\$0 - \$5,000	1 - Insignificant
	\$5,000 - \$10,000	2 - Minor
	\$10,000 - \$30,000	3 - Moderate
	\$30,000 - \$100,000	4 - Major
	Greater than \$100,000	5 - Severe

### Social

Sub-Criteria	Value	Consequence of Failure
Land Improvement Type	Stormwater ponds	1 - Insignificant
	Landscaping	1 - Insignificant
	Trails, Pathways	2 - Minor
	Parking Lots	2 - Minor
	Playgrounds	3 - Moderate
	Sidewalks, Signage	3 - Moderate
	Sports Courts	4 - Major

## Rolling Stock

### Probability of Failure

Age-based condition will be used to determine the probability of failure for the Township's Rolling Stock. Assessed condition values will be applied where available. Age-based estimates are calculated using the In-Service Date and Estimated Useful Life to determine the percentage of life consumed and then modeled based on an asset's expected rate of deterioration. Condition rating criteria has been defined using the software default ratings as outlined below.

### Condition

Probability of Failure	Range
Rare	80 - 100
Unlikely	60 - 80
Possible	40 - 60
Likely	20 - 40
Almost Certain	0 - 20

### Consequence of Failure

The following hierarchy identifies the criteria, and sub-criteria used to calculate each asset's consequence of failure, including all weightings and sub-weightings.



#### Operational

Sub-Criteria	Range	Consequence of Failure
Replacement Cost \$/unit	\$0 - \$25,000	1 - Insignificant
	\$25,000 - \$75,000	2 - Minor
	\$75,000 - \$125,000	3 - Moderate
	\$125,000 - \$200,000	4 - Major
	Greater than \$200,000	5 - Severe

#### Operational

Sub-Criteria	Value	Consequence of Failure
Rolling Stock Type	Off Road (ATV), Small Equipment	1 – Insignificant
	Light Duty Vehicle	1 – Insignificant
	Medium Duty Vehicle	2 - Minor
	Heavy Duty Vehicle	4 – Major
	Heavy Machinery	5 - Severe

Sub-Criteria	Value	Consequence of Failure
Rolling Stock Purpose	Trailers	1 – Insignificant
	Mowers, Tractors	2 - Minor
	Pickup Trucks	2 – Minor
	Tandem Trucks, Graders, Ice Resurfacers	4 – Major
	Fire Trucks	5 - Severe

## Machinery & Equipment

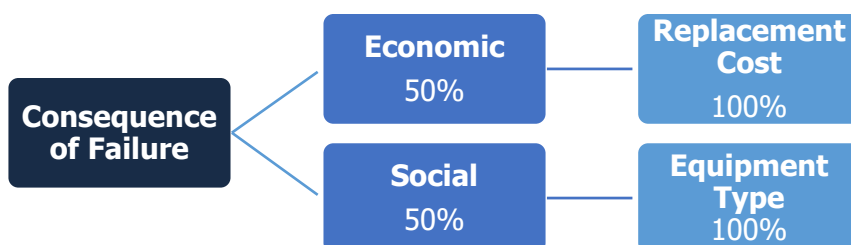
### Probability of Failure

Age-based condition will be used to determine the probability of failure for the Township's equipment. Assessed condition values will be applied where available. Age-based estimates are calculated using the In-Service Date and Estimated Useful Life to determine the percentage of life consumed and then modeled based on an asset's expected rate of deterioration. Condition rating criteria has been defined using the software default ratings as outlined below.

Condition	
Probability of Failure	Range
Rare	80 - 100
Unlikely	60 - 80
Possible	40 - 60
Likely	20 - 40
Almost Certain	0 - 20

### Consequence of Failure

The following hierarchy identifies the criteria, and sub-criteria used to calculate each asset's consequence of failure, including all weightings and sub-weightings.



#### Economic

Sub-Criteria	Range	Consequence of Failure
Replacement Cost (\$/unit)	\$0 - \$5,000	1 - Insignificant
	\$5,000 - \$10,000	2 - Minor
	\$10,000 - \$25,000	3 - Moderate
	\$25,000 - \$50,000	4 - Major
	Greater than \$50,000	5 - Severe

#### Social

Sub-Criteria	Value	Consequence of Failure
Equipment Type	Administration & Finance	2 - Minor
	Maintenance, Recreation	3 - Moderate
	Library (Books)	4 - Major
	IT (Electronics)	5 - Severe
	Operations, Fire (Bunker Gear, SCBAs)	5 - Severe

## Recommendations

In determining probability of failure, for example, the Township should eventually seek to schedule regular condition assessments on all core infrastructure assets. In the nearer term, however, it may be more feasible to begin conducting some assessment protocols on all assets. Similarly, staff should move towards considering a wide number of indicators to determine a more accurate sense of risk consequence. With that said, it may be more feasible to begin introducing separate indicators individually rather than all at once.

Generating a risk matrix and framework is only part of a wider and more comprehensive risk management program, as identified below. Most of the information found in the following table is a rating scale taken from the Institute of Public Works Engineering Australasia (IPWEA) and their corresponding International Infrastructure Management Manual (IIMM).

Level of Development	Action	Estimated Impact	Estimated Effort
Minimum	Educate staff involved in maintenance/renewal decisions on critical assets.	High	Low
Core	Generate risk framework.	High	Medium
	Identify risk categories, risk events, high risks, and critical assets.	Medium	Medium
	Document risk management strategies for critical assets and high risks.	High	Medium
Intermediate	Develop systematic risk analysis to assist key decision making.	High	High
	Develop risk register and monitor and manage consistently across the organization.	High	High
	Align strategic, tactical, and operational risks and risk registers.	High	Medium
Advanced	Generate formal risk management policy.	Medium	Medium
	Quantify risk and evaluate risk mitigation options.	Medium	Medium
	Integrate risk into all aspects of decision making.	High	High
	Incorporate the effects of climate change into infrastructure risk framework	High	Medium

## LEGAL NOTICE

This RISK FRAMEWORK REVIEW has been prepared by The Public Sector Digest Inc. ("PSD") in accordance with instructions received from the Township of West Lincoln (the "Client") and for the sole use of the Client. The content of (and recommendations) this document reflects the best judgement of PSD personnel based on the information made available to PSD by the Client. Unauthorized use of this document for any other purpose, or by any third party, without the express written consent of PSD shall be at such third party's sole risk without liability to PSD.

**DATE:** November 16, 2020  
**REPORT NO:** C-08-2020  
**SUBJECT:** **Corporate Flag Policy**  
**CONTACT:** Jessica Dyson, Deputy Clerk  
Joanne Scime, Clerk

**OVERVIEW:**

- The purpose of this report is to seek Council's approval for a Corporate Flag Policy for the Township of West Lincoln.
- A Corporate Flag Policy has been developed to create guidelines that are both consistent and appropriate for flag raising requests and for flying flags at half-mast at all municipal facilities within the Township of West Lincoln that have a flag pole(s).
- This report will also seek approval of a Community Flag Pole location and provide delegated authority to the Clerk under specific guidelines as outlined in the report and policy.

**RECOMMENDATION:**

1. THAT, the report RFD-C-08-2020, dated November 16, 2020, regarding "Corporate Flag Policy", be received; and,
2. THAT, Council approve the proposed Corporate Flag Policy and the Community Flag Raising Request form, attached as Schedule "A" and "B"; and,
3. THAT, Council delegate authority for approving or denying request for Community Flag Raising requests that have been previously approved or denied by Council within the last 5 years of the request date to the Clerk; and,
4. THAT, the Township Flag Policy adopted in 1987 and the Policy for Lowering Flag to Half Mast approved in 2004 be and are hereby repealed.

**ALIGNMENT TO STRATEGIC PLAN:**

**Theme #3**

This report ties to the Corporate Strategic Plan with this policy highlighting Theme #3 Strategic, Responsible Growth as well as our Township values of respect, leadership and teamwork. Inclusion and diversity within the Township will bring the community together by providing community organizations with an opportunity to request flag raising that enhance awareness of special occasions and activities.

**BACKGROUND:**

In 1987, the Township of West Lincoln adopted a policy with respect to the Township of West Lincoln Flag. This policy addressed the flying of the Township Flag, specifically where the Township Flag can be flown or displayed by individuals or organizations and its

treatment and how it is to be disposed of when it becomes worn, noticeably faded or otherwise unfit for service. Additionally, this policy addressed vandalism and/or theft of the Township Flag and provided that anyone found damaging a Township Flag or removing it from a pole or place where it has been affixed by or under the authority of the municipality shall be subject to prosecution in the Courts. Much of the language contained in the Township Flag Policy can be found in Section 2 of the proposed new Corporate Flag Policy, attached as Schedule “A” to this report.

Additionally, in 2004 the Township adopted a policy with respect to Lowering a Flag to Half Mast, which is done to commemorate special dates such as Remembrance Day or as a measure of respect and condolence when a high profile official passes away. Again, much of the content from this policy has been provided in Section 3 of the proposed new flag policy; however, neither of the former policies addressed procedures for requests that are received to fly community flags.

The Township has seen an increase in the number of requests to fly community flags as it seen as a way to enhance public awareness of activities such as fundraising drives, multi-cultural events and national or independence days. To date, the Township does not have a policy and/or procedures to address requests received to fly community flags and to ensure that all flags that are flown in a consistent and appropriate manner at all Township facilities and properties that have a flag pole.

In June 2020, an issue arose with the flying of the Pride Flag whereby there was a miscommunication with respect to the procedure for making a request to fly the Pride Flag. As a result of this issue, Council adopted the following resolution at the June 16, 2020 Special Council Meeting:

That, all flag raising requests, outside of this motion, be suspended until such time as Township staff have prepared a flag raising policy and reported back at a future Council or Committee meeting.

Flag poles are currently located at the following municipal locations:

- Township Municipal Building
- West Lincoln Community Centre
- West Lincoln Fire Hall – Station 1 and Station 2
- Caistorville Library
- Smithville Parkette

### **CURRENT SITUATION:**

As directed by Council in June 2020, staff researched policies from various municipalities across the Niagara Region as well as other Regions in the area to determine best practices to be included in a new Corporate Flag Policy.

The purpose of the new Corporate Flag Policy will outline the requirements for raising community flags at all Township facilities, as well as guidelines for flying flags at half-mast and ensuring all flags are flown and displayed in a consistent and appropriate manner.

### **Lowering Flag to Half-Mast**

The Township of West Lincoln lowers flags to half-mast as a symbol of mourning or



commemoration. Different circumstances may apply that determine what flag(s) will be flown at half-mast within the Township of West Lincoln as outlined in the Corporate Flag Policy attached as Schedule A to this report, specifically Section 3. The proposed policy differentiates between lowering a specific flag(s) for certain occasions, specifically as it may relate to a world, national, or local instance.

### **Community Flag Raising Requests**

Currently, community flags are raised on the flag pole located at the Township of West Lincoln Administration Building. Upon approval of the policy, requests to have a community flag flown with the Township will be made through the Clerks Department and presented to Council for approval. A copy of the Community Flag Raising Request form is attached as Schedule "B" to this report and will be posted on the Township's website for community groups to complete when requesting the municipality to raise their respective community flag.

To reduce the need to go to Council each year with the same request, staff are recommending that the Township Clerk be delegated authority to permit a community flag to be raised that received previous approval of Council within five (5) years of the initial request, provided that the new request is consistent with the former request and the Corporate Flag Policy.

Additionally, staff is recommending that a Community Flagpole be designated that will be used for groups and organizations that request and receive approval for their flag to be flown in the Township of West Lincoln. In the past, the flagpole at the Township Municipal Office has been used for flying community flags which has in many cases included a brief ceremony and media exposure; however, because the West Lincoln Community Centre is centralized and hosts many events and social gatherings, staff are recommending that the flag pole at the West Lincoln Community Centre (WLCC) be designated as the location for community flag raisings. The WLCC attracts a number of people due to the different services that are offered at this facility including but not limited to the Smithville Library, the skate park, splash pad, ball diamond, playground, walking track, fitness programs, community events, room rental opportunities, park amenities, as well as playing hockey and other recreational activities (gymnasium). With this high level of traffic, it seems most fitting to use the WLCC as the location for the Community Flag raising in order to provide awareness to the community and beyond.

In addition to having the community flagpole at the WLCC, in the event that half-masting should occur due to circumstances outlined within the Corporate Flag Policy, the half-masting will not interfere with the community flag as there is a Township flag at the Township Municipal Building.

There are three (3) flags that are flown at the WLCC being the Canadian Flag, Provincial Flag and the Township Flag. When a community flag raising request is approved, their flag will take place of the Township Flag for the allotted duration.

### **Delegation of Authority**

The proposed delegation of authority to the Clerk will allow for requests for community flag raising to be processed in a timely manner in the event a request has been previously



approved by Council within five (5) years of the current request, provided that the new request is consistent with the Corporate Flag Policy. In these cases, the Clerk or a member of her staff will send a communication to Members of Council advising of the request and any pertinent details including ceremonies, etc.

### **Poll from Council**

During the months of July, August as well as December, Standing Committee and/or Council meetings are reduced with one or two meetings being held during these months. In the event that a request is submitted and a community flag raising event is to occur before a scheduled Standing Committee and/or Council meeting, provided that the request is consistent with the proposed Corporate Flag Policy and to address time constraints, the Clerk may ask Members of Council to vote via email or by telephone for approval of the request, providing Council Members a 24-hour timeframe to respond with the majority of responses ruling either in favour or against the flag raising request.

### **FINANCIAL IMPLICATIONS:**

There are no direct financial implications with the Corporate Flag Policy.

### **INTER-DEPARTMENTAL COMMENTS:**

This report has been reviewed by Senior Managers and has been subsequently supported.

### **CONCLUSION:**

Staff recommends that Council approve the proposed Corporate Flag Policy attached as Schedule A to this report, approve West Lincoln Community Centre as the Community Flag Pole location, as well as provide delegated authority to the Clerk to approve any flag requests that received previous approval of Council within the last 5 years of the initial request and that the Township Flag Policy adopted in 1987 and the Policy for Lowering Flag to Half Mast approved in 2004 be repealed as the majority of the contents of these policies have been incorporated into the new Corporate Flag Policy.

**Prepared by:**



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**Jessica Dyson, Deputy Clerk**

**Prepared & Submitted by:**



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**Joanne Scime, Clerk**

**Approved by:**



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**Bev Hendry, CAO**

**TITLE:** Corporate Flag Policy  
**POLICY NO.:** POL-ADMIN-04-2020  
**APPROVAL DATE:** November 23, 2020  
**EFFECTIVE DATE:** November 23, 2020

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### **Purpose**

The purpose of this policy is to outline the requirements for raising flags at all Township facilities, as well as guidelines for flying flags at half-mast and ensuring all flags are flown and displayed in a consistent and appropriate manner.

### **Definitions**

“Flag” for the purpose of this policy, flags will be referred to the National Flag of Canada (Canadian Flag), Flag of the Province of Ontario (Provincial Flag), the Township of West Lincoln Flag (Township Flag), and any other flag permitted to be flown on a Township of West Lincoln municipal flagpole.

“Half-mast” refers to the position of a flag, approximately halfway up the post or pole. The position when flying at half-mast will depend on the flags size, the length of the mast and its location. Flags are flown at the half-mast position as a sign of mourning.

“Order of Precedence” refers to the positioning of flags in priority or importance, order or rank.

### **Application and Scope**

This policy applies to all municipal owned facilities operated by the Township of West Lincoln where flags are displayed, Members of Council, Township Staff, as well as all members of the Public.

### **Policy**

#### **1. Displaying Flag(s)**

- 1.1. All flags will be flown or displayed in accordance with the dignity and general [rules of etiquette](#) for flying and displaying the National Flag of Canada (Canadian Flag).
- 1.2. The National Flag of Canada, the Provincial Flag of Ontario (Provincial Flag) and the Township of West Lincoln Flag (Township Flag) shall be flown on flagpoles owned and maintained by the Township of West Lincoln. Other organizations within the Township of West Lincoln and the Niagara Region may request a flag to be flown when a request is sent to the Clerks Department.

- 1.3. Where the Township flag is flown or displayed with the Canadian Flag, the Canadian Flag will take the place of honour, which is to the left of the observer of the flag and the Township Flag on the right.
- 1.4. Where the Township of West Lincoln Flag is flown or displayed with the Canadian and Provincial Flag, the Canadian Flag will occupy the centre position to the observer of the flag, the Provincial Flag to the left and the Township Flag to the right.
- 1.5. Flags shall be flown or displayed in good condition. Any soiled, frayed or torn flags must be replaced immediately.

## **2. Flying the Township Flag**

- 2.1 Where the Township Flag is flown or displayed by individuals or organizations, the flag should be treated with dignity and respect and flown or displayed properly.
- 2.2 The Township Flag may be displayed flat or flown on a staff. If flat, it may be hung horizontally or vertically. If it hangs vertically against a wall, the flag should be placed so that the upper part of the Township Crest is to the left and the lower part of the Crest is to the right as seen by observers.
- 2.3 The Township Flag may be flown or displayed in a church, auditorium, or other meeting place. The Township Flag should not be used to cover a speaker's table or be draped in front of the platform; nor should it be allowed to touch the floor. If displayed flat against the wall at the back of a platform, the flag should be above and behind the speaker in a location as determined under general rules for flying and displaying the Canadian Flag, Provincial and/or other flags in Canada.
- 2.4 When used on the occasion of unveiling a monument, tablet, picture, etc., the flag should be properly draped and prevented from falling to the ground or floor.
- 2.6 The Township Flag should not be used for commercial advertising purposes. It is appropriate to display it to identify Township exhibits at fairs. Its use in such cases, as in all others, should reflect respect for the Township Flag.
- 2.7 When a Township Flag becomes worn, noticeably faded or otherwise unfit for service, it should be disposed of privately by burning.
- 2.8 The Township Flag shall not be used or worn as clothing.
- 2.9 For ceremonial presentations, it is suggested that the Township Flag may be presented to the local Member of Parliament, Member of Provincial

Parliament and/or Regional Chair or a member of their staff on a formal request basis.

### **3. Flags at Half-Mast**

3.1. As a symbol of mourning or commemoration, the Township of West Lincoln shall lower all flags to half-mast at all Township Flag locations including but not limited to the Township Municipal Building, the West Lincoln Community Centre, the West Lincoln Fire Halls (Station 1 and 2), Caistorville Library and the Smithville Parkette for the following occasions:

- On the death of The Sovereign or member of the Royal Family related in the first degree to the Sovereign (spouse, son/daughter, mother/father, brother/sister).
- On the death of current and former Governor General of Canada, Lieutenant Governor of Ontario, Prime Minister of Canada and Ontario Provincial Premier.
- On the death of an elected representative of the Federal or Provincial, governments.
- Under specific circumstances as determined by the Mayor or Chief Administrative Officer.

3.2. As a symbol of mourning or commemoration, the Township of West Lincoln shall only lower the Township Flag at all locations where a Township Flag is being flown, where a Township flag is not flown and where only a Canadian flag is flown, shall lower the Canadian Flag for the following occasions:

- On the death of a current elected representative on the Region of Niagara Council or a local municipal Council in Niagara Region.
- On the death of current or former Mayor and Member of Township Council.
- On the death of current or retired Township employee.
- Line of duty death – Niagara Regional Police Officer.
- Line of duty death – Niagara Area Municipal Firefighter.
- Under specific circumstances as determined by the Mayor or Chief Administrative Officer.

3.3. When raising and lowering of all flags, the Canadian Flag shall be raised first and lowered last, unless the number of flags permits them to be raised and lowered simultaneously. The Canadian Flag will remain slightly higher than the Provincial Flag and the Township Flag.

- 3.4. Flags will be flown at half-mast from the time the Township receives the notification of death until the end of the day of the funeral/memorial service, or as determined by the Clerk.
- 3.5. Flags flown at municipally owned facilities will be lowered to a half-mast position on the following days:
  - Workers Day of Mourning – April 28<sup>th</sup>
  - Remembrance Day – November 11<sup>th</sup>

#### **4. Community Flag Raisings**

- 4.1 The flagpole located at West Lincoln Community Centre will be used as the location to raise community flags.
- 4.2 When a community flag raising request is approved by Council, the community flag will take the place of the Township Flag for the allotted duration.
- 4.3 The Clerk shall be given delegation of authority for community flag raising requests that received previous approval of Council within five (5) years of the current request, provided that the new request is consistent with the former request and the Corporate Flag policy.
- 4.4 Requests will not be approved for:
  - Political parties or organizations.
  - Religious organizations, commercial entities or in celebration of corporate events.
  - Intent that is contrary to the Township of West Lincoln policies and/or by-laws.
  - Organizations requesting flag raisings that espouse hatred, violence or racism.
  - Organizations that have already flown a courtesy flag during the same calendar year.
- 4.5 Community groups and organizations located within the Township of West Lincoln or the Niagara Region who wish to have their flag flown in the Township of West Lincoln are required to submit a flag raising request in writing to Council through the Township's Clerks Department using one of the following methods:

1. Complete the Flag Raising Request form online
    - Fill out all required fields of the flag raising request form.
    - Once completed, the request is to be submitted to the Clerks Department where it will be forwarded on to Council for approval.
  2. Submit your request to the Township's Clerks Department on your organization letterhead including the following information:
    - Organization name, address, contact, title, phone number and email address
    - Proposed date and time of flag raising ceremony (if requested) and names of attendee(s)
    - Purpose of flag raising
    - Name of flag to be raised
    - Photo of flag to be raised
- 4.6 Requests will be confirmed on a first come first served basis. A flag raising request should be submitted 4 weeks in advance of your required date.
- 4.7 In the event that a request for a community flag raising is not submitted in a timely manner and/or during the months of July, August and/or December and/or during any other months that there may be reduction in the number of Committee and/or Council Meetings, the Clerk shall canvas all Members of Council to vote either by email or by telephone if they support or deny the request. A majority of Council Members who respond not later than 24 hours from the date and time of the email or telephone call will determine if the request is approved or denied.
- 4.8 Organizations with approved flag raising requests are required to provide a flag and other information pertaining to their flag raising in advance of the flag raising event.
- 4.9 The Township reserves the right to cancel a flag raising in the case of an unforeseen circumstance.
- 4.10 Flags may be flown for a maximum of one week or at the discretion of Council or the Clerk's Office.

#### **Related Documents**

- Community Flag Raising Request Form

#### **References**

- [Government of Canada – Rules for Flying the National Flag of Canada](#)
- [Government of Canada – Position of honour of the National Flag of Canada](#)

## Schedule B Community Flag Raising Request Form

[Living Here](#)[Recreation and Leisure](#)[Build and Invest](#)[Township Office](#)[I'D LIKE TO...](#)

### Community Flag Raising Request Form

To recognize and celebrate an inclusive West Lincoln, the Township of West Lincoln offers the temporary opportunity to raise community flags on the designated Community Flag Pole located at the West Lincoln Community Centre enhancing awareness of causes, special occasions, and activities. Approval is at Council's discretion as outlined in the Township's Corporate Flag Policy.

The Township will fly the flags of:

- Other sovereign nations
- Non-profit organizations
- Other local organizations

Requests will be confirmed on a first come first served basis.

Organizations are required to provide their own flag & other information pertaining to their flag raising program in advance of the flag raising.

Requests will not be approved for:

- Political parties or organizations
- Commercial entities or in celebration of corporate events
- Religious organizations or in celebration of religious events
- Groups, organizations, or events that promote beliefs contrary to any other Township policy or pose a reputational risk to the Township
- Organizations that support hatred, violence or racism, or contradict the Ontario Human Rights Code

To request a flag raising with the Township of West Lincoln please complete the form below.

#### Recreation and Leisure

[Annual Community Events](#) +[Community Groups and Clubs](#) +[Cycling](#)[Day Camps](#)[Drop-in Program Information  
and Calendar](#)[Event Calendar](#)[Facilities and Rentals](#) +[Fitness Programs](#)[General Interest and Hobby  
Programs](#)[Library](#)

## C-08-2020 – Corporate Flag Policy – Schedule B Community Flag Raising Request Form

**Name of Organization \***

**Purpose for Flag Raising \***

Older Adult Programs

Outdoor Activities



Parks and Trails

Recreation and Municipal Guide

Register for a Program

Skating and Shinny

### Contact Information

**Title \***

Contact title with the organization (i.e., President, Chair, Committee Member)

**First Name \***

**Last Name \***

**Phone Number \***

(xxx) xxx-xxxx

**Email Address \***

**Will someone be attending the ceremony to represent the organization? \***

☐ Yes

☐ No

**Preferred Date \***

**Preferred Time \***

Submit



**DATE:** November 16, 2020

**REPORT NO:** C-09-2020

**SUBJECT:** Options relating to filling the Vacancy of the Office for One (1) Councillor Position for Ward 2

**CONTACT:** Joanne Scime, Clerk

**OVERVIEW:**

This report will provide information to Members of Council regarding options for filling the vacancy of the Office for the Councillor position for Ward 2 as a result of the recent resignation of Councillor Christopher Coady.

**RECOMMENDATION:**

- (1) That, Report No. RFD-C-09-2020, dated November 16, 2020, regarding the “Options relating to filling the Vacancy of the Office for One (1) Councillor Position for Ward 3”, be received; and,
- (2) That, the Clerk be given direction that the vacancy of the Office for One (1) Councillor Position for Ward 2 for the remainder of the 2018-2022 term of Council be filled through Option # \_\_\_\_\_, as detailed herein.

**ALIGNMENT TO STRATEGIC PLAN:**

**Mission:**

The Township of West Lincoln provides responsive customer services and quality planning, infrastructure, programs and services that reflect the needs of the community we serve.

**Service:**

We take pride in providing responsive, friendly customer experiences and continuously improving our interactions with the public.

**Respect:**

We believe in the role of every resident, business, employee and Member of Council in making West Lincoln a great community.

**BACKGROUND:**

Councillor Christopher Coady provided written notice to the Clerk on Tuesday, October 13, 2020 of his resignation as Councillor for Ward 2 in the Township of West Lincoln.

Subsequently, at the next meeting of Council on Monday, October 26, 2020, Council adopted the following resolution:

1. That, the resignation received from Councillor Christopher Coady, dated October 13, 2020, be and is hereby accepted with regret; and,
2. That, the Office for one (1) Councillor position, for Ward 2 (Gainsborough) in the Township of West Lincoln, be and is hereby declared vacant in accordance with the "Vacancies" provisions of the Municipal Act.

**CURRENT SITUATION:**

Section 259(1) of The Municipal Act, 2001, S.O. 2001, c.25 (The Act) addresses the issue of Vacant Seats. The section specifically states that the office of a member of Council of a municipality becomes vacant if the member:

- (a) becomes disqualified from holding the office of a member of Council under section 256, 257 or 258;
- (b) fails to make the declaration of office before the deadline in section 232;
- (c) is absent from the meetings of Council for three successive months without being authorized to do so by a resolution of council;
- (d) resigns from his or her office and the resignation is effective under section 260;**
- (e) is appointed or elected to fill any vacancy in any other office on the same Council;
- (f) has his or her office declared vacant in any judicial proceeding;
- (g) forfeits his or her office under this or any other Act; or
- (h) dies, whether before or after accepting office and making the prescribed declarations. 2001, c. 25, s. 259 (1).

The Municipal Act stipulates that if the office of a member of municipal Council becomes vacant (Section 260(1)), the municipality must pass a motion at its next meeting to declare the seat to be vacant (Section 263(1)).

As noted above, the Office for one (1) Councillor position for Ward 2 in the Township of West Lincoln was declared vacant on October 26, 2020.

The Municipal Act further states in Section 263(5) that Council has no more than 60 days (by December 25th, 2020) to select one of following two options to fill the vacancy (Section 263(1)):

- (a) fill the vacancy by appointing a person who has consented to accept the office if appointed; or
- (b) require a by-election to be held to fill the vacancy in accordance with the Municipal Elections Act, 1996. 2001, c. 25, s. 263 (1).

In order to be eligible and qualify to hold office as a member of a Council of a local municipality, a person must be:

- Entitled to be an elector in the local municipality under section 17 of the Municipal Elections Act, 1996; and,
- Not disqualified by this or any other Act from holding office; and,
- Resides in the local municipality or is the owner or tenant of land within the municipality or be the spouse of such owner or tenant;
- A Canadian citizen;
- At least 18 years old;
- Not prohibited from voting under section 17(3) of the Municipal Elections Act or otherwise by law.

As noted above, Council is advised that an appointee cannot be one who is disqualified from holding office by this or any other Act. The Clerk is aware of one individual who would not be qualified for appointment or to be a candidate in a by-election due to failure to file required documents (i.e. financial statements), resulting in a default with the penalty of ineligibility for election or appointment to any office to which the MEA applies until after the next regular municipal election. This individual, therefore, would not be eligible for appointment.

When a vacancy on Council does occur, Council is faced with the decision on how to fill the vacant seat for the remainder of the term.

### **Historical Experience in West Lincoln:**

The Township of West Lincoln has experienced Council vacancies previously.

- 1997 – Due to the death of Ward One Councillor - Edward Beres; and,
- 2010 – Resignation of Ward Three Councillor - Joe Maloney - Immediately following the municipal election of that year; and,
- 2016 – Resignation of Ward Three Councillor, Alex Micallef.

In August of 1997, as the result of the death of Alderman Edward Beres, Ward One Councillor, Council directed the Clerk to take the appropriate action to advertise for applicants for the position of Ward 1 Alderman. Five letters of application were received and reviewed at a Special Meeting of Council on September 4, 1997 and Council adopted a resolution appointing Mary Braico to fill the present vacancy on West Lincoln

Township Council for the balance of the present term of Council. The municipal election was held on November 10, 1997 and the new Council was installed on December 1, 1997.

In 2010, immediately following the municipal election of that year, the elected member of Council for a Ward 3 Councillor position, being Joe Maloney, resigned and the Council of the day appointed the person who had the next highest number of votes to fill the vacancy, being Lou Di Leonardo, who had consented to accept the office prior to being appointed.

On March 21, 2016, the resignation submitted by Councillor Alex Micallef as Councillor for Ward 3 following approximately 16 months serving on Council was accepted with regret. Following much discussion at the April 25th, 2016 Council meeting, a motion was carried that the vacancy for the Office for One (1) Councillor Position for Ward 3 for the remainder of the 2014-2018 term of Council would be filled by way of a by-election. Subsequently, a by-election was held on Monday, August 29, 2016 resulting in Cheryl Ganann receiving the highest number of votes among four candidates that ran for the position.

In assessing its options, Council may wish to give consideration to the following, among other things:

- Representative needs at the Township level;
- Impact of time required to fill vacancy;
- Progression and time remaining in the term of Council;
- Transparency, fairness and public participation relative to the selected process; and,
- Financial and staff resource impacts.

As stated above, The Municipal Act provides the following two options:

#### **OPTION 1 – Fill Vacancy by Appointment**

Council may appoint any person to fill the vacancy that is a qualified elector under the Municipal Elections Act, 1996 and not disqualified under the Municipal Act, 2001 or any other Act from holding office.

The Municipal Act does not prescribe a specific process Council is required to follow to fill a vacancy by appointment; however, the process Council chooses to fill the vacancy by appointment should be transparent to the public and allow for public notice in keeping with the principles of the Municipal Election Act, 1996.

In the past and as noted above, there have been two methods used by the Township for the appointment process.

In 1997, an advertising process was done resulting in five letters of application being

received. This resulted in the appointment of Ms. Mary Braico filling the vacancy of Ward One Alderman on West Lincoln Township Council for the balance of this term of Council.

Another option of appointment, which was the method used in 2010, was the appointment of the third place candidate. Immediately following the 2010 municipal election, the elected member of Council for a Ward 3 Councillor position resigned and the Council of the day appointed the person who had the next highest number of votes to fill the vacancy.

Another option is the nomination of an individual(s) by Council among qualified electors with the majority of Council votes appointing to the position of Ward 2 Councillor.

If Council chooses to consider appointing one of the candidates who ran for this position in the 2018 election, the person must be approached to determine if they would consent to the appointment and are still eligible and qualified.

The results for the 2018 election for the positions of Councillors for Ward 2 (in descending order of the number of votes cast), are provided below for information.

**Non-elected- Election Results – Ward 2:**

Shelley Ann Bradaric	505 votes
Eric Leith	286 votes

As noted above, Ms. Shelley Bradaric, who ran in the 2018 Municipal Election received 505 votes being the next highest number of votes to Councillor Coady who received 558 votes and Councillor Jonker who received 617 votes, has provided correspondence which was received at the October 26<sup>th</sup>, 2020 Council Meeting advising of her interest should Council decide to appoint for the Ward 2 Councillor vacancy.

**OPTION 2 – Fill Vacancy by holding a By-Election**

The process to fill a vacancy by a by-election is prescribed by the Municipal Elections Act (MEA) and a by-election is to be conducted in basically the same method as a regular election with the exception of some time frames.

A by-law indicating that a by-election is required must be passed within 60 days of declaring the vacancy (Municipal Act Section 263(5)(1)) which means that a by-law must be adopted by no later than December 25<sup>th</sup>, 2020. If Council chooses to hold a by-election, staff recommend that a by-law be presented for adoption at a Special Meeting of Council on Monday, December 21<sup>st</sup>, 2020, in order to provide as much time as possible for staff to prepare for a by-election. This additional timeframe will be helpful in light of the nearly two week break that the Township office is closed between Christmas and New Years. Additionally, the Clerk's Department must continue to deal with their daily duties and responsibilities including but not limited to preparation of agendas and minutes each month leading up to the by-election which is contrary during an election year whereby meetings are reduced or eliminated.

**Proposed Timelines for the holding of a By-Election:  
(if by-law adopted at a Special Council Meeting on December 21, 2020)**

Monday, October 26, 2020	Declaration of vacancy
Monday, December 21, 2020	Adopt a By-law to conduct a by-election
Tuesday, December 22 <sup>nd</sup> , 2020	Nomination period begins
Friday, February 19, 2021 @ 2 pm	Nomination Day
Monday, April 5 <sup>th</sup> , 2021	Voting Day

If Council's preferred method is a by-election, specific health and safety precautions would need to be incorporated throughout the polling place to ensure that physical distancing is maintained throughout the voting process, if the pandemic is not yet concluded. Additional measures, such as purchase/rental of clear acrylic screen barriers for use between the election personnel and the electors, ensuring that only the elector touches the ballot once it has been issued, monitoring and policing the number of people permitted in a polling station at any one time, additional and stringent cleaning protocols and potential consultation with Niagara Region Public Health, etc. must all be considered. To minimize contact on the paper ballots, pricing for a ballot on demand approach would need to be explored which will reduce the number of people touching the ballot, as well as saving the cost of pre-printing ballots to accommodate voter turnout; however, it is believed that this option would be very expensive and thus increase costs substantially. Additionally, associated costs of using ballot on demand approach would include rental of ballot printers that are compatible with current vote counting equipment. Additional cost implications will be explored by the Clerk so as to incorporate all reasonable measures to protect election stakeholders.

At this time, the logistics for conducting a by-election present challenges for candidates who would need to collect the nomination signatures and campaigning door-to-door or face-to-face would be prohibited. Recruitment of election workers may also present some challenges.

The cost to conduct a by-election for Ward Two is estimated at \$25,000 to \$30,000 which would include the hard costs of equipment, supplies, advertising, etc. as well as soft costs such as labour.

**OPTION 3 – Defer the decision regarding Filling the Vacancy to the November 23, 2020 Council meeting**

Council can choose to defer the decision to the November 23<sup>rd</sup>, 2020 Council meeting in order to have additional time to consider the options presented.

**FINANCIAL IMPLICATIONS:**

**OPTION 1 - Appointment Option**

Option 1(a) and (b):

The cost to appoint the third place Candidate (Option 1(a)) or a qualified elector (Option 1(b)) would be relatively low with the majority of costs being staff time for orientation

purposes. There would be no direct election costs for this option such as advertising. This would be the most time efficient method.

**Option 1(c):**

There would be slightly higher cost if Council decides to appoint by application (Option 1(c)), with the main expense being for advertising which is estimated to be less than \$1000. There would be no direct election costs other than advertising for an application approach. This would be the second fastest option.

The majority of the costs for options 1(a), (b) or (c) would be absorbed within the current budget.

**OPTION 2 - By-Election Option**

**Option 2:**

The estimated cost to run a by-election would be approximately \$25,000 to \$30,000. The Township does have an election reserve, which is funded through the tax base at an annual amount of \$36,500. However, this election reserve is intended to finance the regular election held every four years. In the case of a by-election, the funding would come from the Contingency Reserve.

**INTER-DEPARTMENTAL COMMENTS:**

This report has been reviewed by the Treasurer/Director of Finance and CAO.

**CONCLUSION:**

Direction must be given regarding the method to be used to fill the vacancy of the Office for one (1) of the Councillor Positions for Ward 2.

For the purposes of the recommendation, Council will need to present a motion to fill the vacancy by selecting one of the following:

- Option 1(a)** - Appointment of the Third Place Candidate (Shelley Ann Bradaric)
- Option 1(b)** - Appointment of a Qualified Elector
- Option 1(c)** - Appointment by Call for Applications
- Option 2** - Direct Clerk to Conduct a By-Election
- Option 3** - Defer Decision to the November 23<sup>rd</sup>, 2020 Council Meeting


**Prepared & Submitted by:**



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**Joanne Scime, Clerk**

**Approved by:**



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**Bev Hendry, CAO**