

AGENDA

Joint Board of Management Meeting



Thursday, April 30, 2020
12:00 pm

1. Call to Order

- a. Disclosure of Pecuniary Interest

2. Procedural By-Law Amendment

Electronic Meetings

Moved By Mayor Jackie Rombouts

Seconded By Mayor Lonny Napper

"That the LAWSS Joint Board of Management **APPROVE** the report subject:
"Proposed Amendment to the Procedural By-Law to Allow for Electronic Meetings
during a Declared Emergency", dated April 30, 2020."

Moved By Mayor Jackie Rombouts

Seconded By Mayor Lonny Napper

"That By-Law No. 3-2020 be read a first and second time.

That By-Law No. 3-2020 be **READ** a third time and finally passed."

3. Adoption of Minutes

*A copy of the minutes for the Thursday February 27, 2020 meeting of the
LAWSS Joint Board of Management is attached to this agenda.*

Moved By Councillor Rick Goodhand

Seconded By Councillor Margaret Bird

"That the LAWSS Joint Board of Management **ADOPT** the February 27, 2020
meeting minutes."

4. Consent Items

Moved By Mayor Jackie Rombouts

Seconded By Councillor Rick Goodhand

"That the LAWSS Joint Board of Management **RECEIVE** as information the January 2020 and February 2020 Financial Statements, the February 2020 and March 2020 Operational Statements and the February 2020 and March 2020 Flow Summary Sheets along with the report subject: Information Report (April 30, 2020)."

a. Financial Statements

A copy of the January 2020 and February 2020 LAWSS budget statement and cash balance sheets are attached.

1. January 2020 Financial Statement
2. February 2020 Financial Statement

b. Operational Statements

The February 2020 and March 2020 Monthly Operations Reports are attached.

1. February 2020 Operational Statement
2. March 2020 Operational Statement

c. Information Report

1. February 2020 Flow Summary Sheets
2. March 2020 Flow Summary Sheets
3. Information Report (April 30, 2020)

5. Items for Discussion

a. Notice of Motion - Councillor Bird

1. Councillor Bird - Webcasting & Video Archive

For and transparency, I'm asking for a resolution of the Board to ask staff to check on Webcasting & Video Archiving:

Goal:

- accuracy when checking back over information from home*
- will also allow the general public to be able to watch these meetings, and*
- also, it will ensure meetings are run with respect and*

professionalism

Moved By Councillor Margaret Bird

Seconded By Mayor Jackie Rombouts

"That the LAWSS Joint Board of Management direct staff to prepare a report detailing options for webcasting and video achieving of future meetings of the LAWSS Board."

2. Councillor Bird - Regular Meetings

For cost-effectiveness, efficient time management, I'm asking for a resolution of the Board to ask staff to check on the following:

Moved By Councillor Margaret Bird

Seconded By Councillor Rick Goodhand

"That the LAWSS Joint Board of Management establish 9:30am as the default meeting time for regular LAWSS Board meetings."

Moved By Councillor Margaret Bird

Seconded By _____

"That the LAWSS Joint Board of Management forego the lunch expense, waste, and extra time involved for organizing and clearing away afterwards."

b. LAWSS Licence Renewal

Moved By Mayor Steve Arnold

Seconded By Councillor Margaret Bird

That the LAWSS Joint Board of Management;

1. **APPROVE** the LAWSS Financial Plan prepared by Watson & Associates Economists Ltd. dated March 17, 2020.
2. **PROVIDE notice that** the Financial Plan be advertised.
3. **SUBMIT** the approved Financial Plan dated March 17, 2020 to the Ministry of Municipal Affairs and Housing. (O. Reg. 453/07, section 3 (1) 6).
4. **SUBMIT the approved** Financial Plan and the Board resolution approving the Financial Plan to the Ministry of the Environment, Conservation and Parks, satisfying the requirements under the Safe Drinking Water Act. (S.D.W.A. section 32 (5) 2.ii.)."

c. Master Plan Update

Moved By Mayor Lonny Napper

Seconded By Mayor Jackie Rombouts

"That the LAWSS Joint Board of Management;

1. **ENDORSE** a growth factor of 11.2% for the City of Sarnia, 24.7% for St. Clair Township, 25.0% for the Town of Plympton-Wyoming, 21.7% for the Township of Warwick, 10.0% for the Village of Point Edward and 17% for the Municipality Lambton Shores for the 2020 LAWSS Master Water Plan Update.
2. **RECOGNIZE** that the Township of Warwick has undertaken a water needs analysis and that this analysis will be considered in the annual review process and future updates of the LAWSS Master Water Plan."

Moved By Mayor Steve Arnold

Seconded By Councillor Margaret Bird

"That the LAWSS Joint Board of Management **APPROVE** scope of the 2020 LAWSS Master Plan Water Update to include a sensitivity analysis with an upset limit of \$15,000."

6. Deferred Matters/Additional Business

7. Confidential

8. Upcoming Meeting Dates

List of upcoming meeting dates of the LAWSS Joint Board of Management;

- May 28, 2020
- June 25, 2020
- July 30, 2020
- August 27, 2020
- September 24, 2020
- October 29, 202
- November 26, 2020
- December 10, 2020

9. Adjournment

Moved By Mayor Steve Arnold

Seconded By Councillor Rick Goodhand

"That the LAWSS Joint Board of Management **ADJOURN** this meeting to its next board meeting held on Thursday, May 28, 2020 at 12pm and the Tourism Sarnia-Lambton Assembly Room, 1455 Venetian Blvd. Point Edward."

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To: Chair and Members
Lambton Area Water Supply System Joint Board of Management

From: Clinton Harper
General Manager

Subject: Proposed Amendment to the Procedural By-Law to Allow for Electronic Meeting during a Declaration of Emergency

Recommendation

It is recommended that the LAWSS Joint Board of Management implement By-Law 3-2020 and amend By-Law 2-2020 to permit Electronic Meetings during a period of an Emergency”

Background:

On January 1, 2018 the Province of Ontario amended the *Municipal Act, 2001 (Bill 68)* to allow municipal councils, committees and boards to adopt electronic meeting provisions in their procedural by-law. The Bill 68 Amendment specifically stated that individual participating by electronic means does not count as quorum.

The impact of COVID-19 caused the Province of Ontario to declare an emergency on March 17, 2020 pursuant to s. 7.0.1 of the Emergency Management and Civil Protection Act. In an effort to ensure decision making at the local level was not affected by existing quorum requirements during the emergency situations, the Province of Ontario adopted the Municipal Emergency Act, 2020.

The Municipal Emergency Act, 2020 temporarily rescinds the quorum requirement of Bill 68 and allows members of council, committees and certain local Boards who participate in open and closed meetings electronically to be counted for purposes of quorum during emergencies declared by the Province or declared locally. The Act also permits a municipal council, committee or local board to hold a special meeting during an emergency for the purposes of amending the procedure by-law to allow for electronic participation. During this special meeting, members participating electronically may be counted for the purposes of quorum.

Comments:

The LAWSS Procedural By-Law (the By-Law) governs the Board’s meeting procedures and processes. A review of the By-Law was completed in February 2020; just ahead of

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the current state of emergency declared by the Province of Ontario. The By-Law does not currently permit electronic meetings.

If the Board wished to conduct electronic meetings, it must first amend its Procedural By-Law 2-2020 to allow for electronic meetings.

The proposed amendment to the LAWSS Procedural By-Law to allow for electronic meetings as permitted by the Municipal Emergency Act, 2020 is attached.

Consultation:

This report was prepared in consultation with the Clerk's office at the Township of Warwick and the City of Sarnia.

Financial Implications:

None.

This report was prepared by Clinton Harper, General Manager

Attachment(s): By-Law Number 3-2020 "A By-Law to Amend By-Law No. 2-2020 to permit Electronic Meetings during a period of an Emergency"

By-Law No. 3-2020

"A By-Law to Amend By-Law No. 2-2020 to permit Electronic Meetings during a period of an Emergency"

WHEREAS Section 2 of Transfer Order Lambton Area #W1/1998 provides the Lambton Area Water Supply System Joint Board of Management with full authority and necessary powers, to manage on behalf of the Municipalities, the System.

WHEREAS the *Municipal Act, 2001*, S.O. 2001, c. 25 (the "Act"), section 238, provides that a municipality shall establish a procedure by-law to govern meetings;

AND WHEREAS By-law No. 2 of 2020 (the "Procedural By-Law"), as amended, governs the calling, place and proceedings of all meetings of The Lambton Area Water Supply System;

AND WHEREAS the Province of Ontario enacted the *Municipal Emergency Act, 2020* on March 19, 2020 to amend the Act to enact section 238 (3.3) and section (3.4) to allow meetings to be held electronically during an emergency declared by either the Province and/or one/all Municipal owner(s) of the Lambton Area Water Supply System pursuant to *Emergency Management and Civil Protection Act*, R.S.O. 1990, c. E.9 ("Provincial Emergency Act");

AND WHEREAS the Province of Ontario declared an emergency pursuant to s. 7.01 of the Provincial Emergency Act related to COVID-19 on March 17, 2020;

AND WHEREAS the Lambton Area Water Supply System Joint Board of Management considers it desirable to be able to hold meetings electronically during an emergency declared by either the Province of Ontario and/or one/all Municipal owner(s) of the Lambton Area Water Supply System pursuant to the Provincial Emergency Act.

NOW THEREFORE the Lambton Area Water Supply System Joint Board of Management hereby enact as follows:

1. The By-Law is hereby amended by adding thereto a new Section 42 that reads as follows:

42. Electronic Meetings During Declared Emergency

- a. For the purposes of this Section 42, the following terms shall have the following meaning:

"Emergency" means any period of time during which an emergency has been declared to exist by the Province of Ontario pursuant to, as applicable, section 4 and/or 7.0.1 of the *Emergency Management and Civil Protection Act*, R.S.O. 1990, c. E.9.

"Electronic Meeting" means a meeting called by the Chair and held in full or in part through such electronic means selected by the Chair, in consultation with the General

Manager, taking into account LAWSS resources, which may include, but not be limited to: audio telephone conference, video telephone conference, or online through the Internet or otherwise via the Internet, and with or without in person attendance.

- b. Notwithstanding any other Part hereof, at the call of the Chair a regular or special meeting of the Board may be conducted by Electronic Meeting during an Emergency, in accordance with this Section and any other protocol and/or policy as may be approved by Board from time to time.
 - c. A Member attending and present during an Electronic Meeting shall be counted for purposes of quorum at the commencement and at any point in time during the Meeting, and shall be entitled to vote through a vote recorded by the General Manager as if they were attending the Meeting in person.
 - d. An Electronic Meeting may include a Closed Meeting, which shall be conducted with members of the public excluded therefrom and in accordance with this Section.
 - e. A public notice of an Electronic Meeting shall include sufficient information as to provide the public with the ability to reasonably access and/or otherwise observe, by such means identified in the notice, the open session of the Electronic Meeting.
 - f. Despite any other Section hereof any person desiring to present verbally to, or to make a request of, or present correspondence to, the Board at and/or during an Electronic Meeting, shall first give the requisite notice thereof to the General Manager and meet all other requirements of these Rules of Procedure, and provided such requirements have been met, shall only be permitted to make such presentation, request or present such correspondence in writing, provided further that such written presentation, request and/or correspondence is received by the General Manager no later than 12:00 noon on the seventh day immediately preceding the Electronic Meeting.
 - g. The Rules of Procedure shall continue to apply to an Electronic Meeting held pursuant to this Section 41. In the event of any inconsistency and/or conflict between this Section 41 and any other Section of these Rules of Procedure, this Section 41 shall prevail to the extent of the inconsistency and/or conflict.
2. By-Law 3-2020 as amended is hereby ratified and confirmed in all other respects.
3. This By-law shall come into force and effect immediately upon its passing.

By-law read a first, second and third time and finally passed on this **30th day of April, 2020.**

Mayor Bev Hand, Chair

Clinton Harper, General Manager



Minutes

Joint Board of Management Meeting

Thursday, February 27, 2020

12:00 pm

Tourism Sarnia-Lambton Assembly Room

1455 Venetian Blvd. Point Edward

Members

Mayor Bev Hand, Chair, Village of Point Edward

Mayor Steve Arnold, Vice-Chair, St. Clair Township

Councillor Margaret Bird, City of Sarnia

Mayor Lonny Napper, Town of Plympton-Wyoming

Mayor Jackie Rombouts, Township of Warwick

Councillor Rick Goodhand, Municipality of Lambton Shores

LAWSS General Manager:

Clinton Harper

Technical Staff:

Brian Black, St. Clair Township

Adam Sobanski, Town of Plympton-Wyoming

Jay Verstraeten, Village of Point Edward

David Jackson, City of Sarnia

Amanda Guebels, Township of Warwick

Mark Harris, OCWA Operations Manager

Suzan Budden, OCWA

Suzanne Durling OCWA Admin

1. Declaration of Pecuniary or Conflict of Interest

2. Approval of Regular Agenda Minutes

A copy of the minutes for the Thursday January 16, 2020 meeting of the LAWSS Joint Board of Management is attached to this agenda.

Moved by: Mayor Steve Arnold

Seconded by: Councillor Rick Goodhand

"That the LAWSS Joint Board of Management **ADOPT** the January 16, 2020 meeting minutes."

Carried

3. Delegations

a. Presentation: Drinking Water Source Protection Efforts in Ontario

Jenna Allain, Source Protection Coordinator- Upper Thames River Conservation Authority & Stephen Clark, Risk Management Official / Inspector- St. Clair Region Conservation Authority

Moved by: Mayor Jackie Rombouts

Seconded by: Councillor Margaret Bird

"That the LAWSS Joint Board of Management **RECEIVE**

"Drinking Water Source Protection Efforts in Ontario" presentation as information."

Carried

4. Information Reports

The November 2019, December 2019 and January 2020 Flow Summaries and other information reports attached.

Moved by: Mayor Steve Arnold

Seconded by: Councillor Rick Goodhand

"That the LAWSS Joint Board of Management **RECEIVE** as information the October 2019, November 2019 and December 2019 Financial Statements, the November 2019, December 2019 and January 2020 Operational Statements and Flow Summaries, the 2019 Annual Report,

the 2019 Annual Summary Report, and the WTP Reservoir Maintenance Update."

Carried

a. Operational Statements

The November 2019, December 2019 and January 2020 Monthly Operations Reports are attached.

1. November 2019 Operational Statement
2. December 2019 Operational Statement
3. January 2020 Operational Statement

b. Financial Statements

A copy of the October 2019, November 2019, and December 2019 LAWSS budget statement and cash balance sheets are attached for review and approval.

1. October 2019 Financial Statement
2. November 2019 Financial Statement
3. December 2019 Financial Statement

c. November 2019 Flow Summary Sheets

d. December 2019 Flow Summary Sheets

e. January 2020 Flow Summary Sheets

f. 2019 Annual Report (Schedule 11)

g. 2019 LAWSS WTP Annual Summary Report (Schedule 22)

h. WTP Reservoir Update

5. Capital Update

a. Admin HVAC Rebuild Update

That, on the recommendation of the LAWSS General Manager, the following actions be taken with respect to the report dated February 27, 2020, with respect to the Admin HVAC project:

Moved by: Mayor Jackie Rombouts

Seconded by: Mayor Steve Arnold

"That the Admin HVAC Rebuild project **BE CLOSED** with the surplus funds in the approximate amount of \$15,995 released to the Board's reserve fund."

Carried

b. WLPS Special Valve Project

Moved by: Mayor Steve Arnold

Seconded by: Councillor Rick Goodhand

"That the LAWSS Joint Board of Management **AUTHORIZE** OCWA Engineering Group to administer a specialized valve replacement project at West Lambton Pumping Station for the quoted amount of \$25,600 +taxes."

Carried

c. LAWSS Master Plan Update – Demand Projections & Twinning & Grid Reinforcement Class EA Addendum

Moved by: Mayor Steve Arnold

Seconded by: Mayor Jackie Rombouts

"That the LAWSS Joint Board of Management **TABLE** the growth projections described in AECOM's report titled, "Water Demand Projection Analysis" dated February 19, 2020 for the development of the LAWSS Master Plan Update and allow time for Municipal Council's review and endorsement.

Carried

Moved by: Mayor Lonny Napper

Seconded by: Mayor Jackie Rombouts

"That the LAWSS Joint Board of Management **HIRE** AECOM to complete Twinning & Grid Reinforcement Class EA Addendum as per quoted amount of \$61,329.16+taxes as per section 6 under Negotiate Method in the LAWSS Procurement Policy".

Carried

d. Watermain Condition Assessment Approach and Prioritization

The LAWSS Joint Board of Management approved \$35,000 in 2020 for an Engineering Study aimed at developing a prioritization plan for watermain condition assessments going forward. The new GIS System will provide an up-to-date foundation to facilitate this effort. LAWSS approached OCWA Engineering group with a request to quote this work.

Moved by: Mayor Steve Arnold

Seconded by: Mayor Jackie Rombouts

"That the LAWSS Joint Board of Management **HIRE** OCWA to complete a watermain condition assessment approach prioritization study for the quoted amount of \$30,200+taxes as per section 6 in the Negotiate Method of the LAWSS Procurement Policy".

Carried

e. Scope of Work- RFP Engineering Design for Main Plant HVAC

Moved by: Mayor Steve Arnold

Seconded by: Mayor Jackie Rombouts

"That the LAWSS Joint Board of Management **ENDORSE** the scope of work for Engineering Design for Main Plant HVAC."

Carried

f. Scope of Work- RFP Supervisor Control and Data Acquisition (SCADA) Master Plan

Moved by: Mayor Steve Arnold

Seconded by: Mayor Jackie Rombouts

That the LAWSS Joint Board of Management **ENDORSE** the scope of work for a Supervisor Control and Data Acquisition (SCADA) Master Plan

Carried

- g. Scope of Work- RFP Engineering Design for 5kV Motor Control Group A&B Replacement.

Moved by: Mayor Jackie Rombouts

Seconded by: Councillor Rick Goodhand

"That the LAWSS Joint Board of Management **ENDORSE** the scope of work for RFP-Engineering Design for 5kV Motor Control Group A&B Replacement."

Carried

6. Reports of Committees

7. Miscellaneous Reports

8. Ongoing Issues

- a. Radiological Effluent Monitoring at LAWSS

Moved by: Mayor Steve Arnold

Seconded by: Councillor Rick Goodhand

"That the LAWSS Joint Board of Management **RECEIVE** as information and direct staff to provide followup report detailing Option 2, the development of a capital project to provide real-time radiological monitoring at LAWSS WTP for its consideration for inclusion in 2021 budget proposal."

Carried

- b. Brooke-Alvinston Water Supply System Modifications

Moved by: Mayor Jackie Rombouts

Seconded by: Councillor Rick Goodhand

"That the LAWSS Joint Board of Management **RECEIVE** as information."

Carried

c. 2020 Emergency Preparedness Scenario at LAWSS.

Moved by: Mayor Lonny Napper

Seconded by: Councillor Margaret Bird

"That the LAWSS Joint Board of Management **ENDORSE** the 2020 emergency preparedness scenario as outlined in February 27, 2020 staff report".

Carried

Moved by: Mayor Jackie Rombouts

Seconded by: Mayor Steve Arnold

"That the LAWSS Joint Board of Management **AUTHORIZE** the LAWSS General Manager to request Member Municipality staff participation in the 2020 emergency preparedness scenario."

Carried

Moved by: Mayor Steve Arnold

Seconded by: Councillor Margaret Bird

"That the LAWSS Joint Board of Management **AUTHORIZE** AECOM to proceed with hydraulic modeling in the amount of \$6746+taxes to combine Lake Huron Primary Water Supply System (LHPWS) hydraulic water model with LAWSS hydraulic water model to measure LHPWS ability to support LAWSS."

Carried

Moved by: Mayor Steve Arnold

Seconded by: Mayor Lonny Napper

"That the LAWSS Joint Board of Management **AUTHORIZE** hydraulic water modeling in relation to the 2020 emergency preparedness scenario, including system wide recommissioning, to an upset limit of \$83,231.11."

Carried

9. Correspondence

- a. Re: Nuclear Waste Management Organization (NWMO) Presentation to LAWSS

Response from NWMO on questions generated from Thursday, December 5, 2019 presentation of the Deep Geological Repository (DGR)

Moved by: Mayor Steve Arnold

Seconded by: Councillor Rick Goodhand

"That the LAWSS Joint Board of Management **RECEIVE** correspondence from National Waste Management Organization detailing response to questions generated from December 5, 2019 presentation on the Deep Geological Repository."

Carried

10. New Business

- a. LAWSS Compliance Coordinator (new FTE at LAWSS)

Moved by: Mayor Lonny Napper

Seconded by: Councillor Margaret Bird

"That the LAWSS Joint Board of Management **APPROVE** hiring a new employee at LAWSS within "Band 6" of the City of Sarnia's non-unionized rate scale."

Carried

- b. Treatment Investigations at LAWSS Water Treatment Plant

Moved by: Mayor Jackie Rombouts

Seconded by: Councillor Margaret Bird

"That the LAWSS Joint Board of Management **HIRE** Jacobs to complete the Municipal Impact Study with an upset limit of \$113,000 as per section 6 of the Negotiate Method of the LAWSS Procurement Policy".

Carried

11. By-Laws

a. By-Law No. 1-2020 Confirming

Draft Confirming By-Law to confirm the proceedings of the LAWSS for the 2019 calendar year.

Moved by: Councillor Rick Goodhand

Seconded by: Mayor Steve Arnold

"That the LAWSS Joint Board of Management **APPROVE** the 2019 Confirming By-Law."

Carried

b. By-Law No. 2-2020 to regulate the proceedings of the Lambton Area Water Supply System Joint Board of Management

Moved by: Councillor Rick Goodhand

Seconded by: Mayor Jackie Rombouts

That the LAWSS Joint Board of Management **REPEAL** By-Law Number 2-2016 and **REPLACE** with By-Law Number 2-2020 to regulate the proceedings of the Lambton Area Water Supply System Joint Board of Management.

Carried

12. IN-CAMERA Items

The Board will adjourn to an in-camera meeting if necessary.

Moved by: Mayor Jackie Rombouts

Seconded by: Mayor Steve Arnold

That the LAWSS Joint Board of Management **ADJOURN** to an in-camera session to discuss matters pursuant to section 239(2)(b) personal matters about an identifiable individual, including municipal or local board employees."

Carried

13. Chair to Rise and Report on the Matters of Public Concern from the In-Camera Session.

The Chair will report as required.

14. Adjournment/Next Meeting

Moved by: Mayor Jackie Rombouts

Seconded by: Mayor Steve Arnold

That the LAWSS Joint Board of Management **ADJOURN** this meeting to its next board meeting held on Thursday, March 26, 2020 at 12pm and the Tourism Sarnia-Lambton Assembly Room, 1455 Venetian Blvd. Point Edward."

Carried

		January Actual	Month Budget	YTD - ACTUAL	YTD - Budget	Annual Budget	Variance	Percent of Budget Used
Municipality Revenue								
4050	Municipality Revenue	-810,315.97	-810,316.25	-810,315.97	-810,315.97	-9,823,795.00	0.00	8%
	Sarnia	-472,738.50	-472,738.50	-472,738.50	-472,738.50	-5,672,862.00	0.00	8%
	St. Clair Township	-241,312.17	-241,312.17	-241,312.17	-241,312.17	-2,895,746.00	0.00	8%
	Plympton-Wyoming	-40,353.75	-40,353.75	-40,353.75	-40,353.75	-484,245.00	0.00	8%
	Lambton Shores	-15,639.08	-15,639.08	-15,639.08	-15,639.08	-187,669.00	0.00	8%
	Warwick	-20,824.89	-20,825.17	-20,824.89	-20,824.89	-249,902.00	0.00	8%
	Point Edward	-19,447.58	-19,447.58	-19,447.58	-19,447.58	-233,371.00	0.00	8%
	Bluewater Power Distribution Corp.		0.00	0.00	0.00		0.00	
4120	Brooke-Alvinston Revenue		0.00	0.00	0.00	-100,000.00	0.00	0%
	Total Municipalities Revenue	-810,315.97	-810,316.25	-810,315.97	-810,315.97	-9,823,795.00	0.00	8%
Other Revenue								
4130	Emergency Water Taking		0.00	0.00	0.00	0.00	0.00	0%
4150	LAWSS Other Revenue		0.00	0.00	0.00	0.00	0.00	0%
	Canada Coast Guard		0.00	0.00	0.00	-7,000.00	0.00	0%
	County of Lambton		0.00	0.00	0.00	-7,000.00	0.00	0%
	Bluewater Power- Reimbursement Progra,		1.00	0.00	0.00	0.00	0.00	
4430	Misc. Revenue (HST Rebate)		0.00	0.00	0.00	0.00	0.00	#DIV/0!
4430	Misc. Revenue from OCWA		0.00	0.00	0.00	0.00	0.00	0%
4430	Misc. Revenue from St. Clair		0.00	0.00	0.00	0.00	0.00	0%
	Misc. Revenue from OMWA		0.00	0.00	0.00	0.00	0.00	0%
4430	Misc. Revenue from OPA		0.00	0.00	0.00		0.00	
	Total Other Revenue	0.00	1.00	0.00	0.00	-14,000.00	0.00	0%
Investment Interest								
4420	Interest Earned	-22,859.13	-22,000.00	-22,859.13	0.00	-58,000.00	-22,859.13	39%
Project Expenses		-833,175.10	-832,315.25	-833,175.10	-810,315.97	-9,895,795.00	-22,859.13	8%
5100	Project Expenses	20,637.44	0.00	39,917.40	1,083,199.29	12,430,313.20	-530,394.21	0%
	20-1 5kV Motor Control Group A & B (Engineering)		0.00	0.00	0.00	90,000.00	-90,000.00	0%
	20-2 WTP Main Plant HVAC Repair (Engineerin Design)		0.00	0.00	0.00	111,000.00	-111,000.00	0%
	20-3 WLPS Reservoir Rehabilitation (Engineering Design)		0.00	0.00	0.00	120,000.00	-120,000.00	0%
	20-4 Indian Road WT Rehabilitation (Engineering Design)		0.00	0.00	0.00	30,000.00	-30,000.00	0%
	20-5 WTP PLC Conversion/Upgrade Construction		0.00	0.00	0.00	150,000.00	-150,000.00	0%
	20-6 Field Gate 4G Network Upgrade		0.00	0.00	0.00	75,000.00	-75,000.00	0%
	20-7 Engineering Studies		0.00	0.00	0.00	833,000.00	-833,000.00	0%
	R20-1 Financial Plan	678.74						
	Tasks carried over from 2018	19,958.70	0.00	19,958.70	529,013.05	6,348,156.60	-530,394.21	0%
	17-05 Engineering Design for Emergency Generators		0.00	0.00	22,166.67	266,000.00	-22,166.67	0%
	18-01 Rebuild 32" Ross Valve at WLBS		0.00	0.00	5,833.33	70,000.00	-5,833.33	0%
	18-02 New Generators Replacement (Including Air Louvers	19,958.70	0.00	19,958.70	458,333.33	5,500,000.00	-438,374.63	0%
	18-03 SCADA Radio Replacement Work (Installation)		0.00	0.00	64,019.58	512,156.60	-64,019.58	0%
	19-05 WTP PLC Conversion /upgrade construction		0.00	0.00	0.00	150,000.00	-150,000.00	0%
					0.00			
5150	Distribution Repairs	8,829.68	0.00	8,829.68	16,666.67	200,000.00	-7,836.99	4%
5175	Facility Maintenance		0.00	0.00	2,500.00	30,000.00	-2,500.00	0%

5125

	January Actual	Month Budget	YTD - ACTUAL	YTD - Budget	Annual Budget	Variance	Percent of Budget Used
Major Maintenance	0.00	0.00	0.00	26,000.00	312,000.00	-19,333.33	0%
MM20-01 WTO - Filter Core Sampling		0.00	0.00	1,250.00	15,000.00	-1,250.00	0%
MM20-02 WTP - VFD Flocc Mixers		0.00	0.00	3,750.00	45,000.00	-3,750.00	0%
MM20-03 WTP - Replace 7 Chlorine On-Line Analyzers		0.00	0.00	1,666.67	20,000.00	-1,666.67	0%
MM20-04 WTP - Traveling Screen Assessment and Inspection		0.00	0.00	1,000.00	12,000.00	-1,000.00	0%
MM20-05 WTP - Chemical Feed Pumps (3)		0.00	0.00	1,333.33	16,000.00	-1,333.33	0%
MM20-06 WTP - Gearbox Refub at Floc Tanks 2/yr		0.00	0.00	3,500.00	42,000.00	-3,500.00	0%
MM20-07 WTP - Lab pH meter replacement		0.00	0.00	208.33	2,500.00	-208.33	0%
MM20-08 WTP - Vibration Monitoring Program		0.00	0.00	125.00	1,500.00	-125.00	0%
MM20-09 WTP - Valve gat isolation (3) 10Inch		0.00	0.00	2,083.33	25,000.00	-2,083.33	0%
MM20-10 WTP - Low Lift Wet Well Cleanout		0.00	0.00	1,250.00	15,000.00	-1,250.00	0%
MM20-11 WLPS - Crack Injection (West Wall)		0.00	0.00	416.67	5,000.00	-416.67	0%
MM20-12 WLPS - Valve Discharge P1 Refurbish		0.00	0.00	2,083.33	25,000.00	-2,083.33	0%
MM20-13 Hyddrant Installation London Lin (blow off) 6622 London Line		0.00	0.00	1,666.67	20,000.00	-1,666.67	0%
MM20-14 Energy Conservation and efficiency studies		0.00	0.00	666.67	8,000.00	-666.67	0%
MM20-15 Chamber (Flow) Abandonment		0.00	0.00	1,666.67	20,000.00	-1,666.67	0%
MM20-16 Air Relief valves Relocate Air Valve		0.00	0.00	1,250.00	15,000.00	-1,250.00	0%
MM20-17 Hydrant Isolation valve x (3) (Gland bolts)		0.00	0.00	1,250.00	15,000.00	-1,250.00	0%
MM20-18 Repair Clamps & Appurtenances		0.00	0.00	833.33	10,000.00	-833.33	0%
General & Administrative Expenses							
5200 OCWA Operating & Maintenance	362,769.93	362,769.93	362,769.93	362,769.92	4,353,239.00	0.01	8%
5300 Flow Reconciliations	0.00	0.00	0.00	12,500.00	150,000.00	-12,500.00	0%
5400 LAWSS Wages & Benefits		20,833.33	0.00	20,833.33	250,000.00	-20,833.33	0%
5450 WSIB		0.00	0.00	125.00	1,500.00	-125.00	0%
5500 Audit Fees	1,444.38	0.00	1,444.38	1,166.67	14,000.00	277.71	10%
5505 Consulting		0.00	0.00	208.33	2,500.00		
5510 Accounting & Legal		0.00	0.00	1,666.67	20,000.00	-1,666.67	0%
5515 Advertising & Promotions		0.00	0.00	16.67	200.00	-16.67	0%
5520 Membership Fees	507.04	0.00	507.04	166.67	2,000.00	340.37	25%
5522 Education / Conference		0.00	0.00	333.33	4,000.00	-333.33	0%
5535 Courier & Postage		0.00	0.00	41.67	500.00	-41.67	0%
5540 Income Taxes		0.00	0.00	0.00	0.00	0.00	0%
5545 Property Taxes	170.66	0.00	170.66	15,000.00	180,000.00	-14,829.34	0%
5550 Property Administration	-244.55	0.00	-244.55	1,250.00	15,000.00	-1,494.55	-2%
5555 Insurance		0.00	0.00	1,750.00	21,000.00	-1,750.00	0%
5560 Interest & Bank Charges		0.00	0.00	8.33	100.00	-8.33	0%
5565 Office Supplies		0.00	0.00	250.00	3,000.00	-250.00	0%
5566 Computer Software		0.00	0.00	2,000.00	24,000.00	-2,000.00	0%
5570 Internet		0.00	0.00	125.00	1,500.00	-125.00	0%
5571 GIS and Internet Services		0.00	0.00	183.33	2,200.00	-183.33	0%
5575 Travel (Includes Mileage)		0.00	0.00	125.00	1,500.00	-125.00	0%
5576 Vehicle Expenses		0.00	0.00	1,041.67	12,500.00	-1,041.67	0%
5580 Telephone		0.00	0.00	125.00	1,500.00	-125.00	0%
5585 Mobile Phone		0.00	0.00	125.00	1,500.00	-125.00	0%
5590 Meals & Entertainment	199.94	0.00	199.94	208.33	2,500.00	-8.39	8%
5600 Miscellaneous Expense		0.00	0.00	166.67	2,000.00	-166.67	0%
St.Clair Conservation Consult		0.00	0.00	2,916.67	35,000.00		
Total Expenses	394,314.52	383,603.26	413,594.48	2,079,982.26	24,391,708.80	-57,130.85	2%

Lambton Area Water Supply System
Cash Balance Sheet as at January 31, 2020

LAWSS Bank Account on January 1, 2020	10,183,182.90
LAWSS Accounts Receivable - Received	874,781.10
	<u>11,057,964.00</u>
LAWSS Accounts Payable - Paid	30,943.90
LAWSS Accounts Payable - Outstanding	500,593.46
	<u>531,537.36</u>
LAWSS Bank Account on January 31, 2020	11,027,020.10
Adjusted Bank Balance on January 31 ,2020	10,526,426.64
Cash in Reserve	1,994,873.22

Capital Project	Budget Approved	Board Approved	Total	Consultant/Contractor	PO/Contract Fee	Spent	Unspent	Status
20-1 5kV Motor Control Group A & B (Engineering)	\$ 90,000.00		\$ 90,000.00				\$90,000.00	
20-2 WTP Main Plant HVAC Repair (Engineerin Design)	\$ 111,000.00		\$ 111,000.00				\$111,000.00	
20-3 WLPS Reservoir Rehabilitation (Engineering Design)	\$ 120,000.00		\$ 120,000.00				\$120,000.00	
20-4 Indian Road WT Rehabilitation (Engineering Design)	\$ 30,000.00		\$ 30,000.00				\$30,000.00	
20-5 WTP PLC Conversion/Upgrade Construction	\$ 150,000.00		\$ 150,000.00				\$150,000.00	
20-6 Field Gate 4G Network Upgrade	\$ 75,000.00		\$ 75,000.00				\$75,000.00	
20-7 Engineering Studies	\$ 833,000.00		\$ 833,000.00				\$833,000.00	
R20-1 LAWSS Water Financial Plan				Watson & Associations Economists		\$678.74	\$0.00	
Projects Carry forward								
17-05 Engineering Design for Emergency Generators	\$150,000.00	\$116,000.00	\$ 266,000.00	EXP Services Inc.,	PO0228	\$108,361.91	\$157,638.09	In Progress
18-01 Rebuild 32" Ross Valve at WLBS	\$ 70,000.00		\$ 70,000.00	OCWA		\$0.00	\$70,000.00	In Progress
18-02 New Generators Replacement (Including Air Louvers)	\$ 4,000,000.00	\$ 1,500,000.00	\$ 5,500,000.00	Toromont Cat, EXP		\$1,378,524.71	\$4,121,475.29	In Progress
18-03 SCADA Radio Replacement Work (Installation)	\$ 150,000.00	\$ 362,156.60	\$ 512,156.60	Experteers	PO00237, PO0233	\$380,583.94	\$131,572.66	In Progress
19-05 WTP PLC Conversion /upgrade construction	\$ 150,000.00		\$ 150,000.00			\$0.00	\$150,000.00	Planning
Major Maintenance								
MM20-01 WTO - Filter Core Sampling	\$ 15,000.00		\$ 15,000.00			\$0.00	\$15,000.00	
MM20-02 WTP - VFD Flocc Mixers	\$ 45,000.00		\$ 45,000.00			\$0.00	\$45,000.00	
MM20-03 WTP - Replace 7 Chlorine On-Line Analyzers	\$ 20,000.00		\$ 20,000.00			\$0.00	\$20,000.00	
MM20-04 WTP - Traveling Screen Assessment and Inspection	\$ 12,000.00		\$ 12,000.00			\$0.00	\$12,000.00	
MM20-05 WTP - Chemical Feed Pumps (3)	\$ 16,000.00		\$ 16,000.00			\$0.00	\$16,000.00	
MM20-06 WTP - Gearbox Refub at Floc Tanks 2/yr	\$ 42,000.00		\$ 42,000.00			\$0.00	\$42,000.00	
MM20-07 WTP - Lab pH meter replacement	\$ 2,500.00		\$ 2,500.00			\$0.00	\$2,500.00	
MM20-08 WTP - Vibration Monitoring Program	\$ 1,500.00		\$ 1,500.00			\$0.00	\$1,500.00	
MM20-09 WTP - Valve gat isolation (3) 10Inch	\$ 25,000.00		\$ 25,000.00			\$0.00	\$25,000.00	
MM20-10 WTP - Low Lift Wet Well Cleanout	\$ 15,000.00		\$ 15,000.00			\$0.00	\$15,000.00	
MM20-11 WLPS - Crack Injection (West Wall)	\$ 5,000.00		\$ 5,000.00			\$0.00	\$5,000.00	
MM20-12 WLPS - Valve Discharge P1 Refurbish	\$ 25,000.00		\$ 25,000.00			\$0.00	\$25,000.00	
MM20-13 Hyddrant Installation London Lin (blow off) 6622 London Line	\$ 20,000.00		\$ 20,000.00			\$0.00	\$20,000.00	
MM20-14 Energy Conservation and efficiency studies	\$ 8,000.00		\$ 8,000.00			\$0.00	\$8,000.00	
MM20-15 Chamber (Flow) Abandonment	\$ 20,000.00		\$ 20,000.00			\$0.00	\$20,000.00	
MM20-16 Air Relief valves Relocate Air Valve	\$ 15,000.00		\$ 15,000.00			\$0.00	\$15,000.00	
MM20-17 Hydrant Isolation valve x (3) (Gland bolts)	\$ 15,000.00		\$ 15,000.00			\$0.00	\$15,000.00	
MM20-18 Repair Clamps & Appurtenances	\$ 10,000.00		\$ 10,000.00			\$0.00	\$10,000.00	

		February Actual	Month Budget	YTD - ACTUAL	YTD - Budget	Annual Budget	Variance	Percent of Budget Used
Municipality Revenue								
4050	Municipality Revenue	-810,316.25	-810,316.25	-1,620,632.22	-1,620,632.22	-9,823,795.00	0.00	16%
	Sarnia	-472,738.50	-472,738.50	-945,477.00	-945,477.00	-5,672,862.00	0.00	17%
	St. Clair Township	-241,312.17	-241,312.17	-482,624.34	-482,624.34	-2,895,746.00	0.00	17%
	Plympton-Wyoming	-40,353.75	-40,353.75	-80,707.50	-80,707.50	-484,245.00	0.00	17%
	Lambton Shores	-15,639.08	-15,639.08	-31,278.16	-31,278.16	-187,669.00	0.00	17%
	Warwick	-20,825.17	-20,825.17	-41,650.06	-41,650.06	-249,902.00	0.00	17%
	Point Edward	-19,447.58	-19,447.58	-38,895.16	-38,895.16	-233,371.00	0.00	17%
	Bluewater Power Distribution Corp.			0.00	0.00		0.00	
4120	Brooke-Alvinston Revenue		0.00	0.00	0.00	-100,000.00	0.00	0%
	Total Municipalities Revenue	-810,316.25	-810,316.25	-1,620,632.22	-1,620,632.22	-9,823,795.00	0.00	16%
Other Revenue								
4130	Emergency Water Taking		0.00	0.00	0.00	0.00	0.00	0%
4150	LAWSS Other Revenue		0.00	0.00	0.00	0.00	0.00	0%
	Canada Coast Guard		0.00	0.00	0.00	-7,000.00	0.00	0%
	County of Lambton		0.00	0.00	0.00	-7,000.00	0.00	0%
	Bluewater Power- Reimbursement Progra,		1.00	0.00	0.00	0.00	0.00	
4430	Misc. Revenue (HST Rebate)		0.00	0.00	0.00	0.00	0.00	#DIV/0!
4430	Misc. Revenue from OCWA		0.00	0.00	0.00	0.00	0.00	0%
4430	Misc. Revenue from St. Clair		0.00	0.00	0.00	0.00	0.00	0%
	Misc. Revenue from OMWA		0.00	0.00	0.00	0.00	0.00	0%
4430	Misc. Revenue from OPA		0.00	0.00	0.00		0.00	
	Total Other Revenue	0.00	1.00	0.00	0.00	-14,000.00	0.00	0%
Investment Interest								
4420	Interest Earned	-22,030.99	-22,000.00	-44,890.12	0.00	-58,000.00	-44,890.12	77%
Project Expenses								
	Total Revenue	-832,347.24	-832,315.25	-1,665,522.34	-1,620,632.22	-9,895,795.00	-44,890.12	17%
5100	Project Expenses	92,075.00	0.00	221,418.58	1,083,199.29	12,430,313.20	-439,643.62	2%
	20-1 5kV Motor Control Group A & B (Engineering)		0.00	0.00	0.00	90,000.00	-90,000.00	0%
	20-2 WTP Main Plant HVAC Repair (Engineerin Design)		0.00	0.00	0.00	111,000.00	-111,000.00	0%
	20-3 WLPS Reservoir Rehabilitation (Engineering Design)		0.00	0.00	0.00	120,000.00	-120,000.00	0%
	20-4 Indian Road WT Rehabilitation (Engineering Design)		0.00	0.00	0.00	30,000.00	-30,000.00	0%
	20-5 WTP PLC Conversion/Upgrade Construction		0.00	0.00	0.00	150,000.00	-150,000.00	0%
	20-6 Field Gate 4G Network Upgrade		0.00	0.00	0.00	75,000.00	-75,000.00	0%
	20-7 Engineering Studies		0.00	0.00	0.00	833,000.00	-833,000.00	0%
	R20-1 Financial Plan	1,324.41	0.00	0.00	0.00	0.00		
	Tasks carried over from 2018	90,750.59	0.00	110,709.29	529,013.05	6,348,156.60	-439,643.62	2%
	17-05 Engineering Design for Emergency Generators		0.00	0.00	22,166.67	266,000.00	-22,166.67	0%
	18-01 Rebuild 32" Ross Valve at WLBS		0.00	0.00	5,833.33	70,000.00	-5,833.33	0%
	18-02 New Generators Replacement (Including Air Louvers	90,750.59	0.00	110,709.29	458,333.33	5,500,000.00	-347,624.04	2%
	18-03 SCADA Radio Replacement Work (Installation)		0.00	0.00	64,019.58	512,156.60	-64,019.58	0%
	19-05 WTP PLC Conversion /upgrade construction		0.00	0.00	0.00	150,000.00	-150,000.00	0%
					0.00			
5150	Distribution Repairs		0.00	8,829.68	16,666.67	200,000.00	-7,836.99	4%
5175	Facility Maintenance		0.00	0.00	2,500.00	30,000.00	-2,500.00	0%

5125

Major Maintenance

MM20-01 WTP - Filter Core Sampling	
MM20-02 WTP - VFD Flocc Mixers	
MM20-03 WTP - Replace 7 Chlorine On-Line Analyzers	
MM20-04 WTP - Traveling Screen Assessment and Inspection	
MM20-05 WTP - Chemical Feed Pumps (3)	
MM20-06 WTP - Gearbox Refub at Floc Tanks 2/yr	
MM20-07 WTP - Lab pH meter replacement	
MM20-08 WTP - Vibration Monitoring Program	
MM20-09 WTP - Valve gat isolation (3) 10Inch	
MM20-10 WTP - Low Lift Wet Well Cleanout	
MM20-11 WLPS - Crack Injection (West Wall)	
MM20-12 WLPS - Valve Discharge P1 Refurbish	
MM20-13 Hydrant Installation London Lin (blow off) 6622 London Line	
MM20-14 Energy Conservation and efficiency studies	
MM20-15 Chamber (Flow) Abandonment	
MM20-16 Air Relief valves Relocate Air Valve	
MM20-17 Hydrant Isolation valve x (3) (Gland bolts)	
MM20-18 Repair Clamps & Appurtenances	

February Actual	Month Budget	YTD - ACTUAL	YTD - Budget	Annual Budget	Variance	Percent of Budget Used
0.00	0.00	0.00	26,000.00	312,000.00	-19,333.33	0%
	0.00	0.00	1,250.00	15,000.00	-1,250.00	0%
	0.00	0.00	3,750.00	45,000.00	-3,750.00	0%
	0.00	0.00	1,666.67	20,000.00	-1,666.67	0%
	0.00	0.00	1,000.00	12,000.00	-1,000.00	0%
	0.00	0.00	1,333.33	16,000.00	-1,333.33	0%
	0.00	0.00	3,500.00	42,000.00	-3,500.00	0%
	0.00	0.00	208.33	2,500.00	-208.33	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	2,083.33	25,000.00	-2,083.33	0%
	0.00	0.00	1,250.00	15,000.00	-1,250.00	0%
	0.00	0.00	416.67	5,000.00	-416.67	0%
	0.00	0.00	2,083.33	25,000.00	-2,083.33	0%
	0.00	0.00	1,666.67	20,000.00	-1,666.67	0%
	0.00	0.00	666.67	8,000.00	-666.67	0%
	0.00	0.00	1,666.67	20,000.00	-1,666.67	0%
	0.00	0.00	1,250.00	15,000.00	-1,250.00	0%
	0.00	0.00	1,250.00	15,000.00	-1,250.00	0%
	0.00	0.00	833.33	10,000.00	-833.33	0%
362,769.93	362,769.93	725,539.86	362,769.92	4,353,239.00	362,769.94	17%
	0.00	0.00	12,500.00	150,000.00	-12,500.00	0%
	20,833.33	0.00	20,833.33	250,000.00	-20,833.33	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
3,074.17	0.00	4,518.55	1,166.67	14,000.00	3,351.88	32%
	0.00	0.00	208.33	2,500.00		
1,444.38	0.00	1,444.38	1,666.67	20,000.00	-222.29	7%
	0.00	0.00	16.67	200.00	-16.67	0%
	0.00	507.04	166.67	2,000.00	340.37	25%
	0.00	0.00	333.33	4,000.00	-333.33	0%
	0.00	0.00	41.67	500.00	-41.67	0%
	0.00	0.00	0.00	0.00	0.00	0%
37,117.71	0.00	37,288.37	15,000.00	180,000.00	22,288.37	21%
202.93	0.00	-41.62	1,250.00	15,000.00	-1,291.62	0%
	0.00	0.00	1,750.00	21,000.00	-1,750.00	0%
	0.00	0.00	8.33	100.00	-8.33	0%
129.49	0.00	129.49	250.00	3,000.00	-120.51	4%
	0.00	0.00	2,000.00	24,000.00	-2,000.00	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	183.33	2,200.00	-183.33	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	41.67	500.00	-41.67	0%
	0.00	0.00	0.00	0.00	0.00	0%
37,117.71	0.00	37,288.37	15,000.00	180,000.00	22,288.37	21%
202.93	0.00	-41.62	1,250.00	15,000.00	-1,291.62	0%
	0.00	0.00	1,750.00	21,000.00	-1,750.00	0%
	0.00	0.00	8.33	100.00	-8.33	0%
129.49	0.00	129.49	250.00	3,000.00	-120.51	4%
	0.00	0.00	2,000.00	24,000.00	-2,000.00	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	183.33	2,200.00	-183.33	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	41.67	500.00	-41.67	0%
	0.00	0.00	0.00	0.00	0.00	0%
37,117.71	0.00	37,288.37	15,000.00	180,000.00	22,288.37	21%
202.93	0.00	-41.62	1,250.00	15,000.00	-1,291.62	0%
	0.00	0.00	1,750.00	21,000.00	-1,750.00	0%
	0.00	0.00	8.33	100.00	-8.33	0%
129.49	0.00	129.49	250.00	3,000.00	-120.51	4%
	0.00	0.00	2,000.00	24,000.00	-2,000.00	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	183.33	2,200.00	-183.33	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	41.67	500.00	-41.67	0%
	0.00	0.00	0.00	0.00	0.00	0%
37,117.71	0.00	37,288.37	15,000.00	180,000.00	22,288.37	21%
202.93	0.00	-41.62	1,250.00	15,000.00	-1,291.62	0%
	0.00	0.00	1,750.00	21,000.00	-1,750.00	0%
	0.00	0.00	8.33	100.00	-8.33	0%
129.49	0.00	129.49	250.00	3,000.00	-120.51	4%
	0.00	0.00	2,000.00	24,000.00	-2,000.00	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	183.33	2,200.00	-183.33	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	41.67	500.00	-41.67	0%
	0.00	0.00	0.00	0.00	0.00	0%
37,117.71	0.00	37,288.37	15,000.00	180,000.00	22,288.37	21%
202.93	0.00	-41.62	1,250.00	15,000.00	-1,291.62	0%
	0.00	0.00	1,750.00	21,000.00	-1,750.00	0%
	0.00	0.00	8.33	100.00	-8.33	0%
129.49	0.00	129.49	250.00	3,000.00	-120.51	4%
	0.00	0.00	2,000.00	24,000.00	-2,000.00	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	183.33	2,200.00	-183.33	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	41.67	500.00	-41.67	0%
	0.00	0.00	0.00	0.00	0.00	0%
37,117.71	0.00	37,288.37	15,000.00	180,000.00	22,288.37	21%
202.93	0.00	-41.62	1,250.00	15,000.00	-1,291.62	0%
	0.00	0.00	1,750.00	21,000.00	-1,750.00	0%
	0.00	0.00	8.33	100.00	-8.33	0%
129.49	0.00	129.49	250.00	3,000.00	-120.51	4%
	0.00	0.00	2,000.00	24,000.00	-2,000.00	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	183.33	2,200.00	-183.33	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	41.67	500.00	-41.67	0%
	0.00	0.00	0.00	0.00	0.00	0%
37,117.71	0.00	37,288.37	15,000.00	180,000.00	22,288.37	21%
202.93	0.00	-41.62	1,250.00	15,000.00	-1,291.62	0%
	0.00	0.00	1,750.00	21,000.00	-1,750.00	0%
	0.00	0.00	8.33	100.00	-8.33	0%
129.49	0.00	129.49	250.00	3,000.00	-120.51	4%
	0.00	0.00	2,000.00	24,000.00	-2,000.00	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	183.33	2,200.00	-183.33	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	41.67	500.00	-41.67	0%
	0.00	0.00	0.00	0.00	0.00	0%
37,117.71	0.00	37,288.37	15,000.00	180,000.00	22,288.37	21%
202.93	0.00	-41.62	1,250.00	15,000.00	-1,291.62	0%
	0.00	0.00	1,750.00	21,000.00	-1,750.00	0%
	0.00	0.00	8.33	100.00	-8.33	0%
129.49	0.00	129.49	250.00	3,000.00	-120.51	4%
	0.00	0.00	2,000.00	24,000.00	-2,000.00	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
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	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	41.67	500.00	-41.67	0%
	0.00	0.00	0.00	0.00	0.00	0%
37,117.71	0.00	37,288.37	15,000.00	180,000.00	22,288.37	21%
202.93	0.00	-41.62	1,250.00	15,000.00	-1,291.62	0%
	0.00	0.00	1,750.00	21,000.00	-1,750.00	0%
	0.00	0.00	8.33	100.00	-8.33	0%
129.49	0.00	129.49	250.00	3,000.00	-120.51	4%
	0.00	0.00	2,000.00	24,000.00	-2,000.00	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
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	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	41.67	500.00	-41.67	0%
	0.00	0.00	0.00	0.00	0.00	0%
37,117.71	0.00	37,288.37	15,000.00	180,000.00	22,288.37	21%
202.93	0.00	-41.62	1,250.00	15,000.00	-1,291.62	0%
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	0.00	0.00	41.67	500.00	-41.67	0%
	0.00	0.00	0.00	0.00	0.00	0%
37,117.71	0.00	37,288.37	15,000.00	180,000.00	22,288.37	21%
202.93	0.00	-41.62	1,250.00	15,000.00	-1,291.62	0%
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	0.00	0.00	125.00	1,500.00	-125.00	0%
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	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	41.67	500.00	-41.67	0%
	0.00	0.00	0.00	0.00	0.00	0%
37,117.71	0.00	37,288.37	15,000.00	180,000.00	22,288.37	21%
202.93	0.00	-41.62	1,250.00	15,000.00	-1,291.62	0%
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	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	41.67	500.00	-41.67	0%
	0.00	0.00	0.00	0.00	0.00	0%
37,117.71	0.00	37,288.37	15,000.00	180,000.00	22,288.37	21%
202.93	0.00	-41.62	1,250.00	15,000.00	-1,291.62	0%
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	0.00	0.00	183.33	2,200.00	-183.33	0%
	0.00	0.00	125.00	1,500.00	-125.00	0%
	0.00	0.00	41.67	500.00	-41.67	0%
	0.00	0.00	0.00	0.00	0.00	0%

Lambton Area Water Supply System
Cash Balance Sheet as at February 29, 2020

LAWSS Bank Account on February 1, 2020	<u>11,027,020.10</u>
LAWSS Accounts Receivable - Received	<u>827,762.09</u>
	<u>11,854,782.19</u>
LAWSS Accounts Payable - Paid	930,200.28
LAWSS Accounts Payable - Outstanding	<u>60,855.73</u>
	<u>991,056.01</u>
LAWSS Bank Account on February 29, 2020	<u>10,924,581.91</u>
Adjusted Bank Balance on February 29, 2020	<u>10,863,726.18</u>
Cash in Reserve	<u>1,994,873.22</u>

Capital Project	Budget Approved	Board Approved	Total	Consultant/Contractor	PO/Contract Fee	Spent	Unspent	Status
20-1 5kV Motor Control Group A & B (Engineering)	\$ 90,000.00		\$ 90,000.00				\$90,000.00	
20-2 WTP Main Plant HVAC Repair (Engineerin Design)	\$ 111,000.00		\$ 111,000.00				\$111,000.00	
20-3 WLPS Reservoir Rehabilitation (Engineering Design)	\$ 120,000.00		\$ 120,000.00				\$120,000.00	
20-4 Indian Road WT Rehabilitation (Engineering Design)	\$ 30,000.00		\$ 30,000.00				\$30,000.00	
20-5 WTP PLC Conversion/Upgrade Construction	\$ 150,000.00		\$ 150,000.00				\$150,000.00	
20-6 Field Gate 4G Network Upgrade	\$ 75,000.00		\$ 75,000.00				\$75,000.00	
20-7 Engineering Studies	\$ 833,000.00		\$ 833,000.00				\$833,000.00	
R20-1 LAWSS Water Financial Plan				Watson & Associations Economists		\$2,003.15	\$0.00	
Projects Carry forward								
17-05 Engineering Design for Emergency Generators	\$150,000.00	\$116,000.00	\$ 266,000.00	EXP Services Inc.,	PO0228	\$108,361.91	\$157,638.09	In Progress
18-01 Rebuild 32" Ross Valve at WLBS	\$ 70,000.00		\$ 70,000.00	OCWA		\$0.00	\$70,000.00	In Progress
18-02 New Generators Replacement (Including Air Louvers)	\$ 4,000,000.00	\$ 1,500,000.00	\$ 5,500,000.00	Toromont Cat, EXP		\$1,469,275.30	\$4,030,724.70	In Progress
18-03 SCADA Radio Replacement Work (Installation)	\$ 150,000.00	\$ 362,156.60	\$ 512,156.60	Experteers	PO00237, PO0233	\$380,583.94	\$131,572.66	In Progress
19-05 WTP PLC Conversion /upgrade construction	\$ 150,000.00		\$ 150,000.00			\$0.00	\$150,000.00	Planning
Major Maintenance								
MM20-01 WTO - Filter Core Sampling	\$ 15,000.00		\$ 15,000.00			\$0.00	\$15,000.00	
MM20-02 WTP - VFD Flocc Mixers	\$ 45,000.00		\$ 45,000.00			\$0.00	\$45,000.00	
MM20-03 WTP - Replace 7 Chlorine On-Line Analyzers	\$ 20,000.00		\$ 20,000.00			\$0.00	\$20,000.00	
MM20-04 WTP - Traveling Screen Assessment and Inspection	\$ 12,000.00		\$ 12,000.00			\$0.00	\$12,000.00	
MM20-05 WTP - Chemical Feed Pumps (3)	\$ 16,000.00		\$ 16,000.00			\$0.00	\$16,000.00	
MM20-06 WTP - Gearbox Refub at Floc Tanks 2/yr	\$ 42,000.00		\$ 42,000.00			\$0.00	\$42,000.00	
MM20-07 WTP - Lab pH meter replacement	\$ 2,500.00		\$ 2,500.00			\$0.00	\$2,500.00	
MM20-08 WTP - Vibration Monitoring Program	\$ 1,500.00		\$ 1,500.00			\$0.00	\$1,500.00	
MM20-09 WTP - Valve gat isolation (3) 10Inch	\$ 25,000.00		\$ 25,000.00			\$0.00	\$25,000.00	
MM20-10 WTP - Low Lift Wet Well Cleanout	\$ 15,000.00		\$ 15,000.00			\$0.00	\$15,000.00	
MM20-11 WLPS - Crack Injection (West Wall)	\$ 5,000.00		\$ 5,000.00			\$0.00	\$5,000.00	
MM20-12 WLPS - Valve Discharge P1 Refurbish	\$ 25,000.00		\$ 25,000.00			\$0.00	\$25,000.00	
MM20-13 Hyddrant Installation London Lin (blow off) 6622 London Line	\$ 20,000.00		\$ 20,000.00			\$0.00	\$20,000.00	
MM20-14 Energy Conservation and efficiency studies	\$ 8,000.00		\$ 8,000.00			\$0.00	\$8,000.00	
MM20-15 Chamber (Flow) Abandonment	\$ 20,000.00		\$ 20,000.00			\$0.00	\$20,000.00	
MM20-16 Air Relief valves Relocate Air Valve	\$ 15,000.00		\$ 15,000.00			\$0.00	\$15,000.00	
MM20-17 Hydrant Isolation valve x (3) (Gland bolts)	\$ 15,000.00		\$ 15,000.00			\$0.00	\$15,000.00	
MM20-18 Repair Clamps & Appurtenances	\$ 10,000.00		\$ 10,000.00			\$0.00	\$10,000.00	



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

2020 Client Monthly Operations Report

Lambton Area Water Supply System

February 29, 2020

Facility Description

Facility Name:	Lambton Area Water Supply System
Facility Type:	Municipal
Classification:	Class 4 Water Treatment Class 4 Water Distribution
Title Holder:	Municipality
Operation Status:	OCWA
Sr. Operations Manager:	Mark Harris (519) 344-7429 Ext. 251
Business Development Manager:	Susan Budden
Capacity (m3/d):	181844
Service Area:	City of Sarnia, Village of Point Edward, Township of St. Clair, Township of Warwick-Watford, Municipality of Lambton Shores, Town of Plympton-Wyoming
Service Population:	104,162
In service Date:	1975

Operational Description

The Lambton WTP is a direct filtration surface water facility consisting of chemically assisted filtration with disinfection. The facility consists of an intake system (and alternate intake), a low lift pump station, a treatment system and distribution pumping system situated in the City of Sarnia. Water is drawn into the plant (a zebra mussel system is available as needed) and screened at the surge wells (pre-disinfection is utilized). Water flows to the pump wells where a total of 4 vertical turbine pumps are located and used as needed which pump to a discharge header. Coagulant is added, flashed mixed (PAC is also applied at this location when needed) the raw water is then flocculated (Polymer is added at the flocculation trains as needed) and diverted to filtration (10 dual media filters). The gravity fed filter effluents combine into two clear wells where sodium hypochlorite is injected. To maximize the contact time the water is diverted to the two baffled reservoirs (in series). Six vertical turbine pumps are available for supplying the distribution demand as needed. The entire water treatment system is continuously monitored (via SCADA) with continuous on-line analyzers equipped throughout the processes. The utility serves a large part of Lambton County and has over 250 kilometers of pipeline of various sizes and materials. There is also the East Lambton Booster Station with 9,000 cubic meters of storage capacity which is remotely monitored and controlled from the Lambton WTP via SCADA. During the 1997 calendar year the West Lambton Pumping Station, with the largest above ground water storage in the province with a capacity of 90,000m³, was brought on-line. This pumping station is also remotely monitored and controlled from Lambton WTP via SCADA. The LAWSS distribution system has 5 towers/elevated tanks that the utility monitors via SCADA. In 2007 the Residual Management System (RMS) which treats backwash effluent was brought on-line.

Treatment Process

Pre-treatment Chemicals:	Prechlorination (sodium hypochlorite); Zebra mussel control
Coagulation/Flocculation:	Aluminum Sulphate (Clar+Ion A7)
Filtration:	Dual Media; Filter Aid polymer
Disinfection Method:	Sodium hypochlorite
Post Treatment Chemical Addition:	Fluoride
Waste Residue Management:	Filter backwash effluent is treated by an Actiflo system.
Waste effluent/residue Disposal:	Sludge is hauled to Sarnia WPCP on a needed basis.

Inspections

February: MECP inspection starting February 12

Maintenance, Operations & Distribution Works Summary 2020

Maintenance

February:

Date	(P)reventative Capital Major Mtc (C)orrective	Description
Feb 3	Capital	Installed conduit for radio project at West Lambton Pumping Station.
Feb 3	P	Completed monthly inspection of water treatment plant compressors.
Feb 3	P	Pumped out diesel and HFS containments at the water treatment plant.
Feb 4	P	Completed 3 year inspection of Ross Valves at West Lambton Pumping Station.
Feb 4	P	Completed 6 month inspection on Pumps 1, 2 and 5 at West Lambton Pumping Station.
Feb 4	Capital	Installed conduit for radio project at East Lambton Pumping Station.
Feb 4-5	Major Mtc	Installed new pre chlorine metering pumps at the water treatment plant.
Feb 6	P	Conducted monthly inspection of eyewash and safety showers at the water treatment plant.

Feb 6	P	Completed monthly calibration of chlorine analyzers at East and West Lambton Pumping Stations.
Feb 6	Capital	Onsite at Indian Road Tower working on radio project.
Feb 7	Capital	Complete power feed for radio project at Indian Rd Tower.
Feb 7	P	Conducted monthly calibration of online chlorine analyzers at the water treatment plant.
Feb 7	Capital	Complete power feed for radio project at Indian Rd Tower.
Feb 7-12	Capital	Onsite at Port Lambton working on radio project.
Feb 10	P	Conducted monthly calibration of fluoride analyzer.
Feb 11	P	Completed monthly inspection of travelling screens at the water treatment plant.
Feb 13	Capital	Complete power feed for radio project at Port Lambton Tower.
Feb 18-19	P	Completed monthly calibration of water treatment plant turbidity analyzers.
Feb 19	C	Repaired power receptacle for Station 5 sample pumps.
Feb 19-20	P	Conducted monthly calibration of pH probes at the water treatment plant.
Feb 20	P	Completed monthly inspection of vacuum priming system at East Lambton Pumping Station.
Feb 20	C	Working on Filter 7 turbidity meter (high reading).
Feb 21	P	Completed monthly verification of Hach handheld chlorine analyzers.
Feb 21	P	Conducted monthly maintenance on streaming current meters.
Feb 21	P	Completed monthly maintenance on RMS turbidity analyzers.
Feb 21-28	Capital	Working on coding for radio project.
Feb 25	C	Meeting in regards to upcoming West Reservoir work at the water treatment plant.
Feb 27	C	Meeting in regards to upcoming West Reservoir work at the water treatment plant. Reviewing procedure.

Feb 27	P	Tested generators at East and West Lambton Pumping Station.
Feb 27	C	Tested intruder alarm at West Lambton Pumping Station and found that the signal is not getting to the water treatment plant.
Feb 27-28	P	Completed monthly inspection of floc gear drives.
Feb 28	P	Completed monthly test of water treatment plant polymer system.
Feb 28	P	Completed monthly test of RMS and EQ overflow chlorine residuals. No issues noted.
Feb 28	C	Removed 4 inches of ice on travelling screens.

Operations and Compliance

February:

Feb 1	Ran Pump 1 at West Lambton Pumping Station.
Feb 4	Calibrated lab pH probe.
Feb 11	Forest distribution in recirculation mode for distribution work.
Feb 12	MECP inspection starts.
Feb 13	Emergency preparation meeting.
Feb 14	THM/HAA reports completed.
Feb 14	Petrolia interconnect opened up for Petrolia to take water. Water taking done same day.
Feb 14	West Lambton Pumping Station PLC failure due to radio work. All valving restored to normal.
Feb 19	Notified by SGS that bacteriological samples from Feb 17 were delayed.
Feb 19-20	Resampled all distribution bacteriological samples due to Purolator delay.
Feb 21	Pre chlorine pump failed due to P+. Pump and panel was reset.
Feb 24	Pre chlorine pump failed due to P+. Pump and panel was reset.
Feb 25	Power outage at the water treatment plant. Plant being run under generator power. Generator 2 did not start right away.
Feb 26	Calibrated lab pH probe.
Feb 28	Changed Station 7 chlorine alarms to 1.8 and 1.9 mg/L in preparation for West Reservoir work.

Distribution

February:

Feb 4	Onsite for directional drill on Indian Rd and Plank.
Feb 7	Onsite for directional bore at Indian and Plank Rd.
Feb 7	Onsite for crossing of LAWSS watermain at Indian and LaSalle.
Feb 9	After hours emergency locate #2020070097.
Feb 11	Onsite for 8" hot tap on Fleming.
Feb 11	Onsite for third party work on Queen St.
Feb 11	Onsite for third party work on Lakeshore.
Feb 11	After hours emergency locate # 2020074205

Feb 12	Onsite for third party work on Wilkesport Line.
Feb 13	Third party work on Indian Rd at overpass.
Feb 20	Closed Petrolia interconnect valve.
Feb 25	Onsite for third party work on Fleming and Egremont.

Call Outs 2020

February: Call out on February 7 for afterhours emergency locate. Call out on February 29th due to leaking hydrant on London Line in Plympton-Wyoming.

One Call Utility Locates

These numbers represent the number of locate notifications that were cleared from LAWSS assets

Number of Locates/Month

YEAR	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
2019	69	62	104	164	189	149	182	153	121	148	81	50
2020	57	54										

RMS Sludge Haulage

These numbers represent total monthly amounts of sludge produced by the Residual Management System and hauled to Sarnia WPCP

Amount of sludge produced per month in m³

YEAR	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
2019	236	158	237	236	216	158	313	237	160	160	159	163
2020	241	228										

Required Monthly Reports

Monthly System Flows- see separate attached summary report

Workplace Management System Reports – see separate attached reports

Performance Data and Compliance – See separate attached report

Required Financial Reports

Quarterly Financial Summary –Q4 was due January 30, 2020. Q1 due April 30, 2020.

Semi-Annual “Schedule G” Reconcilable Commodities Report – Due July 30, 2020.

Health & Safety Work Order Summary by Facility

Start Date: 2020-02-01

End Date: 2020-02-29

Hub: Lambton

Cluster	ORG ID	Facility ID	Health and Safety					Closure Rate		
			Initiated	Approved	Completed	Total Labor Hrs	Total Cost \$	Target	Actual	Variance
LAWSS (133000)	Lambton Area Water Treatment Plant (5544)	5544, East Lambton Distribution (5544-WDEL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, East Lambton PS (5544-WPEL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Lambton Area RMS (5544-WWLA)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Lambton Area WTP (5544-WTLA)	5	5	5	8.00	331.60	85.00%	100.00%	-15.00%
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, West Lambton Booster Stn (5544-WPWL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, West ST.Clair Distribution (5544-WDWS)	1	1	1	1.00	37.79	85.00%	100.00%	-15.00%
		Lambton Area Water Treatment Plant (5544)	1	1	1	1.00	57.47	85.00%	100.00%	-15.00%
		Total	7	7	7	10.00	426.86	85.00%	100.00%	-15.00%

Key Column	Colour	Meaning
Init		No Work Orders initialized
Closed		Closure Rate between 20-50%
Closed		Closure Rate less than 20%

Health & Safety Work Order Summary by Facility

Start Date: 2020-01-01

End Date: 2020-02-29

Hub: Lambton

Cluster	ORG ID	Facility ID	Health and Safety					Closure Rate		
			Initiated	Approved	Completed	Total Labor Hrs	Total Cost \$	Target	Actual	Variance
LAWSS (133000)	Lambton Area Water Treatment Plant (5544)	5544, East Lambton Distribution (5544-WDEL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, East Lambton PS (5544-WPEL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Lambton Area RMS (5544-WWLA)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Lambton Area WTP (5544-WTLA)	9	9	9	14.75	629.64	85.00%	100.00%	-15.00%
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, West Lambton Booster Stn (5544-WPWL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, West ST.Clair Distribution (5544-WDWS)	1	1	1	1.00	37.79	85.00%	100.00%	-15.00%
		Lambton Area Water Treatment Plant (5544)	1	1	1	1.00	57.47	85.00%	100.00%	-15.00%
		Total			11	11	11	16.75	724.90	85.00%

Key Column	Colour	Meaning
Init		No Work Orders initialized
Closed		Closure Rate between 20-50%
Closed		Closure Rate less than 20%

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Work Order Summary by Facility

Start Date: 2020-02-01
End Date: 2020-02-29
Hub: Lambton

Key Col	Colour	Meaning
Init		No Work Orders initialized
Closed		Closure Rate between 20-50%
Closed		Closure Rate less than 20%

			Corrective Maintenance					Emergency Maintenance					Call Back					
			Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	
LAWSS (133000)	Lambton Area Water Treatment Plant (5544)	133000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		5544, East Lambton Distribution (5544-WDEL)	1	1	1	12.25	534.9	0	0	0	0	0	0	0	0	0	0	0
		5544, East Lambton PS (5544-WPEL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Lambton Area RMS (5544-WWLA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Lambton Area WTP (5544-WTLA)	4	4	3	5.5	270.98	0	0	0	0	0	0	0	0	0	0	0
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, West Lambton Booster Stn (5544-WPWL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, West ST.Clair Distribution (5544-WDWS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total			5	5	4	17.75	805.88	0	0	0	0.00	0.00	0	0	0	0.00	0.00	

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Work Order Summary by Facility

Start Date: 2020-02-01
End Date: 2020-02-29
Hub: Lambton

Key Col	Colour	Meaning
Init		No Work Orders initialized
Closed		Closure Rate between 20-50%
Closed		Closure Rate less than 20%

			Preventive Maintenance					Operational					Capital/Project Work					Closure Rate		
			Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Target	Actual	Variance
LAWSS (133000)	Lambton Area Water Treatment Plant (5544)	133000	0	0	0	0	0	0	0	0	0	0	1	1	0	19.25	1124.61	85%	100%	-15.0%
		5544, East Lambton Distribution (5544-WDEL)	0	0	0	0	0	4	4	4	8.5	298.5	0	0	0	0	0	85%	100%	-15.0%
		5544, East Lambton PS (5544-WPEL)	4	4	4	9.25	470.96	2	2	2	7.75	303.78	0	0	0	0	0	85%	100%	-15.0%
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Lambton Area RMS (5544-WWLA)	2	2	2	6	260.58	2	2	2	6.5	239.83	0	0	0	0	0	85%	100%	-15.0%
		5544, Lambton Area WTP (5544-WTLA)	25	25	24	86.5	3703.98	16	16	14	1458.5	42830.97	0	0	0	0	0	85%	91.11%	-6.11%
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, West Lambton Booster Stn (5544-WPWL)	10	10	10	11	503.41	2	2	2	25.75	1282	0	0	0	0	0	85%	100%	-15.0%
		5544, West ST.Clair Distribution (5544-WDWS)	0	0	0	0	0	3	3	3	4.5	190.34	0	0	0	0	0	85%	100%	-15.0%
Grand Total			41	41	40	112.75	4938.93	29	29	27	1511.5	45145.42	1	1	0	19.25	1124.61	85%	100%	-15.0%

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Work Order Summary by Facility

Start Date: 2020-01-01
End Date: 2020-02-29
Hub: Lambton

Key Col	Colour	Meaning
Init		No Work Orders initialized
Closed		Closure Rate between 20-50%
Closed		Closure Rate less than 20%

			Corrective Maintenance					Emergency Maintenance					Call Back				
			Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$
LAWSS (133000)	Lambton Area Water Treatment Plant (5544)	133000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, East Lambton Distribution (5544-WDEL)	1	1	1	12.25	534.9	0	0	0	0	0	1	1	1	10	3499.61
		5544, East Lambton PS (5544-WPEL)	1	1	0	9	381.78	0	0	0	0	0	0	0	0	0	0
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Lambton Area RMS (5544-WWLA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Lambton Area WTP (5544-WTLA)	6	6	4	146.25	7385.95	0	0	0	0	0	0	0	0	0	0
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, West Lambton Booster Stn (5544-WPWL)	1	1	1	8.5	374.02	0	0	0	0	0	0	0	0	0	0
		5544, West ST.Clair Distribution (5544-WDWS)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total			10	10	6	176	8676.65	0	0	0	0.00	0.00	1	1	1	10.00	3499.61

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Work Order Summary by Facility

Start Date: 2020-01-01
End Date: 2020-02-29
Hub: Lambton

Key Col	Colour	Meaning
Init		No Work Orders initialized
Closed		Closure Rate between 20-50%
Closed		Closure Rate less than 20%

			Preventive Maintenance					Operational					Capital/Project Work					Closure Rate		
			Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Target	Actual	Variance
LAWSS (133000)	Lambton Area Water Treatment Plant (5544)	133000	0	0	0	0	0	0	0	0	0	0	1	1	0	19.25	1124.61	85%	100%	-15.0%
		5544, East Lambton Distribution (5544-WDEL)	2	2	0	0	0	8	8	8	10.75	379.35	0	0	0	0	0	85%	83.33%	1.666%
		5544, East Lambton PS (5544-WPEL)	14	14	13	16.5	855.95	4	4	4	14.5	580.81	0	0	0	0	0	85%	89.47%	-4.47%
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Lambton Area RMS (5544-WWLA)	4	4	4	11	490.92	4	4	4	9	340.14	0	0	0	0	0	85%	100%	-15.0%
		5544, Lambton Area WTP (5544-WTLA)	63	63	53	209.75	9476.9	29	29	26	3105.75	91956.47	4	4	2	23	17209.88	85%	84.69%	0.306%
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, West Lambton Booster Stn (5544-WPWL)	15	15	15	17	837.45	4	4	4	46.5	2433.1	0	0	0	0	0	85%	100%	-15.0%
		5544, West ST.Clair Distribution (5544-WDWS)	1	1	0	0	0	6	6	5	15.25	603.09	1	1	0	10.5	651.94	85%	62.5%	22.49%
Grand Total			99	99	85	254.25	11661.22	55	55	51	3201.75	96292.96	6	6	2	52.75	18986.43	85%	100%	-15.0%

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Ontario Clean Water Agency
Time Series Info Report

Report extracted 03/05/2020 15:44

From: U
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Facility Org Number: 5544
Facility Works Number: 210000906
Facility Name: LAMBTON AREA WATER SUPPLY SYSTEM (LAWSS)
Facility Owner: Local Services Board: LAMBTON AREA WATER SUPPLY SYSTEM
Facility Classification: Class 4 Water Treatment
Receiver:
Service Population: 100000.0
Total Design Capacity: 181844.0 m3/day

	01/2020	02/2020	Total	Avg	Max	Min				
Coagulation/Floculation / Coagulant Dosage-Calculated - mg/L										
Max IH	26.437	30.355			30.355					
Mean IH	20.802	24.673		22.673						
Min IH	15.602	20.415				15.602				
Coagulation/Floculation / Coagulant Used - kg										
Max IH	1241.6	1459.2			1459.2					
Mean IH	964.129	1110.069		1034.667						
Min IH	691.2	870.4				691.2				
Total IH	29888	32192	62080							
Coagulation/Floculation / Coagulant Volume Used - m³										
Max IH	0.97	1.14			1.14					
Mean IH	0.753	0.867		0.808						
Min IH	0.54	0.68				0.54				
Total IH	23350	25150	48500							
DW THM Data / Trihalomethane: Total - µg/l										
Max Lab	31				31					
Mean Lab	29.667			29.667						
Min Lab	28					28				
East Lambton Booster Station / CI Residual: Inlet Free - mg/L										
Max OL	1.49	1.49			1.49					
Mean OL	1.359	1.372		1.365						
Min OL	0	0				0				
Filter Backwash / Backwash Volume - m³										
Max IH	2988	4208			4208					
Mean IH	2017.581	2051.793		2034.117						
Min IH	1208	1200				1200				
HFS / Fluoride Dosage - mg/L										
Max IH	0.63	0.633			0.633					
Mean IH	0.55	0.556		0.553						
Min IH	0.477	0.516				0.477				
HFS / Fluoride Used - l										
Max IH	88.823	94.553			94.553					
Mean IH	83.185	82.796		82.997						
Min IH	68.766	77.361				68.766				
Total IH	2578.73	2401.087	4979.817							
HFS / HFS (kg) - kg										
Max IH	108.364	115.355			115.355					
Mean IH	101.486	101.011		101.256						
Min IH	83.895	94.38				83.895				
Total IH	3146.051	2929.326	6075.377							
HFS / Treated Water Fluoride Residual - mg/L										
Max OL	2	0.81			2					
Mean OL	0.544	0.63		0.587						
Min OL	0	0.23				0				
Post Disinfection / Chlorine Dosage - mg/L										

Max IH	2.078	1.897			2.078				
Mean IH	1.449	1.561		1.503					
Min IH	0.822	1.03				0.822			
Post Disinfection / Hypochlorite Dosage - mg/L									
Max IH	17.316	15.809			17.316				
Mean IH	12.072	13.011		12.526					
Min IH	6.854	8.586				6.854			
Post Disinfection / Hypochlorite Used - kg									
Max IH	777.85	680.325			777.85				
Mean IH	559.262	585.231		571.814					
Min IH	254.975	358.375				254.975			
Total IH	17337.13	16971.7	34308.83						
Post Disinfection / Hypochlorite Volume-Total - m³									
Max IH	0.662	0.579			0.662				
Mean IH	0.476	0.498		0.487					
Min IH	0.217	0.305				0.217			
Total IH	14755	14444	29199						
Post Disinfection / Station 7 Cl Residual: Free - mg/L									
Max OL	5	1.75			5				
Mean OL	1.608	1.636		1.622					
Min OL	0	1.45				0			
Raw Water / Background - cfu/100mL									
Max Lab	10	5			10				
Mean Lab	2.5	1.25		1.875					
Min Lab	0	0				0			
Raw Water / Conductivity - µS/cm									
Max IH	223.4	235.2			235.2				
Mean IH	220.597	226.503		223.452					
Min IH	217.1	217.6				217.1			
Raw Water / E. Coli: EC - cfu/100mL									
Max Lab	0	0			0				
Mean Lab	0	0		0					
Min Lab	0	0				0			
Raw Water / Raw Flow Daily - m³/d									
Max IH	51462	49347			51462				
Mean IH	46223.13	45011.1		45637.32					
Min IH	37203	38233				37203			
Raw Water / Raw Flow Rate - l/s									
Max IH	595.62	571.15			595.62				
Mean IH	534.99	523.03		529.21					
Min IH	430.59	442.51				430.59			
Raw Water / Raw Water Turbidity - NTU									
Max OL	14	11.4			14				
Mean OL	2.445	3.495		2.97					
Min OL	0.26	0.51				0.26			
Raw Water / Raw Water pH - ---									
Max IH	8.27	8.16			8.27				
Mean IH	8.114	8.051		8.084					
Min IH	8.02	7.98				7.98			
Raw Water / Temperature - °C									
Max IH	10	8			10				
Mean IH	7.466	6.083		6.797					
Min IH	5.5	3				3			
Raw Water / Total Coliform: TC - cfu/100mL									
Max Lab	0	0			0				
Mean Lab	0	0		0					
Min Lab	0	0				0			
Treated Water / Background - cfu/100mL									
Max Lab	0	0			0				
Mean Lab	0	0		0					
Min Lab	0	0				0			

Treated Water / E. Coli: EC - cfu/100mL											
Max Lab		0		0				0			
Mean Lab		0		0			0				
Min Lab		0		0					0		
Treated Water / Electrical Consumption - kWh											
Total IH		1060323		1063396		2123719					
Treated Water / Flow: Total of All Sources - m³/d											
Max IH		48147		47888				48147			
Mean IH		44815.48		44078.86			44459.45				
Min IH		37737		38449					37737		
Total IH		1389280		1278287		2667567					
Treated Water / HPC - cfu/mL											
Max Lab	<	10	<	40			<	40			
Mean Lab	<	10	<	17.5			<	13.75			
Min Lab	<	10	<	10					<	10	
Treated Water / Total Coliform: TC - cfu/100mL											
Max Lab		0		0				0			
Mean Lab		0		0			0				
Min Lab		0		0					0		
Treated Water / Turbidity - NTU											
Max OL		0.094		0.11				0.11			
Mean OL		0.069		0.069			0.069				
Min OL		0.052		0.052					0.052		
West Lambton Booster Station / CI Residual: Outlet Free - mg/L											
Max OL		4.98		1.88				4.98			
Mean OL		1.666		1.694			1.68				
Min OL		0		0					0		
Zebra Mussel Control / Chlorine Dosage - mg/L											
Max IH		1.251		1.294				1.294			
Mean IH		1.057		1.137			1.096				
Min IH		0.972		0.971					0.971		
Zebra Mussel Control / CI Residual: Free - mg/L											
Max IH		0.66		0.67				0.67			
Mean IH		0.597		0.599			0.598				
Min IH		0.46		0.44					0.44		
Zebra Mussel Control / CI Residual: Total - mg/L											
Max IH		0.84		0.82				0.84			
Mean IH		0.759		0.754			0.756				
Min IH		0.61		0.6					0.6		
Zebra Mussel Control / Hypochlorite Dosage - mg/L											
Max IH		10.423		10.787				10.787			
Mean IH		8.812		9.472			9.131				
Min IH		8.102		8.095					8.095		
Zebra Mussel Control / Hypochlorite Used - kg											
Max IH		470		492.325				492.325			
Mean IH		407.081		425.512			415.989				
Min IH		339.575		358.375					339.575		
Total IH		12619.5		12339.85		24959.35					
Zebra Mussel Control / Hypochlorite Volume-Total-1 - m³											
Max IH		0.4		0.419				0.419			
Mean IH		0.346		0.362			0.354				
Min IH		0.289		0.305					0.289		
Total IH		10740		10502		21242					



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

2020 Client Monthly Operations Report

Lambton Area Water Supply System

March 31, 2020

Facility Description

Facility Name:	Lambton Area Water Supply System
Facility Type:	Municipal
Classification:	Class 4 Water Treatment Class 4 Water Distribution
Title Holder:	Municipality
Operation Status:	OCWA
Sr. Operations Manager:	Mark Harris (519) 344-7429 Ext. 251
Business Development Manager:	Susan Budden
Capacity (m3/d):	181844
Service Area:	City of Sarnia, Village of Point Edward, Township of St. Clair, Township of Warwick-Watford, Municipality of Lambton Shores, Town of Plympton-Wyoming
Service Population:	104,162
In service Date:	1975

Operational Description

The Lambton WTP is a direct filtration surface water facility consisting of chemically assisted filtration with disinfection. The facility consists of an intake system (and alternate intake), a low lift pump station, a treatment system and distribution pumping system situated in the City of Sarnia. Water is drawn into the plant (a zebra mussel system is available as needed) and screened at the surge wells (pre-disinfection is utilized). Water flows to the pump wells where a total of 4 vertical turbine pumps are located and used as needed which pump to a discharge header. Coagulant is added, flashed mixed (PAC is also applied at this location when needed) the raw water is then flocculated (Polymer is added at the flocculation trains as needed) and diverted to filtration (10 dual media filters). The gravity fed filter effluents combine into two clear wells where sodium hypochlorite is injected. To maximize the contact time the water is diverted to the two baffled reservoirs (in series). Six vertical turbine pumps are available for supplying the distribution demand as needed. The entire water treatment system is continuously monitored (via SCADA) with continuous on-line analyzers equipped throughout the processes. The utility serves a large part of Lambton County and has over 250 kilometers of pipeline of various sizes and materials. There is also the East Lambton Booster Station with 9,000 cubic meters of storage capacity which is remotely monitored and controlled from the Lambton WTP via SCADA. During the 1997 calendar year the West Lambton Pumping Station, with the largest above ground water storage in the province with a capacity of 90,000m³, was brought on-line. This pumping station is also remotely monitored and controlled from Lambton WTP via SCADA. The LAWSS distribution system has 5 towers/elevated tanks that the utility monitors via SCADA. In 2007 the Residual Management System (RMS) which treats backwash effluent was brought on-line.

Treatment Process

Pre-treatment Chemicals:	Prechlorination (sodium hypochlorite); Zebra mussel control
Coagulation/Flocculation:	Aluminum Sulphate (Clar+Ion A7)
Filtration:	Dual Media; Filter Aid polymer
Disinfection Method:	Sodium hypochlorite
Post Treatment Chemical Addition:	Fluoride
Waste Residue Management:	Filter backwash effluent is treated by an Actiflo system.
Waste effluent/residue Disposal:	Sludge is hauled to Sarnia WPCP on a needed basis.

Inspections

March: MECP inspection started February 12. Final results arrived March 31 with a 100% rating.

Offsite external audit conducted March 25th. No OFIs or non-conformities.

Maintenance, Operations & Distribution Works Summary 2020

Maintenance

March:

Date	(P)reventative Capital Major Mtc (C)orrective	Description
March 1-2	C	Drain down of West reservoir at the water treatment for inspection.
March 2	Capital	Testing East Lambton Pumping Station radio system.
March 2-3	C	West Reservoir at water treatment plant being cleaned.
March 3	P	Tested alarm system at the water treatment plant.
March 4	C	Engineers in to inspect West reservoir at the water treatment plant.
March 4	P	Completed monthly inspection of eyewash and emergency shower stations.
March 4-5	C	Crack injection of West reservoir begins.
March 5	P	Annual elevator service completed.
March 6	C	Replaced PRV on pre chlorine system to solve P+ issues.
March 6	P	Tested generators at East Lambton Pumping Station.
March 6	C	Replaced pH probe on Station 7.
March 6	P	Tested intruder alarm at West Lambton Pumping Station.
March 6	C	Removed loose louvers on the air handling units in the high lift room.

March 6	C	Filled coolant on generator 2 at the water treatment plant.
March 8	C	West reservoir superchlorinated and ready to be filled.
March 8	C	Adjusted PRV setpoints on pre chlorine system
March 9	P	Completed monthly calibration of chlorine analyzers at West Lambton Pumping Station.
March 10	P	Completed monthly inspection of online chlorine analyzers at the water treatment plant.
March 10	P	Tested diesel generators at West Lambton Pumping Station.
March 11	Capital	Meeting with Nick Wilson in regards to Ross Valve work at West Lambton Pumping Station.
March 11	P	Completed monthly maintenance on all turbidity meters at the water treatment plant.
March 12	P	Conducted monthly maintenance on vacuum priming system at East Lambton Pumping Station.
March 12	P	Conducted monthly maintenance on all pH probes at the water treatment plant.
March 12	P	Completed monthly maintenance on fluoride analyzer.
March 12	P	Conducted annual inspection of RMS gear drives.
March 16	C	Corrected issue with West Lambton fill valve.
March 17-18	P	Conducted monthly inspection of floc gear drives.
March 19	P	Conducted monthly inspection of travelling screens in the screens room.
March 20	P	Completed annual inspection of butterfly in Kiosk.
March 25	P	Completed annual inspection of screen room sluice gates.
March 31	P	Tested polymer system as per SOP
March 31	P	Tested RMS actiflo chlorine residuals, EQ overflow and plant drains. No chlorine residuals detected.
March 31	P	Completed monthly maintenance on chlorine analyzers at East Lambton Pumping Station.
March 31	P	Completed monthly inspection of Hach pocket chlorine colorimeter.
March 31	P	Completed monthly inspection of streaming current meters at the water treatment plant.
March 31	P	Conducted monthly maintenance on RMS turbidity meters.

Operations and Compliance

March:

March 1-2	Draining down West reservoir. Using new CT calculations due to bypass of reservoirs.
March 4	Pre chlorine pumps 2 and 3 failed with p+ alarm. Pumps and panels were reset.
March 5	Pre chlorine pumps 2 and 3 failed with p+ alarm. Pumps and panels were reset.
March 8	Start fill of West reservoir at water treatment plant after all work completed.

March 8	Emergency chlorine pumps started to help with reservoir fill chlorine residuals.
March 8	All pre chlorine pumps failed with p+ alarm. Pumps and panel were reset.
March 11	Completed forms and presented to Clinton all work done on reservoir.
March 11	Ravenswood taking water. Stopped taking water same day.
March 11	Sent notification to MECP that West reservoir back in service after bacteriological results came in as safe.
March 12	Emergency preparedness meeting with LAWSS GM and emergency prep team.
March 13	West Lambton Pumping Station fill valve not working. Will not open.
March 17	Conducted designated substance review.
March 19	Pre chlorine pumps 3 failed with p+ alarm. Pump and panel were reset.
March 20	Pre chlorine pumps 3 failed with p+ alarm. Pump and panel were reset.
March 25	Results of offsite external audit arrive. No OFIs or non-conformities.
March 27	HFS pump faulted with P-. Pump and panel were reset.
March 27	Filter to waste valve on Filter #6 failed to close after backwash. Valve was manually closed.
March 29	Filter to waste valve on Filter #6 failed to close after backwash. Valve was manually closed.
March 30	MDWL renewal complete and sent to MECP.
March 31	Lead sampling in St Clair Township is complete.
March 31	Results of MECP inspection back. 100%!

Distribution

March:

March 2	Meter reads complete for February.
March 3	After hours emergency locate #20200105594.
March 3	Hydrant #46 tested, flushed and placed back in service.
March 3	Site meet for drill hole work on Fleming.
March 4	Site meet at Fleming and Lakeshore for future Bell work.
March 4	Onsite to flush and pressure test hydrant on Fleming with Jacobs.
March 5	Onsite for third party work at Fleming and Lakeshore.
March 6	Onsite for third party work at Fleming and Lakeshore.
March 11	Site meet at Canatara Park for future work.
March 17	Site meet at LaSalle Line near fire school for upcoming work.
March 24	Onsite for third party work on LaSalle Line.
March 25	On site for third party work at Navoo Rd and Zion Line.
March 30	Onsite for third party work on LaSalle Line near fire school.
March 31	Meter reads complete for March.
March 31	Site meet with Bluewater Power at Exmouth and Venetian.

Call Outs 2020

March: Call out March 1st for an emergency locate and a leaking hydrant.
Call out March 28th for an emergency locate in Sombra.

One Call Utility Locates

These numbers represent the number of locate notifications that were cleared from LAWSS assets

Number of Locates/Month

YEAR	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
2019	69	62	104	164	189	149	182	153	121	148	81	50
2020	57	54	107									

RMS Sludge Haulage

These numbers represent total monthly amounts of sludge produced by the Residual Management System and hauled to Sarnia WPCP

Amount of sludge produced per month in m³

YEAR	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
2019	236	158	237	236	216	158	313	237	160	160	159	163
2020	241	228	231									

Required Monthly Reports

Monthly System Flows- see separate attached summary report

Workplace Management System Reports – see separate attached reports

Performance Data and Compliance – See separate attached report

Required Financial Reports

Quarterly Financial Summary – Q1 due April 30, 2020.

Semi-Annual “Schedule G” Reconcilable Commodities Report – Due July 30, 2020.

Health & Safety Work Order Summary by Facility

Start Date: 2020-03-01

End Date: 2020-03-31

Hub: Lambton

Cluster	ORG ID	Facility ID	Health and Safety					Closure Rate		
			Initiated	Approved	Completed	Total Labor Hrs	Total Cost \$	Target	Actual	Variance
LAWSS (133000)	Lambton Area Water Treatment	5544, East Lambton Distribution (5544-WDEL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, East Lambton PS (5544-WPEL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Lambton Area RMS (5544-WWLA)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Lambton Area WTP (5544-WTLA)	2	2	2	5.75	245.89	85.00%	100.00%	-15.00%
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, West Lambton Booster Stn (5544-WPWL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, West ST.Clair Distribution (5544-WDWS)	1	1	1	1.00	37.79	85.00%	100.00%	-15.00%
		Lambton Area Water Treatment Plant (5544)	1	1	1	2.00	74.22	85.00%	100.00%	-15.00%
		Total			4	4	4	8.75	357.90	85.00%

Key Column	Colour	Meaning
Init		No Work Orders initialized
Closed		Closure Rate between 20-50%
Closed		Closure Rate less than 20%

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Health & Safety Work Order Summary by Facility

Start Date: 2020-01-01

End Date: 2020-03-31

Hub: Lambton

Cluster	ORG ID	Facility ID	Health and Safety					Closure Rate		
			Initiated	Approved	Completed	Total Labor Hrs	Total Cost \$	Target	Actual	Variance
LAWSS (133000)	Lambton Area Water Treatment	5544, East Lambton Distribution (5544-WDEL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, East Lambton PS (5544-WPEL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Lambton Area RMS (5544-WWLA)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Lambton Area WTP (5544-WTLA)	11	11	11	20.50	875.53	85.00%	100.00%	-15.00%
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, West Lambton Booster Stn (5544-WPWL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, West ST.Clair Distribution (5544-WDWS)	2	2	2	2.00	75.58	85.00%	100.00%	-15.00%
		Lambton Area Water Treatment Plant (5544)	2	2	2	3.00	131.69	85.00%	100.00%	-15.00%
		Total	15	15	15	25.50	1082.80	85.00%	100.00%	-15.00%

Key Column	Colour	Meaning
Init		No Work Orders initialized
Closed		Closure Rate between 20-50%
Closed		Closure Rate less than 20%

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Work Order Summary by Facility

Start Date: 2020-03-01
End Date: 2020-03-31
Hub: Lambton

Key Col	Colour	Meaning
Init		No Work Orders initialized
Closed		Closure Rate between 20-50%
Closed		Closure Rate less than 20%

			Corrective Maintenance					Emergency Maintenance					Call Back				
			Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$
LAWSS (133000)	Lambton Area Water Treatment Plant (5544)	5544, East Lambton Distribution (5544-WDEL)	0	0	0	0	0	0	0	0	0	0	1	1	1	6	265.26
		5544, East Lambton PS (5544-WPEL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Lambton Area RMS (5544-WWLA)	1	1	1	1.5	55.67	0	0	0	0	0	0	0	0	0	0
		5544, Lambton Area WTP (5544-WTLA)	4	4	2	8	342.72	0	0	0	0	0	0	0	0	0	0
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, West Lambton Booster Stn (5544-WPWL)	1	1	1	1.5	55.67	0	0	0	0	0	0	0	0	0	0
		5544, West ST.Clair Distribution (5544-WDWS)	0	0	0	0	0	0	0	0	0	0	1	1	1	6	211.62
		Lambton Area Water Treatment Plant (5544)	1	1	1	2	74.22	0	0	0	0	0	0	0	0	0	0
Grand Total			7	7	5	13	528.28	0	0	0	0.00	0.00	2	2	2	12.00	476.88

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Work Order Summary by Facility

Start Date: 2020-03-01
End Date: 2020-03-31
Hub: Lambton

Key Col	Colour	Meaning
Init		No Work Orders initialized
Closed		Closure Rate between 20-50%
Closed		Closure Rate less than 20%

			Preventive Maintenance					Operational					Capital/Project Work					Closure Rate		
			Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Target	Actual	Variance
LAWSS (133000)	Lambton Area Water Treatment Plant (5544)	5544, East Lambton Distribution (5544-WDEL)	1	1	0	0	0	4	4	4	16.25	638.04	0	0	0	0	0	85%	83.33%	1.666%
		5544, East Lambton PS (5544-WPEL)	4	4	4	11.25	597.18	2	2	2	6.75	242.59	0	0	0	0	0	85%	100%	-15.0%
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Lambton Area RMS (5544-WWLA)	2	2	2	2	100.31	2	2	2	6.5	227.47	0	0	0	0	0	85%	100%	-15.0%
		5544, Lambton Area WTP (5544-WTLA)	29	29	29	75.25	2989.78	10	10	9	1615.25	45892	0	0	0	0	0	85%	93.02%	-8.02%
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, West Lambton Booster Stn (5544-WPWL)	3	3	3	8	423.8	2	2	2	14.25	669.53	0	0	0	0	0	85%	100%	-15.0%
		5544, West ST.Clair Distribution (5544-WDWS)	0	0	0	0	0	3	3	3	6.75	282.58	0	0	0	0	0	85%	100%	-15.0%
		Lambton Area Water Treatment Plant (5544)	1	1	1	2	74.22	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
Grand Total			40	40	39	98.5	4185.29	23	23	22	1665.75	47952.21	0	0	0	0	0	85%	100%	-15.0%

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Work Order Summary by Facility

Start Date: 2020-01-01
End Date: 2020-03-31
Hub: Lambton

Key Col	Colour	Meaning
Init		No Work Orders initialized
Closed		Closure Rate between 20-50%
Closed		Closure Rate less than 20%

			Corrective Maintenance					Emergency Maintenance					Call Back				
			Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$
LAWSS (133000)	Lambton Area Water Treatment Plant (5544)	133000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, East Lambton Distribution (5544-WDEL)	1	1	1	12.25	534.9	0	0	0	0	0	2	2	2	16	3764.87
		5544, East Lambton PS (5544-WPEL)	1	1	0	9	381.78	0	0	0	0	0	0	0	0	0	0
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Lambton Area RMS (5544-WWLA)	1	1	1	1.5	55.67	0	0	0	0	0	0	0	0	0	0
		5544, Lambton Area WTP (5544-WTLA)	10	10	6	154.25	7728.67	0	0	0	0	0	0	0	0	0	0
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, West Lambton Booster Stn (5544-WPWL)	2	2	2	10	429.69	0	0	0	0	0	0	0	0	0	0
		5544, West ST.Clair Distribution (5544-WDWS)	1	1	0	0	0	0	0	0	0	0	1	1	1	6	211.62
Grand Total			16	16	10	187	9130.71	0	0	0	0.00	0.00	3	3	3	22.00	3976.49

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Work Order Summary by Facility

Start Date: 2020-01-01
End Date: 2020-03-31
Hub: Lambton

Key Col	Colour	Meaning
Init		No Work Orders initialized
Closed		Closure Rate between 20-50%
Closed		Closure Rate less than 20%

			Preventive Maintenance					Operational					Capital/Project Work					Closure Rate		
			Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Target	Actual	Variance
LAWSS (133000)	Lambton Area Water Treatment Plant (5544)	133000	0	0	0	0	0	0	0	0	0	0	1	1	0	47.5	2774.99	85%	100%	-15.0%
		5544, East Lambton Distribution (5544-WDEL)	3	3	0	0	0	12	12	12	27	1031.7	0	0	0	0	0	85%	83.33%	1.666%
		5544, East Lambton PS (5544-WPEL)	18	18	17	27.75	1453.13	6	6	6	21.25	831.49	0	0	0	0	0	85%	92%	-7.00%
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Lambton Area RMS (5544-WWLA)	6	6	6	13	596.21	6	6	6	15.5	567.61	0	0	0	0	0	85%	100%	-15.0%
		5544, Lambton Area WTP (5544-WTLA)	92	92	83	287	12581.62	39	39	35	4729	138534	4	4	2	23	17209.88	85%	87.94%	-2.94%
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, West Lambton Booster Stn (5544-WPWL)	18	18	18	25	1261.25	6	6	6	60.75	3115.08	0	0	0	0	0	85%	100%	-15.0%
		5544, West ST.Clair Distribution (5544-WDWS)	1	1	0	0	0	9	9	8	22	888.15	1	1	0	10.5	651.94	85%	75%	9.999%
Grand Total			138	138	124	352.75	15892.21	78	78	73	4875.5	144968	6	6	2	81	20636.81	85%	100%	-15.0%

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Ontario Clean Water Agency
Time Series Info Report

From: 01/01/2020 to
31/03/2020

Report extracted 04/08/2020 10:07

Facility Org Number: 5544
Facility Works Number: 210000906
Facility Name: LAMBTON AREA WATER SUPPLY SYSTEM (LAWSS)
Facility Owner: Local Services Board: LAMBTON AREA WATER SUPPLY SYSTEM
Facility Classification: Class 4 Water Treatment
Receiver:
Service Population: 100000.0
Total Design Capacity: 181844.0 m3/day

	01/2020	02/2020	03/2020	Total	Avg	Max	Min
Coagulation/Floculation / Coagulant Dosage-Calculated - mg/L							
Max IH	26.437	30.355	29.818			30.355	
Mean IH	20.802	24.673	25.189		23.53		
Min IH	15.602	20.415	20.129				15.602
Coagulation/Floculation / Coagulant Used - kg							
Max IH	1241.6	1459.2	1638.4			1638.4	
Mean IH	964.129	1110.069	1104.103		1058.321		
Min IH	691.2	870.4	793.6				691.2
Total IH	29888	32192	34227.2	96307.2			
Coagulation/Floculation / Coagulant Volume Used - m³							
Max IH	0.97	1.14	1.28			1.28	
Mean IH	0.753	0.867	0.863		0.827		
Min IH	0.54	0.68	0.62				0.54
Total IH	23350	25150	26740	75240			
DW THM Data / Trihalomethane: Total - µg/l							
Max Lab	31					31	
Mean Lab	29.667				29.667		
Min Lab	28						28
East Lambton Booster Station / Cl Residual: Inlet Free - mg/L							
Max OL	1.49	1.49	1.83			1.83	
Mean OL	1.359	1.372	1.434		1.388		
Min OL	0	0	0				0
Filter Backwash / Backwash Volume - m³							
Max IH	2988	4208	3666			4208	
Mean IH	2017.581	2051.793	2001.742		2023.088		
Min IH	1208	1200	0				0
HFS / Fluoride Dosage - mg/L							
Max IH	0.63	0.633	0.647			0.647	
Mean IH	0.55	0.556	0.555		0.554		
Min IH	0.477	0.516	0.433				0.433
HFS / Fluoride Used - l							
Max IH	88.823	94.553	91.689			94.553	
Mean IH	83.185	82.796	81.437		82.466		
Min IH	68.766	77.361	63.295				63.295
Total IH	2578.73	2401.087	2524.546	7504.363			
HFS / HFS (kg) - kg							
Max IH	108.364	115.355	111.86			115.355	
Mean IH	101.486	101.011	99.353		100.608		
Min IH	83.895	94.38	77.22				77.22
Total IH	3146.051	2929.326	3079.946	9155.323			
HFS / Treated Water Fluoride Residual - mg/L							
Max OL	2	0.81	0.92			2	
Mean OL	0.544	0.63	0.692		0.622		
Min OL	0	0.23	0.51				0

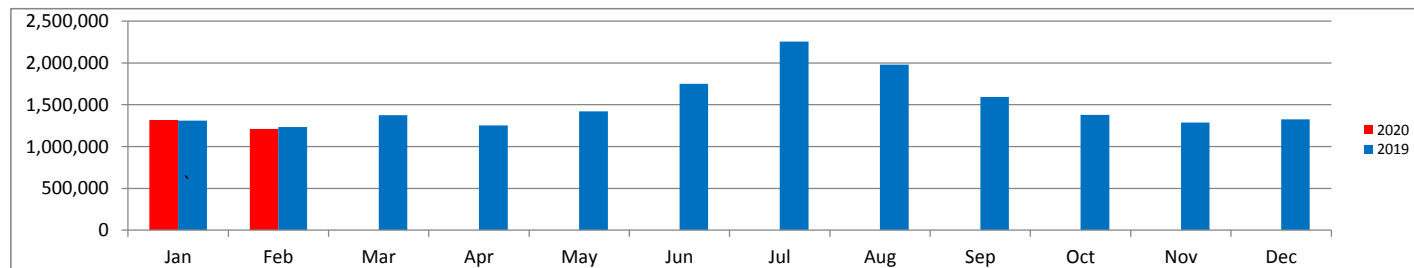
Post Disinfection / Chlorine Dosage - mg/L									
Max IH	2.078	1.897	2.157				2.157		
Mean IH	1.449	1.561	1.676			1.562			
Min IH	0.822	1.03	1.288					0.822	
Post Disinfection / Hypochlorite Dosage - mg/L									
Max IH	17.316	15.809	17.977				17.977		
Mean IH	12.072	13.011	13.971			13.018			
Min IH	6.854	8.586	10.733					6.854	
Post Disinfection / Hypochlorite Used - kg									
Max IH	777.85	680.325	1083.35				1083.35		
Mean IH	559.262	585.231	615.927			586.841			
Min IH	254.975	358.375	440.625					254.975	
Total IH	17337.13	16971.7	19093.75	53402.58					
Post Disinfection / Hypochlorite Volume-Total - m³									
Max IH	0.662	0.579	0.922				0.922		
Mean IH	0.476	0.498	0.524			0.499			
Min IH	0.217	0.305	0.375					0.217	
Total IH	14755	14444	16250	45449					
Post Disinfection / Station 7 Cl Residual: Free - mg/L									
Max OL	5	1.75	3.1				5		
Mean OL	1.608	1.636	1.816			1.687			
Min OL	0	1.45	1.45					0	
Raw Water / Background - cfu/100mL									
Max Lab	10	5	0				10		
Mean Lab	2.5	1.25	0			1.154			
Min Lab	0	0	0					0	
Raw Water / Conductivity - µS/cm									
Max IH	223.4	235.2	231.1				235.2		
Mean IH	220.597	226.503	222.677			223.188			
Min IH	217.1	217.6	217.8					217.1	
Raw Water / E. Coli: EC - cfu/100mL									
Max Lab	0	0	0				0		
Mean Lab	0	0	0			0			
Min Lab	0	0	0					0	
Raw Water / Raw Flow Daily - m³/d									
Max IH	51462	49347	68210				68210		
Mean IH	46223.13	45011.1	43968.16			45068.7			
Min IH	37203	38233	26615					26615	
Raw Water / Raw Flow Rate - l/s									
Max IH	595.62	571.15	789.47				789.47		
Mean IH	534.99	523.03	508.89			522.29			
Min IH	430.59	442.51	308.04					308.04	
Raw Water / Raw Water Turbidity - NTU									
Max OL	14	11.4	23				23		
Mean OL	2.445	3.495	3.194			3.044			
Min OL	0.26	0.51	0.587					0.26	
Raw Water / Raw Water pH - ---									
Max IH	8.27	8.16	8.13				8.27		
Mean IH	8.114	8.051	8.051			8.073			
Min IH	8.02	7.98	7.96					7.96	
Raw Water / Temperature - °C									
Max IH	10	8	12				12		
Mean IH	7.466	6.083	9.203			7.617			
Min IH	5.5	3	5.9					3	
Raw Water / Total Coliform: TC - cfu/100mL									
Max Lab	0	0	0				0		
Mean Lab	0	0	0			0			
Min Lab	0	0	0					0	
Treated Water / Background - cfu/100mL									
Max Lab	0	0	0				0		
Mean Lab	0	0	0			0			

Min Lab		0		0		0					0	
Treated Water / E. Coli: EC - cfu/100mL												
Max Lab		0		0		0			0			
Mean Lab		0		0		0		0				
Min Lab		0		0		0					0	
Treated Water / Electrical Consumption - kWh												
Total IH		1060323		1063396		1033647		3157366				
Treated Water / Flow: Total of All Sources - m³/d												
Max IH		48147		47888		47433				48147		
Mean IH		44815.48		44078.86		43484.03		44127.16				
Min IH		37737		38449		35292					35292	
Total IH		1389280		1278287		1348005		4015572				
Treated Water / HPC - cfu/mL												
Max Lab	<	10	<	40	<	10			<	40		
Mean Lab	<	10	<	17.5	<	10		<	12.308			
Min Lab	<	10	<	10	<	10					<	10
Treated Water / Total Coliform: TC - cfu/100mL												
Max Lab		0		0		0				0		
Mean Lab		0		0		0		0				
Min Lab		0		0		0					0	
Treated Water / Turbidity - NTU												
Max OL		0.094		0.11		0.741				0.741		
Mean OL		0.069		0.069		0.082		0.073				
Min OL		0.052		0.052		0.048					0.048	
West Lambton Booster Station / Cl Residual: Outlet Free - mg/L												
Max OL		4.98		1.88		2.22				4.98		
Mean OL		1.666		1.694		1.735		1.698				
Min OL		0		0		0					0	
Zebra Mussel Control / Chlorine Dosage - mg/L												
Max IH		1.251		1.294		1.283				1.294		
Mean IH		1.057		1.137		1.143		1.112				
Min IH		0.972		0.971		1.039					0.971	
Zebra Mussel Control / Cl Residual: Free - mg/L												
Max IH		0.66		0.67		0.71				0.71		
Mean IH		0.597		0.599		0.634		0.61				
Min IH		0.46		0.44		0.51					0.44	
Zebra Mussel Control / Cl Residual: Total - mg/L												
Max IH		0.84		0.82		0.86				0.86		
Mean IH		0.759		0.754		0.785		0.766				
Min IH		0.61		0.6		0.67					0.6	
Zebra Mussel Control / Hypochlorite Dosage - mg/L												
Max IH		10.423		10.787		10.696				10.787		
Mean IH		8.812		9.472		9.521		9.264				
Min IH		8.102		8.095		8.656					8.095	
Zebra Mussel Control / Hypochlorite Used - kg												
Max IH		470		492.325		667.4				667.4		
Mean IH		407.081		425.512		418.262		416.763				
Min IH		339.575		358.375		278.475					278.475	
Total IH		12619.5		12339.85		12966.13		37925.48				
Zebra Mussel Control / Hypochlorite Volume-Total-1 - m³												
Max IH		0.4		0.419		0.568				0.568		
Mean IH		0.346		0.362		0.356		0.355				
Min IH		0.289		0.305		0.237					0.237	
Total IH		10740		10502		11035		32277				

LAWSS Flow Summary

Draft

Total Flows as of Feb 2020														Total	% Total
LAWSS Member		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year To Date for: Jan - Feb	
Sarnia	2020	776,102	727,623	0	0	0	0	0	0	0	0	0	0	1,503,725	59.72
	2019	763,540	710,071	793,833	772,802	859,360	928,004	1,306,982	1,232,482	954,642	843,767	740,144	786,066	10,691,693	59.34
Point Edward	2020	27,526	23,425	0	0	0	0	0	0	0	0	0	0	50,951	2.02
	2019	27,627	25,262	28,086	27,709	32,081	38,498	50,463	53,100	36,311	31,273	40,091	26,845	417,348	2.32
St. Clair	2020	387,392	342,521	0	0	0	0	0	0	0	0	0	0	729,913	28.99
	2019	407,497	389,310	437,481	329,430	376,717	607,849	669,638	489,505	436,191	363,446	370,260	379,175	5,256,498	29.18
Plympton/Wyoming	2020	61,058	58,397	0	0	0	0	0	0	0	0	0	0	119,455	4.74
	2019	60,624	55,794	61,245	63,800	73,513	86,825	126,745	108,289	79,740	69,076	65,525	62,935	914,109	5.07
Lambton Shores	2020	30,090	24,113	0	0	0	0	0	0	0	0	0	0	54,202	2.15
	2019	12,193	15,213	12,491	14,747	28,233	32,872	43,978	43,586	42,789	28,509	31,238	28,078	333,927	1.85
Watford/Warwick	2020	30,802	28,896	0	0	0	0	0	0	0	0	0	0	59,698	2.37
	2019	29,976	28,550	30,013	31,163	35,804	35,885	41,573	41,590	34,374	33,837	29,148	30,712	402,627	2.23
														2020	2517944
Others														2019	18016202
Alvinston	2020	6,170	5,675	0	0	0	0	0	0	0	0	0	0	11,846	0.47
	2019	7,072	6,668	10,291	12,120	16,322	18,398	15,460	11,028	8,694	9,193	10,813	10,829	136,888	0.75
Petrolia	2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
	2019	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
Chatham-Kent	2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
	2019	0	1,072	0	778	129	0	0	0	0	0	0	0	1,979	0.01
Totals	2020	1,319,140	1,210,650	0	0	0	0	0	0	0	0	0	0	2,529,790	
	2019	1,308,530	1,231,940	1,373,440	1,252,550	1,422,160	1,748,330	2,254,838	1,979,580	1,592,740	1,379,100	1,287,220	1,324,640	18,155,069	



Note:

Work Sheet Revision Date: 04-Feb-2020

Current Year 2020
Last month entered Feb

Year to Date
Total

LAWSS Members	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan - Feb
City of Sarnial:	776,102	727,623	0	0	0	0	0	0	0	0	0	0	1,503,725
Point Edward:	27,526	23,425	0	0	0	0	0	0	0	0	0	0	50,951
St. Clair Township:	387,392	342,521	0	0	0	0	0	0	0	0	0	0	729,913
Plympton/Wyoming:	61,058	58,397	0	0	0	0	0	0	0	0	0	0	119,455
Lambton Shores:	30,090	24,113	0	0	0	0	0	0	0	0	0	0	54,202
Watford/Warwick:	30,802	28,896	0	0	0	0	0	0	0	0	0	0	59,698
	1,312,970	1,204,975	0	0	0	0	0	0	0	0	0	0	2,517,944
Others													
Town of Alvinston:	6,170	5,675	0	0	0	0	0	0	0	0	0	0	11,846
Town of Petrolia:	0	0	0	0	0	0	0	0	0	0	0	0	0
Chatham-Kent:	0	0	0	0	0	0	0	0	0	0	0	0	0
	1,319,140	1,210,650	0	0	0	0	0	0	0	0	0	0	
	1,319,140	1,210,650	0	0	0	0	0	0	0	0	0	0	2,529,790

Last Years Data 2019

LAWSS Members

City of Sarnial:	763,540	710,071	793,833	772,802	859,360	928,004	1,306,982	1,232,482	954,642	843,767	740,144	786,066	10,691,693
Point Edward:	27,627	25,262	28,086	27,709	32,081	38,498	50,463	53,100	36,311	31,273	40,091	26,845	417,348
St. Clair Township:	407,497	389,310	437,481	329,430	376,717	607,849	669,638	489,505	436,191	363,446	370,260	379,175	5,256,498
Plympton/Wyoming:	60,624	55,794	61,245	63,800	73,513	86,825	126,745	108,289	79,740	69,076	65,525	62,935	914,109
Lambton Shores:	12,193	15,213	12,491	14,747	28,233	32,872	43,978	43,586	42,789	28,509	31,238	28,078	333,927
Watford/Warwick:	29,976	28,550	30,013	31,163	35,804	35,885	41,573	41,590	34,374	33,837	29,148	30,712	402,627
	1,301,458	1,224,200	1,363,150	1,239,652	1,405,708	1,729,932	2,239,379	1,968,552	1,584,046	1,369,907	1,276,407	1,313,811	18,016,202
Others													
Town of Alvinston:	7,072	6,668	10,291	12,120	16,322	18,398	15,460	11,028	8,694	9,193	10,813	10,829	136,888
Town of Petrolia:	0	0	0	0	0	0	0	0	0	0	0	0	0
Chatham-Kent:	0	1,072	0	778	129	0	0	0	0	0	0	0	1,979
	1,308,530	1,231,940	1,373,440	1,252,550	1,422,160	1,748,330	2,254,838	1,979,580	1,592,740	1,379,100	1,287,220	1,324,640	
	1,308,530	1,231,940	1,373,440	1,252,550	1,422,160	1,748,330	2,254,838	1,979,580	1,592,740	1,379,100	1,287,220	1,324,640	18,155,069

Work Sheet Revision Date: 04-Feb-2020

LAWSS Water used by the

Lambton Area Water Supply System

1215 Fort St. Sarnia, On N7V 1M1

Phone: (519) 344-7429

Fax: (519) 344-4337

City of Sarnia

For the Month of: **February 2020**

2

Meter num	Meter Location	Read date 29-Feb-20	Last Read date 31-Jan-20	Difference	Calibration Adjustments		X	Flow
					As Found	As Left		
15	HighL High Net Flow Totalizer	1,928,466	1,928,466	0			1	0
13	HighL Low Net Flow Totalizer	193,951,710	192,741,060	1,210,650			1	1,210,650

Entering Sarnia: 1,210,650
Members Monthly % Used

Leaving Sarnia to LAWSS Members:

Village of Point Edward - Grand Total:	23,425	1.9
St. Clair Township - Grand Total:	342,521	28.4
Plympton/Wyoming - Grand Total:	58,397	4.8
Lambton Shores - Grand Total:	24,113	2.0
Village of Watford/Township of Warwick - Grand Total:	28,896	2.4

Leaving Sarnia to Others:

Town of Alvinston - Grand Total:	5,675
Town of Petrolia - Grand Total:	0
Chatham-Kent Area Water - Grand Total:	0

Metered Consumption: 727,623

Reason for Adjustment:

Adjustments:

City of Sarnia - Total Consumption: 727,623

Leakage rate adjustment 0% 0

City of Sarnia - Grand Total: 727,623 60.4

Overall Grand Total: 1,210,650 100.0



Mark Harris (Operations Manager)

LAWSS Water used by the

Village of Point Edward

For the Month of: February 2020

Lambton Area Water Supply System

1215 Fort St. Sarnia, On N7V 1M1

Phone:(519)344-7429

Fax: (519)344-4337

Meter num	Meter Location	Read date 29-Feb-20	Last Read date 31-Jan-20	Difference	Calibration Adjustments		X	Flow	%
					As Found	As Left			
CH01	Venetian Vill (Mag)	493,039	488,166	4,873			1	4,873	21.6
CH02	Ven & Exmouth (Mag)	43,221	42,765	457			1	457	2.0
CH03	Michigan & Monk (Mag)	1,094,488	1,078,800	15,689			1	15,689	69.7
CH04	Michigan & Front (Mag)	139,297	137,792	1,505			1	1,505	6.7
								Metered Consumption:	22,524 100.0

Reason for Adjustment:

Adjustments:

Village of Point Edward - Total Consumption: 22,524

Leakage rate adjustment 4% 901

Village of Point Edward - Grand Total: 23,425



Mark Harris (Operations Manager)

LAWSS Water used by the

St. Clair Township

For the Month of: February 2020

Lambton Area Water Supply System

1215 Fort St. Sarnia, On N7V 1M1

Phone:(519)344-7429

Fax: (519)344-4337

Meter num	Meter Location	Read date 29-Feb-20	Last Read date 31-Jan-20	Difference	Calibration Adjustments		X	Flow	%
					As Found	As Left			
WL-O 3100	WL High Net Flow - West Lambton Plank Road (3/4)	38,791,516 3,830	38,462,364 3,625	329,152 205			1 1	329,152 205	99.9 0.1
	Back to Sarnia								
1100	LaSalle & Parkway	8,939	8,931	8			1	8	0.0
1090	LaSalle & Tashmoo	5,056	5,054	2			1	2	0.0
Entering St. Clair Township:								329,357	100.0
Leaving St. Clair Township									
Back to Sarnia:								10	0.0
Chatham-Kent Area Water - Total Consumption:								0	
Metered Consumption:								329,347	100.0
Adjustments:									
St. Clair Township - Total Consumption:								329,347	
Leakage rate adjustment 4%								13,174	
St. Clair Township - Grand Total:								342,521	

Reason for Adjustment:



Mark Harris (Operations Manager)

Township of Plympton / Village of Wyoming

For the Month of: February 2020

Meter num	Meter Location	Read date 29-Feb-20	Last Read date 31-Jan-20	Difference	Calibration Adjustments As FoundAs Left	X	Flow	%	
Entering Plympton									
5001	Ch05 Low Net Flow - Maundaumin	57,809	57,809	0		1	0		
5002	Ch05 High Net Flow - Maundaumin	18,368,224	18,255,428	112,796		1	112,796		
Village of Wyoming									
8001	Wyoming	432,670	432,670	0		1	0		
8002	Wyoming	1,941	713	1,228		10	12,280		
Back to Sarnia									
1005	Brights Grove (Sarnia)	610	610	0		0.1	0		
1006	Brights Grove (Sarnia)	81,540	81,540	0		10	0		

Entering Plympton: 112,796**Leaving Plympton**

Village of Wyoming: 12,280

Back to Sarnia: 0

Lambton Shores - Total Consumption: 23,185

Watford/Warwick - Total Consumption: 27,785

Town of Alvinston - Total Consumption: 5,675

Town of Petrolia - Total Consumption: 0

Metered Consumption For Plympton: 43,871

Village of Wyoming: 12,280

Reason for Adjustment:**Adjustments:****Plympton/Wyoming - Total Consumption:** 56,151

Leakage rate adjustment 4% 2,246

Plympton/Wyoming - Grand Total: 58,397**Mark Harris (Operations Manager)**

LAWSS Water used by the

Lambton Shores

For the Month of: February 2020

Lambton Area Water Supply System

1215 Fort St. Sarnia, On N7V 1M1

Phone:(519)344-7429

Fax: (519)344-4337

Meter num	Meter Location	Read date	Last Read date	Calibration Adjustments		X	Flow	%
		29-Feb-20	31-Jan-20	Difference	As Found	As Left		
7003	Ch07 High Net Flow - Townsend	3,653,204	3,631,130	22,074			1	22,074
7004	Ch07 Low Net Flow - Townsend	250,356	249,245	1,112			1	1,112

Metered Consumption: 23,185

Reason for Adjustment:

Adjustments:

Lambton Shores - Total Consumption: 23,185

Leakage rate adjustment 4% 927

Lambton Shores - Grand Total: 24,113



Mark Harris (Operations Manager)

LAWSS Water used by the
Village of Watford/Township of Warwick
For the Month of: February 2020

Lambton Area Water Supply System
1215 Fort St. Sarnia, On N7V 1M1
Phone: (519) 344-7429
Fax: (519) 344-4337

Meter num	Meter Location	Read date 29-Feb-20	Last Read date 31-Jan-20	Difference	Calibration Adjustments As Found As Left	X	Flow	%
Entering Watford/Warwick								
9001	Ch10 High Net Flow - London Line	6,761,066	6,720,011	41,056			1	41,056
9002	Ch10 Low Net Flow - London Line	638,992	635,543	3,448			1	3,448
9003	Ch11 High Net Flow - Confederation	1,148,893	1,139,767	9,126			1	9,126
9004	Ch11 Low Net Flow - Confederation	54,702	56,424	-1,722			1	-1,722
Leaving Watford/Warwick								
5013	Ch09 High Net Flow - Egremont	2,744,507	2,726,059	18,448			1	18,448
AF	Alvin High Net Flow Totalizer	1,547,462	1,541,787	5,675			1	5,675

<u>Entering Watford/Warwick:</u>	51,908
<u>Leaving Watford/Warwick:</u>	24,123
<u>Metered Consumption:</u>	27,785
Adjustments:	

Reason for Adjustment:



Mark Harris (Operations Manager)

Watford/Warwick - Total Consumption:	27,785
Leakage rate adjustment 4%	1,111
<u>Village of Watford/Township of Warwick - Grand Total:</u>	28,896

LAWSS Water used by the

Town of Alvinston

For the Month of: February 2020

Lambton Area Water Supply System

1215 Fort St. Sarnia, On N7V 1M1

Phone:(519)344-7429

Fax: (519)344-4337

Meter num	Meter Location	Read date	Last Read date	Difference	Calibration Adjustments		X	Flow	%
		29-Feb-20	31-Jan-20		As Found	As Left			
AF	Alvin High Net Flow Totalizer	1,547,462	1,541,787	5,675			1	5,675	

Metered Consumption: 5,675

Reason for Adjustment:

Adjustments:

Town of Alvinston - Total Consumption: 5,675

Leakage rate adjustment 0% 0

Town of Alvinston - Grand Total: 5,675



Mark Harris (Operations Manager)

LAWSS Water used by the

Town of Petrolia

For the Month of: February 2020

Lambton Area Water Supply System

1215 Fort St. Sarnia, On N7V 1M1

Phone:(519)344-7429

Fax: (519)344-4337

Meter num	Meter Location	Read date	Last Read date	Difference	Calibration Adjustments		X	Flow	%
		29-Feb-20	31-Jan-20		As Found	As Left			
PF	Petrolia Flows	133,549	133,549	0			1	0	

Metered Consumption: 0

Reason for Adjustment:

Adjustments:

Town of Petrolia - Total Consumption: 0

Leakage rate adjustment 0% 0

Town of Petrolia - Grand Total: 0



Mark Harris (Operations Manager)

LAWSS Water used by the

Chatham-Kent Area WaterFor the Month of: **February 2020**

Meter num	Meter Location	Read date	Last Read date	Difference	Calibration Adjustments		X	Flow	%
		29-Feb-20	31-Jan-20		As Found	As Left			
CKF	Chatham-Kent Flows	907	907	0			1	0	

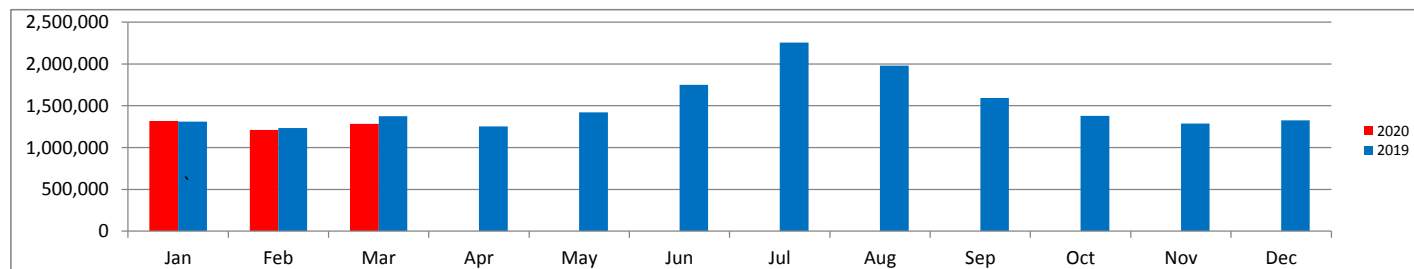
Metered Consumption: 0**Reason for Adjustment:****Adjustments:****Chatham-Kent Area Water - Total Consumption:** 0

Leakage rate adjustment 0% 0

Chatham-Kent Area Water - Grand Total: 0**Mark Harris (Operations Manager)**

LAWSS Flow Summary

Total Flows as of Mar 2020														Year To Date for:	
LAWSS Member		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan - Mar	
Sarnia	2020	776,102	727,623	774,972	0	0	0	0	0	0	0	0	0	2,278,698	60.14
	2019	763,540	710,071	793,833	772,802	859,360	928,004	1,306,982	1,232,482	954,642	843,767	740,144	786,066	10,691,693	59.34
Point Edward	2020	27,526	23,425	23,101	0	0	0	0	0	0	0	0	0	74,052	1.95
	2019	27,627	25,262	28,086	27,709	32,081	38,498	50,463	53,100	36,311	31,273	40,091	26,845	417,348	2.32
St. Clair	2020	387,392	342,521	355,870	0	0	0	0	0	0	0	0	0	1,085,783	28.65
	2019	407,497	389,310	437,481	329,430	376,717	607,849	669,638	489,505	436,191	363,446	370,260	379,175	5,256,498	29.18
Plympton/Wyoming	2020	61,058	58,397	57,610	0	0	0	0	0	0	0	0	0	177,064	4.67
	2019	60,624	55,794	61,245	63,800	73,513	86,825	126,745	108,289	79,740	69,076	65,525	62,935	914,109	5.07
Lambton Shores	2020	30,090	24,113	26,482	0	0	0	0	0	0	0	0	0	80,685	2.13
	2019	12,193	15,213	12,491	14,747	28,233	32,872	43,978	43,586	42,789	28,509	31,238	28,078	333,927	1.85
Watford/Warwick	2020	30,802	28,896	33,215	0	0	0	0	0	0	0	0	0	92,914	2.45
	2019	29,976	28,550	30,013	31,163	35,804	35,885	41,573	41,590	34,374	33,837	29,148	30,712	402,627	2.23
													2020	3789196	
Others													2019	18016202	
Alvinston	2020	6,170	5,675	6,309	0	0	0	0	0	0	0	0	0	18,154	0.48
	2019	7,072	6,668	10,291	12,120	16,322	18,398	15,460	11,028	8,694	9,193	10,813	10,829	136,888	0.75
Petrolia	2020	0	0	6,120	0	0	0	0	0	0	0	0	0	6,120	0.16
	2019	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
Chatham-Kent	2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
	2019	0	1,072	0	778	129	0	0	0	0	0	0	0	1,979	0.01
Totals	2020	1,319,140	1,210,650	1,283,680	0	0	0	0	0	0	0	0	0	3,813,470	
	2019	1,308,530	1,231,940	1,373,440	1,252,550	1,422,160	1,748,330	2,254,838	1,979,580	1,592,740	1,379,100	1,287,220	1,324,640	18,155,069	



Note:

Work Sheet Revision Date: 04-Feb-2020

Current Year 2020
Last month entered Mar

Year to Date
Total

LAWSS Members	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan - Mar
City of Sarnial:	776,102	727,623	774,972	0	0	0	0	0	0	0	0	0	2,278,698
Point Edward:	27,526	23,425	23,101	0	0	0	0	0	0	0	0	0	74,052
St. Clair Township:	387,392	342,521	355,870	0	0	0	0	0	0	0	0	0	1,085,783
Plympton/Wyoming:	61,058	58,397	57,610	0	0	0	0	0	0	0	0	0	177,064
Lambton Shores:	30,090	24,113	26,482	0	0	0	0	0	0	0	0	0	80,685
Watford/Warwick:	30,802	28,896	33,215	0	0	0	0	0	0	0	0	0	92,914
	1,312,970	1,204,975	1,271,252	0	0	0	0	0	0	0	0	0	3,789,196
Others													
Town of Alvinston:	6,170	5,675	6,309	0	0	0	0	0	0	0	0	0	18,154
Town of Petrolia:	0	0	6,120	0	0	0	0	0	0	0	0	0	6,120
Chatham-Kent:	0	0	0	0	0	0	0	0	0	0	0	0	0
	1,319,140	1,210,650	1,283,680	0	0	0	0	0	0	0	0	0	
	1,319,140	1,210,650	1,283,680	0	0	0	0	0	0	0	0	0	3,813,470

Last Years Data 2019

LAWSS Members

City of Sarnial:	763,540	710,071	793,833	772,802	859,360	928,004	1,306,982	1,232,482	954,642	843,767	740,144	786,066	10,691,693
Point Edward:	27,627	25,262	28,086	27,709	32,081	38,498	50,463	53,100	36,311	31,273	40,091	26,845	417,348
St. Clair Township:	407,497	389,310	437,481	329,430	376,717	607,849	669,638	489,505	436,191	363,446	370,260	379,175	5,256,498
Plympton/Wyoming:	60,624	55,794	61,245	63,800	73,513	86,825	126,745	108,289	79,740	69,076	65,525	62,935	914,109
Lambton Shores:	12,193	15,213	12,491	14,747	28,233	32,872	43,978	43,586	42,789	28,509	31,238	28,078	333,927
Watford/Warwick:	29,976	28,550	30,013	31,163	35,804	35,885	41,573	41,590	34,374	33,837	29,148	30,712	402,627
	1,301,458	1,224,200	1,363,150	1,239,652	1,405,708	1,729,932	2,239,379	1,968,552	1,584,046	1,369,907	1,276,407	1,313,811	18,016,202
Others													
Town of Alvinston:	7,072	6,668	10,291	12,120	16,322	18,398	15,460	11,028	8,694	9,193	10,813	10,829	136,888
Town of Petrolia:	0	0	0	0	0	0	0	0	0	0	0	0	0
Chatham-Kent:	0	1,072	0	778	129	0	0	0	0	0	0	0	1,979
	1,308,530	1,231,940	1,373,440	1,252,550	1,422,160	1,748,330	2,254,838	1,979,580	1,592,740	1,379,100	1,287,220	1,324,640	
	1,308,530	1,231,940	1,373,440	1,252,550	1,422,160	1,748,330	2,254,838	1,979,580	1,592,740	1,379,100	1,287,220	1,324,640	18,155,069

Work Sheet Revision Date: 04-Feb-2020

LAWSS Water used by the

Lambton Area Water Supply System

1215 Fort St. Sarnia, On N7V 1M1

Phone: (519) 344-7429

Fax: (519) 344-4337

City of Sarnia

For the Month of: **March 2020**

3

Meter num	Meter Location	Read date	Last Read date	Difference	Calibration Adjustments		X	Flow
		31-Mar-20	29-Feb-20		As Found	As Left		
15	HighL High Net Flow Totalizer	1,928,466	1,928,466	0			1	0
13	HighL Low Net Flow Totalizer	195,235,390	193,951,710	1,283,680			1	1,283,680

Entering Sarnia: 1,283,680
Members Monthly % Used

Leaving Sarnia to LAWSS Members:

Village of Point Edward - Grand Total:	23,101	1.8
St. Clair Township - Grand Total:	355,870	28.0
Plympton/Wyoming - Grand Total:	57,610	4.5
Lambton Shores - Grand Total:	26,482	2.1
Village of Watford/Township of Warwick - Grand Total:	33,215	2.6

Leaving Sarnia to Others:

Town of Alvinston - Grand Total:	6,309
Town of Petrolia - Grand Total:	6,120
Chatham-Kent Area Water - Grand Total:	0

Metered Consumption: 774,972

Adjustments:

Reason for Adjustment:

City of Sarnia - Total Consumption: 774,972

Leakage rate adjustment 0% 0

City of Sarnia - Grand Total: 774,972 61.0

Overall Grand Total: 1,283,680 100.0



Mark Harris (Operations Manager)

LAWSS Water used by the

Village of Point Edward

For the Month of: March 2020

Lambton Area Water Supply System

1215 Fort St. Sarnia, On N7V 1M1

Phone:(519)344-7429

Fax: (519)344-4337

Meter num	Meter Location	Read date 31-Mar-20	Last Read date 29-Feb-20	Difference	Calibration Adjustments As FoundAs Left		X	Flow	%
CH01	Venetian Vill (Mag)	497,093	493,039	4,053			1	4,053	18.2
CH02	Ven & Exmouth (Mag)	43,583	43,221	362			1	362	1.6
CH03	Michigan & Monk (Mag)	1,111,058	1,094,488	16,570			1	16,570	74.6
CH04	Michigan & Front (Mag)	140,525	139,297	1,229			1	1,229	5.5
Metered Consumption:								22,213	100.0

Reason for Adjustment:

Adjustments:

Village of Point Edward - Total Consumption: 22,213

Leakage rate adjustment 4% 889

Village of Point Edward - Grand Total: 23,101



Mark Harris (Operations Manager)

LAWSS Water used by the

St. Clair Township

For the Month of: March 2020

Lambton Area Water Supply System

1215 Fort St. Sarnia, On N7V 1M1

Phone:(519)344-7429

Fax: (519)344-4337

Meter num	Meter Location	Read date 31-Mar-20	Last Read date 29-Feb-20	Difference	Calibration Adjustments		X	Flow	%
					As Found	As Left			
WL-O 3100	WL High Net Flow - West Lambton Plank Road (3/4)	39,133,700 3,870	38,791,516 3,830	342,184 40			1 1	342,184 40	100.0 0.0
	Back to Sarnia								
1100	LaSalle & Parkway	8,980	8,939	41			1	41	0.0
1090	LaSalle & Tashmoo	5,056	5,056	0			1	0	
								Entering St. Clair Township:	342,224 100.0
								Leaving St. Clair Township	
								Back to Sarnia:	41 0.0
								Chatham-Kent Area Water - Total Consumption:	0
								Metered Consumption:	342,183 100.0
								Adjustments:	

Reason for Adjustment:

St. Clair Township - Total Consumption:	342,183
Leakage rate adjustment 4%	13,687
St. Clair Township - Grand Total:	355,870



Mark Harris (Operations Manager)

Township of Plympton / Village of WyomingFor the Month of: **March 2020**

Meter num	Meter Location	Read date 31-Mar-20	Last Read date 29-Feb-20	Difference	Calibration Adjustments As FoundAs Left		X	Flow	%
Entering Plympton									
5001	Ch05 Low Net Flow - Maundaumin	57,809	57,809	0			1	0	
5002	Ch05 High Net Flow - Maundaumin	18,493,448	18,368,224	125,224			1	125,224	
Village of Wyoming									
8001	Wyoming	432,670	432,670	0			1	0	
8002	Wyoming	3,141	1,941	1,200			10	12,000	
Back to Sarnia									
1005	Brights Grove (Sarnia)	610	610	0			0.1	0	
1006	Brights Grove (Sarnia)	81,540	81,540	0			10	0	

Entering Plympton: 125,224**Leaving Plympton**

Village of Wyoming: 12,000

Back to Sarnia: 0

Lambton Shores - Total Consumption: 25,464

Watford/Warwick - Total Consumption: 31,938

Town of Alvinston - Total Consumption: 6,309

Town of Petrolia - Total Consumption: 6,120

Metered Consumption For Plympton: 43,394

Village of Wyoming: 12,000

Reason for Adjustment:**Adjustments:****Plympton/Wyoming - Total Consumption:** 55,394

Leakage rate adjustment 4% 2,216

Plympton/Wyoming - Grand Total: 57,610**Mark Harris (Operations Manager)**

LAWSS Water used by the

Lambton Shores

For the Month of: March 2020

Lambton Area Water Supply System

1215 Fort St. Sarnia, On N7V 1M1

Phone:(519)344-7429

Fax: (519)344-4337

Meter num	Meter Location	Read date	Last Read date	Difference	Calibration Adjustments		X	Flow	%
		31-Mar-20	29-Feb-20		As Found	As Left			
7003	Ch07 High Net Flow - Townsend	3,677,468	3,653,204	24,264			1	24,264	
7004	Ch07 Low Net Flow - Townsend	251,556	250,356	1,200			1	1,200	

Metered Consumption: 25,464

Reason for Adjustment:

Adjustments:

Lambton Shores - Total Consumption: 25,464

Leakage rate adjustment 4% 1,019

Lambton Shores - Grand Total: 26,482



Mark Harris (Operations Manager)

LAWSS Water used by the

Village of Watford/Township of Warwick

For the Month of: March 2020

Lambton Area Water Supply System
1215 Fort St. Sarnia, On N7V 1M1
 Phone: (519)344-7429
 Fax: (519)344-4337

Meter num	Meter Location	Read date 31-Mar-20	Last Read date 29-Feb-20	Difference	Calibration Adjustments As FoundAs Left		X	Flow	%	
Entering Watford/Warwick										
9001	Ch10 High Net Flow - London Line	6,806,766	6,761,066	45,700			1	45,700		
9002	Ch10 Low Net Flow - London Line	642,823	638,992	3,832		1	3,832			
9003	Ch11 High Net Flow - Confederation	1,158,694	1,148,893	9,801		1	9,801			
9004	Ch11 Low Net Flow - Confederation	53,123	54,702	-1,578		1	-1,578			
Leaving Watford/Warwick										
5013	Ch09 High Net Flow - Egremont	2,764,015	2,744,507	19,508			1	19,508		
AF	Alvin High Net Flow Totalizer	1,553,771	1,547,462	6,309			1	6,309		

<u>Entering Watford/Warwick:</u>	57,755
<u>Leaving Watford/Warwick:</u>	25,817
<u>Metered Consumption:</u>	31,938
Adjustments:	

Reason for Adjustment:

Watford/Warwick - Total Consumption:	31,938
Leakage rate adjustment 4%	1,278
<u>Village of Watford/Township of Warwick - Grand Total:</u>	<u>33,215</u>



Mark Harris (Operations Manager)

LAWSS Water used by the

Town of Alvinston

For the Month of: March 2020

Lambton Area Water Supply System

1215 Fort St. Sarnia, On N7V 1M1

Phone:(519)344-7429

Fax: (519)344-4337

Meter num	Meter Location	Read date	Last Read date	Difference	Calibration Adjustments		X	Flow	%
		31-Mar-20	29-Feb-20		As Found	As Left			
AF	Alvin High Net Flow Totalizer	1,553,771	1,547,462	6,309			1	6,309	
								<u>Metered Consumption:</u>	6,309
Reason for Adjustment:								<u>Adjustments:</u>	

Town of Alvinston - Total Consumption:	6,309
Leakage rate adjustment 0%	0
<u>Town of Alvinston - Grand Total:</u>	<u>6,309</u>



Mark Harris (Operations Manager)

LAWSS Water used by the

Town of Petrolia

For the Month of: March 2020

Lambton Area Water Supply System

1215 Fort St. Sarnia, On N7V 1M1

Phone: (519) 344-7429

Fax: (519) 344-4337

Meter num	Meter Location	Read date	Last Read date	Difference	Calibration Adjustments		X	Flow	%
		31-Mar-20	29-Feb-20		As Found	As Left			
PF	Petrolia Flows	139,669	133,549	6,120			1	6,120	

Metered Consumption: 6,120
Adjustments:

Reason for Adjustment:

Town of Petrolia - Total Consumption: 6,120
Leakage rate adjustment 0% 0
Town of Petrolia - Grand Total: 6,120



Mark Harris (Operations Manager)

LAWSS Water used by the

Chatham-Kent Area WaterFor the Month of: **March 2020**

Meter num	Meter Location	Read date	Last Read date	Difference	Calibration Adjustments		X	Flow	%
		31-Mar-20	29-Feb-20		As Found	As Left			
CKF	Chatham-Kent Flows	907	907	0			1	0	

Metered Consumption: 0**Adjustments:****Reason for Adjustment:****Chatham-Kent Area Water - Total Consumption:** 0**Leakage rate adjustment 0%** 0**Chatham-Kent Area Water - Grand Total:** 0**Mark Harris (Operations Manager)**

Report No.: 2020-04-01
Report Page: Page 1 of 3
Meeting Date: April 30, 2020
File No.:



To: Chair and Members
Lambton Area Water Supply System Joint Board of Management

From: Clinton Harper
General Manager

Subject: Information Reports (April 30, 2020)

Recommendation

That the LAWSS Joint Board of Management receive the following as information.

Items:

Current, Ongoing and Future Impact of COVID-19 at LAWSS

On March 17, 2020, the Province of Ontario declared an emergency under the Civil Protection Act due to the global pandemic, COVID-19. The following steps/initiatives have been implemented at LAWSS as a result of the emergency declaration.

1. The Operator has established a Vendor of Report (VOR) for disinfection services. The VOR will streamline disinfection of contaminated areas of a LAWSS Facility in the event that local OCWA staff are diagnosed with COVID-19.
2. The Operator has ordered a "fog" system to allow local OCWA staff to complete an area disinfection as needed. The system is similar to those used by County of Lambton EMS to disinfect equipment.
3. In an effort to reduce a possible backlog of contractual work, the Operator has shifted its focus to contractual work that can be completed under current social distancing restrictions.
4. The Operator has implemented a thorough cleaning SOP that involves cleaning the operator's workspace 4 times/day.
5. The Operator adjusted operations to more closely monitoring its PPE inventory.
6. The Operator adjusted operations to more closely monitor the availability of critical treatment chemical.
7. The Operator has increased order frequency / decreased order quantity to maximize System resiliency.

The LAWSS GM is in continual communication with the OCWA Operational Manager. Communication involves all aspects of Operations, including any changes due to the ongoing situation. In addition to the steps/initiatives listed above, the City of Sarnia assisted LAWSS by placing traffic control at the entrances to both LAWSS owned parking

Report No.: 2020-04-01
Report Page: Page 2 of 3
Meeting Date: April 30, 2020
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lots. Controls have been placed in a way that does not hinder normal or emergency access to the Water Treatment Plant.

To help stop the spread of COVID-19, the Ontario government extended the Declaration of Emergency to May 12, 2020. The extension will enable the government to continue protecting the health and safety of the people in Ontario.

Emergency status is updated regularly by the Province at the link below.

<https://www.ontario.ca/page/emergency-information>

All Capital and Major Maintenance projects at LAWSS have been on hold since March 17th to minimize the Operator's exposure. Beginning on May 1, 2020, LAWSS will be implementing a 2-phase approach to moving forward with what is considered essential Capital and Major Maintenance Projects.

Phase 1- Protect and Minimize the risk to the operator.

LAWSS and OCWA staff will complete a project specific review, from the precept of Operator isolation, to determine if a project can be completed with an acceptable amount of risk of exposure to the Operator.

Phase 2 – Control Staging and Implementation.

If the amount of risk is acceptable, a project specific plan for control staging and implementation will be developed. Contractors entering the site will be required to acknowledge the requirements of the Plan prior to arrival on site.

For example, if a pre-bid site meeting for a capital project is needed, the bidders will be restricted to the proposed work area and not the entire facility. A 2m separation would be required at all times, and a limit of 5 people (including the tour facilitator) at a time. Special access will be provided and the timing will be arranged to not coincide with standard rounds of the Operator.

List of Current Projects on hold:

- Main Plant HVAC (Engineering)
- Supervisory Control Data Acquisition Master Plan (Engineering)
- 5kV Motor Control Group A&B (Engineering)
- LAWSS Communication Project

LAWSS Compliance Coordinator

On March 17, 2020 the LAWSS Compliance Coordinator position went live at the County of Lambton as well as various job opportunity websites, including Municipal World and Ontario Municipal Jobs. By the closing on April 6th we had received 36 responses. Of the

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36 responses, 4 were selected for interview. The interview process is being postponed until further notice due to the current challenges interviewing candidates in person.

LAWSS Financial Audit

The 2019 LAWSS Financial Audit is currently underway and on schedule. Presentation of the Audit is scheduled for the regular meeting in May.

WLPS Special Valve Project

At staff's recommendation, the LAWSS Board awarded project development, tendering and management to OCWA engineering group. A PO for \$25,600+taxes was issued on February 28, 2020 as quoted. OCWA reports they are nearing the end of the initial development stage at this time.

Watermain Condition Assessment Approach and Prioritization

At staff's recommendation, the LAWSS Board hired OCWA Engineering Group to complete a Watermain Condition Assessment Approach and Prioritization Report. A PO for \$30,200+taxes was issued on February 28, 2020 as quoted. OCWA reports that a draft of the Technology review, the first stage of the project, will be submitted to LAWSS within the week.

This report was prepared by Clinton Harper, LAWSS General Manager

Attachment(s):

Report No.:	2020-04-02
Report Page:	Page 1 of 2
Meeting Date:	April 30, 2020
File No.:	



To: Chair and Members
Lambton Area Water Supply System Joint Board of Management

From: Clinton Harper
General Manager

Subject: Municipal Drinking Water Licence Renewal - Financial Plan

Recommendation

It is recommended that the LAWSS Board:

1. Approve the LAWSS Financial Plan prepared by Watson & Associates Economists Ltd. dated March 17, 2020.
2. Provide notice that the Financial Plan be advertised.
3. Submit the approved Financial Plan dated March 17, 2020 to the Ministry of Municipal Affairs and Housing. (O. Reg. 453/07, section 3 (1) 6).
4. Submit the approved Financial Plan and the Board resolution approving the Financial Plan to the Ministry of the Environment, Conservation and Parks, satisfying the requirements under the Safe Drinking Water Act. (S.D.W.A. section 32 (5) 2.ii.).

Background:

On December 4, 2019, staff received a notice from the Ministry of the Environment Conservation and Parks (MECP) Re: Municipal Drinking Water Renewal. LAWSS was required to apply for renewal for their Municipal Drinking Water Licence by April 13, 2020. The notice is attached to this report.

While the bulk of the renewal documentation was prepared by OCWA on LAWSS behalf, a copy of a Board approved financial plan must be submitted with the application. The financial plan must meet the requirements of O. Reg. 453/07 and must apply for a period of at least six years that includes the year that our current licence would expire. This requirement is 2 years beyond the existing LAWSS Financial Plan.

A detailed LAWSS Financial Plan Update is scheduled for 2022 and will require a significant amount of Board approved time and financial investment to complete. The Master Water Plan and the Asset Management Plan will be critical components of the detailed Financial Plan. In the interim, a Financial Plan Update will allow LAWSS to move forward with the Municipal Drinking Water Licence Renewal.

Report No.:	2020-04-02
Report Page:	Page 2 of 2
Meeting Date:	April 30, 2020
File No.:	



At the recommendation of staff, in February 2020, the LAWSS Board hired Watson and Associates to complete a Financial Plan Update to satisfy Ministry of Environment Conservation and Parks requirements for a drinking water license renewal.

Comments:

On March 17, 2020, a finalized Financial Plan Update was provided to LAWSS staff for review. The recommendation from the report are as follows:

1. The Lambton Area Water Supply System Water Financial Plan prepared by Watson & Associates Economists Ltd. dated March 17, 2020 be approved.
2. Notice of availability of the Financial Plan be advertised.
3. The Financial Plan dated March 17, 2020 be submitted to the Ministry of Municipal Affairs and Housing. (O. Reg. 453/07, section 3 (1) 6).
4. The Financial Plan and the Board resolution approving the Financial Plan be submitted to the Ministry of the Environment, Conservation and Parks, satisfying the requirements under the Safe Drinking Water Act. (S.D.W.A. section 32 (5) 2.ii.).

When the March 26, 2020 meeting of the LAWSS Board was canceled due to the COVID-19 situation, LAWSS staff contacted the MECP and advised them of the situation. At their direction the LAWSS renewal application was submitted with a letter indicating that an approved Financial Plan would be submitted as soon as possible.

Due to the situation with COVID-19, and the Board's inability to meet in March, LAWSS was not able to include a Board approved Financial Plan with the application by the April 13, 2020 deadline. Instead a letter detailing the situation was provided. The MECP responded positively to the letter and requested that a Board approved Financial Plan be submitted at its earliest convenience.

Consultation:

OCWA Operational staff were consulted in the development of this report.

Financial Implications:

There is no cost to submit a Municipal Drinking Water Licence Renewal Application to the Province of Ontario.

This report was prepared by Clinton Harper, General Manager

Attachment(s): Water Ontario Regulation 453/07 Financial Plan Lambton Area Water Supply System



Water Ontario Regulation 453/07 Financial Plan

Lambton Area Water Supply System

Financial Plan # 020-301

March 17, 2020

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Watson & Associates Economists Ltd.
905-272-3600
info@watsonecon.ca

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List of Acronyms and Abbreviations

Acronym	Full Description of Acronym
MECP	Ministry of the Environment, Conservation and Parks
MMAH	Ministry of Municipal Affairs and Housing
O. Reg.	Ontario Regulation
PSAB	Public Sector Accounting Board
LAWSS	Lambton Area Water Supply System
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

The Lambton Area Water Supply System (LAWSS) retained Watson & Associates Economists Ltd. (Watson) 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 objective of the report provided herein is to convert the Board's 2020 water budget and five-year forecast into the prescribed reporting requirements for a financial plan as defined by Ontario Regulation 453/07 (O. Reg. 453/07).

1.2 Background

The Safe Drinking Water Act (S.D.W.A.), "the Act," was passed in December 2002 in order to address the recommendations made by the Walkerton Inquiry Part II report. Note that S.D.W.A. has been amended several times since 2002. 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 municipality 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 municipal 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 system. 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;
- Financial plan is to be submitted to the Ministry of Municipal Affairs and Housing; and
- The resolution of Council (or governing body) approving the Financial Plan be submitted to the Ministry of the Environment, Conservation and Parks (MECP).

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 plan 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, 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 (PSAB) 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 LAWSS's Financial Plan

LAWSS is currently in the process of renewing the drinking water licence 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. Therefore, the financial plan provides for a six-year forecast period 2020 to 2025.



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 Act requires a declaration of the financial plan's sustainability, it does not give a clear definition of what would be considered sustainable. Instead, MECP released a guideline ("Towards Financially Sustainable Drinking-Water and Wastewater Systems") that provides possible approaches to achieving 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 storm water 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: 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 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 *Water Opportunities Act*.

The purposes of the *Water Opportunities Act* 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 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 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 municipality 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 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. 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 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;
- 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, LAWSS will need to consider the impacts during the annual budget and forecast process.

2.5 Water Forecast

The Board has already completed extensive financial planning through its 2020 water budget and forecasting exercise. The budget process is designed to address "full cost" principles and reflect the guiding principles toward sustainable financial planning. As a result of employing this process, the 2020 water budget and forecast provides the basis for a sound financial plan for the 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;
- A review and recommendation on rates that ensure revenues are equitable and sufficient to meet system needs; and
- A public process that involves consultation with the main stakeholders including LAWSS's staff, the Board, 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 system.



Chapter 3

Approach



3. Approach

3.1 Overview

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 plans 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 water financial plan.

3.2 Conversion Process

The conversion from the existing modified cash basis found in the 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 LAWSS 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 Forecast. These estimates, however, only represent future assets that LAWSS anticipates purchasing or constructing without consideration for future assets that are contributed by developers and other parties (at no or partial cost to LAWSS). 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 systems, in order to convert from the cash to full accrual basis (see Figure 3-1). 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
Lambton Area Water Supply System
Conversion Adjustments
Statement of Operations (Water)

Modified Cash Basis	Budget 2020	Adjustments		Full Accrual Budget 2020	Accrual Basis
		DR	CR		
Revenues					Revenues
Rate Based Revenue	9,964,621			9,964,621	Rate Based Revenue
Other Revenue	6,670,000		147,668	6,817,668	Other Revenue
Total Revenues	16,634,621			16,782,289	Total Revenues
Expenditures					Expenses
Operating	5,331,239	1,458,000		6,789,239	Operating Expenses
Capital					
Transfers to Reserves	3,084,382		3,084,382		
Transfers to Capital	8,219,000		8,219,000		
Debt Repayment (Principal & Interest)	-		-	-	Interest on Debt
		1,572,147		1,572,147	Amortization
Total Expenditures	16,634,621			8,361,386	Total Expenses
Net Expenditures	(0)			8,420,903	Annual Surplus/(Deficit)
Increase (decrease) in amounts to be recovered	-			85,185,955	Accumulated Surplus/(Deficit), beginning of year
Change in Fund Balances	-	8,420,903	-	93,606,858	Accumulated Surplus/(Deficit), end of year
TOTAL ADJUSTMENTS		11,451,050	11,451,050		

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.

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

The Statement of Cash Flow summarizes how LAWSS 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
Lambton Area Water Supply System
Conversion Adjustments
Statement of Financial Position (Water)

Modified Cash Basis	Budget	Adjustments		Full Accrual Budget	Accrual Basis
	2020	DR	CR	2020	
ASSETS					ASSETS
Financial Assets					Financial Assets
Cash	(996,028)			7,222,972	Cash
Accounts Receivable	920,012			920,012	Accounts Receivable
Total Financial Assets	(76,016)			8,142,984	Total Financial Assets
Non-Financial Assets					
Inventory of Supplies	-		-		
Prepaid Expenses	-		-		
Total Non-Financial Assets	-				
LIABILITIES					LIABILITIES
Accounts Payable & Accrued Liabilities	611,934			611,934	Accounts Payable & Accrued Liabilities
Gross Long-term Liabilities	-			-	Debt (Principal only)
Deferred Revenue	-			-	Deferred Revenue
Other	-			-	Other
Total Liabilities	611,934			611,934	Total Liabilities
Net Assets/(Debt)	(687,950)			7,531,050	Net Financial Assets/(Debt)
		87,533,808	1,458,000	86,075,808	Non-Financial Assets
		-		-	Tangible Capital Assets
		-		-	Inventory of Supplies
				-	Prepaid Expenses
				86,075,808	Total Non-Financial Assets
Municipal Position					
Water Reserves	7,531,050	7,531,050	-		
Gas Tax Reserve Fund	-	-	-		
Development Charge Reserve Fund	-	-	-		
Amounts to be Recovered	-	-	-		
Total Municipal Position	7,531,050		93,606,858	93,606,858	Accumulated Surplus/(Deficit), end of year
TOTAL ADJUSTMENTS		95,064,858	95,064,858		

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 LAWSS 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 LAWSS's ledgers. It may not be possible, however, 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 LAWSS’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 LAWSS’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 revenues previously deferred (i.e. development charge revenues) and/or accrued revenues (developer contributions), and/or other minor miscellaneous revenues.



Chapter 4

Financial Plan



4. Financial Plan

4.1 Introduction

The following tables provide the complete financial plan for the LAWSS'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 LAWSS's water system. It is not an audited document¹ and it contains various estimates as detailed in the "Notes to the Financial Plan" section below.

4.2 Water Financial Plan

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 LAWSS'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 in 2020, the water system will be in a net financial asset position of approximately as in a net debt position of approximately \$7.33 million. For the balance of the forecast, 2021-2025, the financial plan forecasts a continuing net financial asset position.

Another important indicator on the Statement of Financial Position is the tangible capital asset balance under section PS3150. 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 watermain and treatment facilities are imperative to water service delivery.

¹ O. Reg. 453/07 does not require an audited financial plan.



- 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 municipality 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 net book value is expected to increase over the forecast period by approximately \$11.88 million. This indicates that LAWSS has plans to invest in tangible capital assets in excess of the anticipated use of existing 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, generally increasing over the forecast period from 50% in 2020 to 71% by 2025. As a result, annual surplus decreases from a surplus of \$8.42 million to \$3.18 million by 2025. It is important to note that an annual surplus is beneficial to ensure funding is available to non-expense costs such as tangible capital asset acquisitions and reserve/reserve fund transfers.

Another important indicator on this statement is accumulated surplus/deficit. An accumulated surplus indicates that the available net resources are sufficient to provide future capital 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 \$25 million to a 2020 accumulated surplus of \$85.19 million over the forecast period. This accumulated surplus, as indicated in Table 4-2, is predominantly



made up of reserve and reserve fund 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 the forecasted annual surplus exceeds forecasted tangible capital asset acquisitions (net of amortization for the year) for most years of the forecast period, resulting in increases to net financial assets over the forecast period. This allows for a long-term plan of funding capital through accumulated surplus (i.e. reserves and reserve funds). This is evidenced by the ratio of cumulative annual surplus before amortization to cumulative tangible capital asset acquisitions maintaining a value in excess of 1.00 (decreasing from 1.48 to 1.29 over the forecast period).¹

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-based 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 build internal reserves and reserve funds over the forecast period. The financial plan projects the cash position of LAWSS's water systems to improve from a balance of \$4.3 million at the beginning of 2020, to just over \$12.35 million by the end of 2025. For further discussions, on projected cash balances please refer to the Notes to the Financial Plan.

¹ A desirable ratio is 1:1 or better.



Table 4-1
Lambton Area Water Supply System
Statement of Financial Position: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2025

	Notes	Forecast					
		2020	2021	2022	2023	2024	2025
Financial Assets							
Cash	1	7,222,972	4,752,394	1,763,222	6,098,056	7,353,408	12,352,676
Accounts Receivable	1	920,012	577,140	594,151	594,151	594,151	594,151
Total Financial Assets		8,142,984	5,329,534	2,357,373	6,692,207	7,947,559	12,946,827
Liabilities							
Bank Indebtedness		-	-	-	-	-	-
Accounts Payable & Accrued Liabilities	1	611,934	623,305	634,898	646,721	658,784	671,078
Debt (Principal only)	2	-	-	-	-	-	-
Deferred Revenue	3	-	-	-	-	-	-
Total Liabilities		611,934	623,305	634,898	646,721	658,784	671,078
Net Financial Assets/(Debt)		7,531,050	4,706,229	1,722,475	6,045,486	7,288,775	12,275,749
Non-Financial Assets							
Tangible Capital Assets	4	86,075,808	92,306,236	98,685,396	97,734,216	99,767,140	97,960,224
Total Non-Financial Assets		86,075,808	92,306,236	98,685,396	97,734,216	99,767,140	97,960,224
Accumulated Surplus/(Deficit)	5	93,606,858	97,012,465	100,407,871	103,779,702	107,055,915	110,235,973

Financial Indicators	Total Change	2020	2021	2022	2023	2024	2025
1) Increase/(Decrease) in Net Financial Assets	7,976,749	3,232,050	(2,824,821)	(2,983,754)	4,323,011	1,243,289	4,986,974
2) Increase/(Decrease) in Tangible Capital Assets	17,073,269	5,188,853	6,230,428	6,379,160	(951,180)	2,032,924	(1,806,916)
3) Increase/(Decrease) in Accumulated Surplus	25,050,018	8,420,903	3,405,607	3,395,406	3,371,831	3,276,213	3,180,058



Table 4-2
Lambton Area Water Supply System
Statement of Operations: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2025

	Notes	Forecast					
		2020	2021	2022	2023	2024	2025
Water Revenue							
Base Charge Revenue		-	-	-	-	-	-
Rate Based Revenue		9,964,621	10,263,200	10,570,772	10,570,772	10,570,772	10,570,772
Earned Development Charges Revenue	3	-	-	-	-	-	-
Other Revenue	6	6,817,668	264,279	205,774	290,539	314,917	412,702
Total Revenues		16,782,289	10,527,479	10,776,546	10,861,311	10,885,689	10,983,474
Water Expenses							
Operating Expenses	Sch. 4-1	6,789,239	5,583,300	5,687,300	5,634,300	5,739,400	5,863,500
Interest on Debt	2	-	-	-	-	-	-
Amortization	4	1,572,147	1,538,572	1,693,840	1,855,180	1,870,076	1,939,916
Loss on Disposal of Tangible Capital Assets		-	-	-	-	-	-
Total Expenses		8,361,386	7,121,872	7,381,140	7,489,480	7,609,476	7,803,416
Annual Surplus/(Deficit)		8,420,903	3,405,607	3,395,406	3,371,831	3,276,213	3,180,058
Accumulated Surplus/(Deficit), beginning of year	5	85,185,955	93,606,858	97,012,465	100,407,871	103,779,702	107,055,915
Accumulated Surplus/(Deficit), end of year		93,606,858	97,012,465	100,407,871	103,779,702	107,055,915	110,235,973
Note 5:							
Accumulated Surplus/(Deficit) Reconciliation:		2020	2021	2022	2023	2024	2025
Reserve Balances							
Reserves: Development Charges		-	-	-	-	-	-
Reserves: Gas Tax		-	-	-	-	-	-
Reserves: Capital/Other		7,531,050	4,706,229	1,722,475	6,045,486	7,288,775	12,275,749
Total Reserves Balance		7,531,050	4,706,229	1,722,475	6,045,486	7,288,775	12,275,749
Less: Debt Obligations and Deferred Revenue		-	-	-	-	-	-
Add: Tangible Capital Assets	4	86,075,808	92,306,236	98,685,396	97,734,216	99,767,140	97,960,224
Total Ending Balance		93,606,858	97,012,465	100,407,871	103,779,702	107,055,915	110,235,973
Financial Indicators	Total Change	2020	2021	2022	2023	2024	2025
1) Expense to Revenue Ratio		50%	68%	68%	69%	70%	71%
2) Increase/(Decrease) in Accumulated Surplus	25,050,018	8,420,903	3,405,607	3,395,406	3,371,831	3,276,213	3,180,058



Schedule 4-1
Lambton Area Water Supply System
Statement of Operating Expenses: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2025

	Notes	Forecast					
		2020	2021	2022	2023	2024	2025
Operating Expenses							
Administration, Operations & Maintenance Contract (OCWA)		4,353,239	4,440,300	4,529,100	4,619,700	4,712,100	4,806,300
Emergency Repairs		200,000	200,000	200,000	200,000	200,000	200,000
Annual Maintenance Plan		30,000	30,000	30,000	30,000	30,000	30,000
General and Administrative Expense		348,000	355,000	362,100	369,300	376,700	384,200
Staff Salary and Benefits		250,000	255,000	260,100	265,300	270,600	276,000
Schedule G Reconciliation Estimate		150,000	150,000	150,000	150,000	150,000	150,000
Non TCA - Expenses from Capital Budget	7	1,458,000	153,000	156,000	-	-	17,000
TOTAL OPERATING EXPENSES		6,789,239	5,583,300	5,687,300	5,634,300	5,739,400	5,863,500



Table 4-3
Lambton Area Water Supply System
Statement of Changes in Net Financial Assets/Debt: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2025

	Notes	Forecast					
		2020	2021	2022	2023	2024	2025
Annual Surplus/(Deficit)		8,420,903	3,405,607	3,395,406	3,371,831	3,276,213	3,180,058
Less: Acquisition of Tangible Capital Assets	4	(6,761,000)	(7,769,000)	(8,073,000)	(904,000)	(3,903,000)	(133,000)
Add: Amortization of Tangible Capital Assets	4	1,572,147	1,538,572	1,693,840	1,855,180	1,870,076	1,939,916
(Gain)/Loss on disposal of Tangible Capital Assets		-	-	-	-	-	-
Add: Proceeds on Sale of Tangible Capital Assets		-	-	-	-	-	-
Add: Write-downs of Tangible Capital Assets		-	-	-	-	-	-
		(5,188,853)	(6,230,428)	(6,379,160)	951,180	(2,032,924)	1,806,916
Less: Acquisition of Supplies Inventory		-	-	-	-	-	-
Less: Acquisition of Prepaid Expenses		-	-	-	-	-	-
Add: Consumption of Supplies Inventory		-	-	-	-	-	-
Add: Use of Prepaid Expenses		-	-	-	-	-	-
		-	-	-	-	-	-
Increase/(Decrease) in Net Financial Assets/(Net Debt)		3,232,050	(2,824,821)	(2,983,754)	4,323,011	1,243,289	4,986,974
Net Financial Assets/(Net Debt), beginning of year		4,299,000	7,531,050	4,706,229	1,722,475	6,045,486	7,288,775
Net Financial Assets/(Net Debt), end of year		7,531,050	4,706,229	1,722,475	6,045,486	7,288,775	12,275,749

Financial Indicators	2020	2021	2022	2023	2024	2025
1) Acquisition of Tangible Capital Assets (Cumulative)	6,761,000	14,530,000	22,603,000	23,507,000	27,410,000	27,543,000
2) Annual Surplus/Deficit before Amortization (Cumulative)	9,993,050	14,937,229	20,026,475	25,253,486	30,399,775	35,519,749
3) Ratio of Annual Surplus before Amortization to Acquisition of TCA's (Cumulative)	1.48	1.03	0.89	1.07	1.11	1.29



Table 4-4
Lambton Area Water Supply System
Statement of Cash Flow – Indirect Method: Water Services
UNAUDITED: For Financial Planning Purposes Only
20120-2025

	Notes	Forecast					
		2020	2021	2022	2023	2024	2025
Operating Transactions							
Annual Surplus/Deficit		8,420,903	3,405,607	3,395,406	3,371,831	3,276,213	3,180,058
Add: Amortization of TCA's	4	1,572,147	1,538,572	1,693,840	1,855,180	1,870,076	1,939,916
(Gain)/Loss on disposal of Tangible Capital Assets		-	-	-	-	-	-
Less: Earned Deferred Revenue	3	-	-	-	-	-	-
Less: Developer Contributions		-	-	-	-	-	-
Add: Deferred Revenue Proceeds		-	-	-	-	-	-
Change in A/R (Increase)/Decrease		(920,012)	342,872	(17,011)	-	-	-
Change in A/P Increase/(Decrease)		611,934	11,371	11,593	11,823	12,063	12,294
Less: Interest Proceeds		(147,668)	(92,279)	(33,774)	(118,539)	(142,917)	(240,701)
Cash Provided by Operating Transactions		9,537,304	5,206,143	5,050,054	5,120,295	5,015,435	4,891,567
Capital Transactions							
Proceeds on sale of Tangible Capital Assets		-	-	-	-	-	-
Less: Cash Used to acquire Tangible Capital Assets	4	(6,761,000)	(7,769,000)	(8,073,000)	(904,000)	(3,903,000)	(133,000)
Cash Applied to Capital Transactions		(6,761,000)	(7,769,000)	(8,073,000)	(904,000)	(3,903,000)	(133,000)
Investing Transactions							
Proceeds from Investments		147,668	92,279	33,774	118,539	142,917	240,701
Less: Cash Used to Acquire Investments		-	-	-	-	-	-
Cash Provided by (applied to) Investing Transactions		147,668	92,279	33,774	118,539	142,917	240,701
Financing Transactions							
Proceeds from Debt Issue	2	-	-	-	-	-	-
Less: Debt Repayment (Principal only)	2	-	-	-	-	-	-
Cash Applied to Financing Transactions		-	-	-	-	-	-
Increase in Cash and Cash Equivalents		2,923,972	(2,470,578)	(2,989,172)	4,334,834	1,255,352	4,999,268
Cash and Cash Equivalents, beginning of year	1	4,299,000	7,222,972	4,752,394	1,763,222	6,098,056	7,353,408
Cash and Cash Equivalents, end of year	1	7,222,972	4,752,394	1,763,222	6,098,056	7,353,408	12,352,676



Notes to Financial Plan

The financial plan format as outlined in Chapter 4 closely approximates the full accrual format used by municipalities 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 LAWSS, some of the items listed above have been estimated given that LAWSS 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 LAWSS, 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 receivables as a percentage of annual water revenue earned as per the actuals reported for 2016, 2017, and 2018 in the audited financial statements; and
- b) Payables: Based on historical levels of water payables as a percentage of annual water expenses as per the actuals reported for 2016, 2017, and 2018 in the audited financial statements.

2. Debt

There are no outstanding debt obligations currently, nor is there new debt assumed over the forecast period.

3. Deferred Revenue

Deferred revenue is typically made up of water development charge reserve balances which are considered a liability for financial reporting purposes until the funds are used to emplace the works for which they have been collected.

LAWSS does not collect water development charges, therefore deferred revenue is assumed to be zero over the forecast period.



4. Tangible Capital Assets

- Opening net book value of tangible capital assets includes water related assets in the following categories:
 - i. Infrastructure within LAWSS's system (watermains, hydrants, and hydrant leads);
 - ii. Land and Land improvements;
 - iii. Equipment; and
 - iv. Facilities
- Amortization is calculated based on using the straight-line approach with no amortization in the year of acquisition or construction.
- Given the planned asset replacement forecast in the water forecast, useful life on acquisitions is assumed to be equal to the weighted average useful life for all assets on hand in each respective asset category.
- Write-offs are assumed to equal \$0 for each year in the forecast period.
- Tangible capital assets are shown on a net basis. It is assumed that disposals occur when the asset is being replaced. To calculate the value of each existing asset disposal, the replacement value (of each new asset that has been identified as a "replacement") has been deflated (by weighted average useful life for all assets on hand in the respective asset category) to an estimated historical cost. Future assets are disposed of when fully amortized.
- Gains/losses on disposal are assumed to be \$0 (it is assumed that historical cost is equal to accumulated amortization for all disposals).
- Residual value is assumed to be \$0 for all assets contained within the forecast period.
- Contributed Assets, as described in section 3.2.1, are deemed to be insignificant/unknown during the forecast period and are therefore assumed to be \$0.
- There is no known issue with lead pipes in the LAWSS distribution/transmission network. Based on sampling, an issue with lead pipes may be present in the City of Sarnia distribution subsystem. The City is currently working to satisfy requirements set out and established with the MECP beginning back in 2018.



- The balance of tangible capital assets is summarized as follows:

Asset Historical Cost	2020	2021	2022	2023	2024	2025
Opening Tangible Capital Asset Balance	131,273,758	137,323,939	144,200,355	151,253,348	152,048,773	155,313,848
Acquisitions	6,761,000	7,769,000	8,073,000	904,000	3,903,000	133,000
Disposals	710,819	892,584	1,020,007	108,575	637,925	-
Closing Tangible Capital Asset Balance	137,323,939	144,200,355	151,253,348	152,048,773	155,313,848	155,446,848
Opening Accumulated Amortization	50,386,803	51,248,131	51,894,119	52,567,952	54,314,557	55,546,708
Amortization Expense	1,572,147	1,538,572	1,693,840	1,855,180	1,870,076	1,939,916
Amortization on Disposal	710,819	892,584	1,020,007	108,575	637,925	-
Ending Accumulated Amortization	51,248,131	51,894,119	52,567,952	54,314,557	55,546,708	57,486,624
Net Book Value	86,075,808	92,306,236	98,685,396	97,734,216	99,767,140	97,960,224



5. Accumulated Surplus

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

Water	2020 Opening Accumulated Surplus
Reserve Balances	
Reserves: Capital/Other	4,299,000
Total Reserves Balance	4,299,000
Add: Tangible Capital Assets	80,886,955
Total Opening Balance	85,185,955

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

6. Other Revenue

Other revenues include interest from rental fees, sale of water, and carry over revenue from previous budgets for unspent capital. The interest from rental fees has been inflated by 2% per annum over the forecast period where the revenue from the sale of water has been held constant. The carryover revenue related to unspent capital only appears in the first year, 2020, and is assumed to be fully used in 2020 to complete the capital infrastructure outstanding.

7. Operating Expenses

Capital expenditures for items not meeting the definition of tangible capital assets have been reclassified as operating expenses and have been expensed in the year in which they occur.



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 the municipality 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 plan will be made available to the public upon request and without charge. The plan must also be made available to the public on the board'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



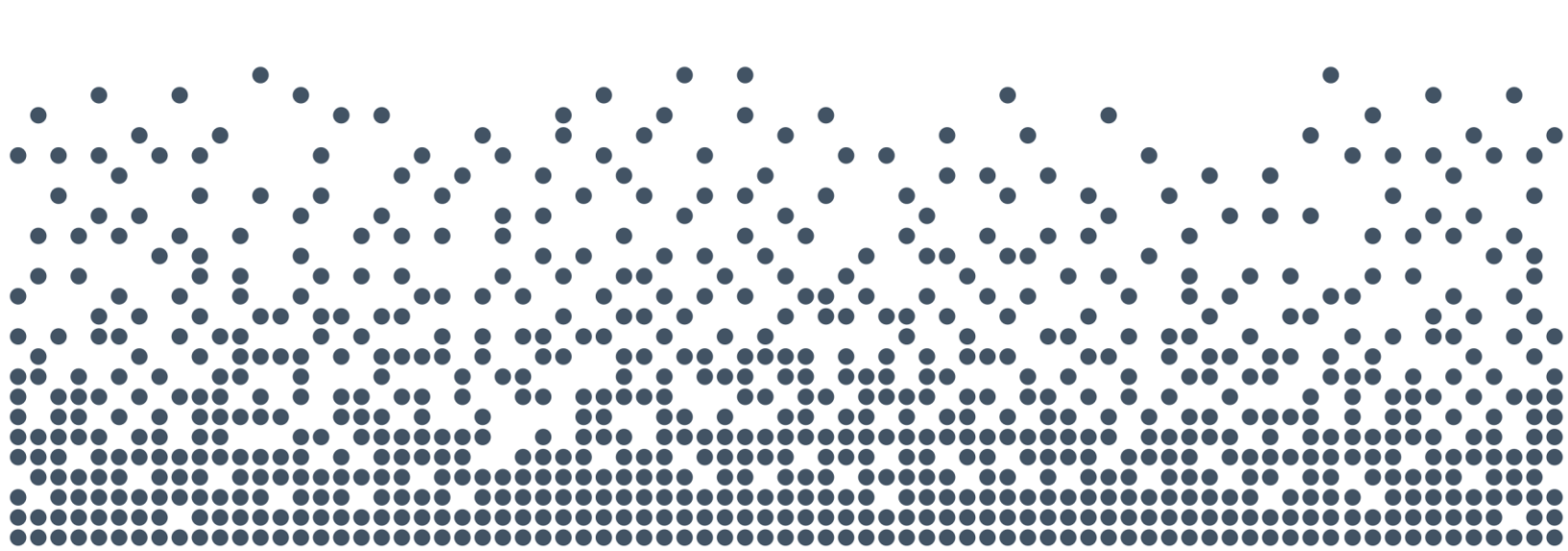
6. Recommendations

This report presents the water financial plan for the Lambton Area Water Supply System 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 the Board's interest and approval however, for decision making purposes, it may be more informative to rely on the information contained within the water budget and forecast. Nevertheless, Board is required to pass certain resolutions regarding this plan and the regulations, and it is recommended that:

1. The Lambton Area Water Supply System Water Financial Plan prepared by Watson & Associates Economists Ltd. dated March 17, 2020 be approved.
2. Notice of availability of the Financial Plan be advertised.
3. The Financial Plan dated March 17, 2020 be submitted to the Ministry of Municipal Affairs and Housing. (O. Reg. 453/07, section 3 (1) 6).
4. The Financial Plan and the Board resolution approving the Financial Plan be submitted to the Ministry of the Environment, Conservation and Parks, satisfying the requirements under the Safe Drinking Water Act. (S.D.W.A. section 32 (5) 2.ii.).



Appendices



Appendix A

Water Forecast Summary Tables



Appendix A-1
Lambton Area Water Supply System
Capital Budget Forecast (Inflated)
2020-2025

Description	Budget 2020	Total	Forecast				
			2021	2022	2023	2024	2025
Capital Expenditures							
Major Maintenance:							
Filter Core Sampling	15,000	17,000	-	-	-	-	17,000
VFD Flocc Mixers	45,000	-	-	-	-	-	-
Replace 7 Chlorine On-Line Analyzers	20,000	15,000	15,000	-	-	-	-
Chemical Feed Pumps (3)	16,000	-	-	-	-	-	-
Gearbox Refurb at Floc Tanks 2/yr	42,000	44,000	44,000	-	-	-	-
Lab pH meter replacement	2,500	-	-	-	-	-	-
Sluice gate inspection & Maintenance	-	15,000	15,000	-	-	-	-
Vibration Monitoring Program	1,500	10,000	2,000	2,000	2,000	2,000	2,000
Security Camera Upgrades	-	46,000	46,000	-	-	-	-
Person Down Alarm Monitor 3rd party	-	5,000	5,000	-	-	-	-
3rd party electrical inspection	-	65,000	18,000	-	19,000	-	28,000
Valve gate isolation(3) 10 inch	25,000	-	-	-	-	-	-
Low Lift Wet Well Cleanout	15,000	80,000	15,000	16,000	16,000	16,000	17,000
EQ Tank Cleanout Inspection	-	24,000	-	-	-	-	24,000
Electrical Inspection-3rd party contractor	-	32,000	10,000	-	11,000	-	11,000
Motor HLP-2 (VFD Compliant)	-	26,000	26,000	-	-	-	-
Crack Injection (West Wall)	5,000	-	-	-	-	-	-
Valve Discharge P1 Refurbish	25,000	-	-	-	-	-	-
Electrical Inspection-3rd party contractor	-	16,000	5,000	-	5,000	-	6,000
Actuator Inlet Valve (electronic)	-	15,000	-	-	-	15,000	-
Hydrant Installation- 6622 London Line	20,000	62,000	20,000	21,000	21,000	-	-
Chamber (flow) abandonment	20,000	62,000	20,000	21,000	21,000	-	-
Air Relief valve- 5867 Confederation Line	15,000	-	-	-	-	-	-
Hydrant Isolation valve repairs x (3) (gland bolts)	15,000	2,000	2,000	-	-	-	-
Concrete Pipe end closures and 20' lengths	-	80,000	15,000	16,000	16,000	16,000	17,000
Repair Clamps & Appurtenances	10,000	53,000	10,000	10,000	11,000	11,000	11,000
Lifecycle:	-	-	-	-	-	-	-
Electrical Upgrade (Reliability Study)	-	1,730,000	710,000	704,000	299,000	17,000	-
Main Plant HVAC Rehab	-	753,000	753,000	-	-	-	-
PLC conversion/upgrade construction	150,000	-	-	-	-	-	-
Lighting/Barrier North walkway (outdoors)	-	204,000	204,000	-	-	-	-



Appendix A-1 (Continued)
Lambton Area Water Supply System
Capital Budget Forecast (Inflated)
2020-2025

Description	Budget 2020	Total	Forecast				
			2021	2022	2023	2024	2025
Capital Expenditures							
Inlet Water Screens	-	396,000	-	-	196,000	200,000	-
Pump Upgrade Demand forecast	-	379,000	-	-	-	379,000	-
Storage Tank (South) Rehabilitation	-	5,712,000	5,712,000	-	-	-	-
Storage Tank (North) Rehabilitation	-	5,826,000	-	5,826,000	-	-	-
Field Gate 4 G network upgrade	75,000	-	-	-	-	-	-
Indian Road Water Tower Rehabilitation	-	3,656,000	122,000	-	287,000	3,247,000	-
Port Lambton Tower refurbish	-	1,457,000	-	1,457,000	-	-	-
WTP- Travelling Water Screen Assessment	12,000	-	-	-	-	-	-
Generator Replacement Project	4,000,000	-	-	-	-	-	-
Main Plant Switch Gear	1,500,000	-	-	-	-	-	-
PLC Upgrade Project	150,000	-	-	-	-	-	-
36" Ross Valve	70,000	-	-	-	-	-	-
Radio PLC Upgrade Project	512,000	-	-	-	-	-	-
Studies:	-	-	-	-	-	-	-
Electrical Upgrade (Reliability Study)	90,000	-	-	-	-	-	-
WTP Main Plant HVAC Repair (Engineering Design)	111,000	-	-	-	-	-	-
Storage Tank (South) Rehabilitation (Engineering Design)	60,000	-	-	-	-	-	-
Storage Tank (North) Rehabilitation (Engineering Design)	60,000	-	-	-	-	-	-
Indian Road WT Rehabilitation (Engineering Design)	30,000	-	-	-	-	-	-
Condition Assessment - Port Lambton SP & Watford SP	30,000	-	-	-	-	-	-
Twinning & Grid-Municipal Class EA (Addendum)	105,000	-	-	-	-	-	-
Watermain Condition Assessment	35,000	-	-	-	-	-	-
Corrosion Control Member Municipality Impact Study	113,000	-	-	-	-	-	-
System - Master Plan	250,000	-	-	-	-	-	-
Loop Study (including OCWA's time)	300,000	-	-	-	-	-	-
System - Asset Management Plan	-	153,000	153,000	-	-	-	-
System - Financial Plan	-	156,000	-	156,000	-	-	-
System - Energy Efficient Lighting grant program	2,000	-	-	-	-	-	-
System - Power factor study WTP)	2,000	-	-	-	-	-	-
System - Pump Upgrades for forecasted demand growth	2,000	-	-	-	-	-	-
WTP - Backwash Pump softstart or VFD conversion	2,000	-	-	-	-	-	-
WTP - Filter Core sampling	-	17,000	-	-	-	-	17,000



Appendix A-1 (Continued)
Lambton Area Water Supply System
Capital Budget Forecast (Inflated)
2020-2025

Description	Budget 2020	Total	Forecast				
			2021	2022	2023	2024	2025
Capital Expenditures							
Main Plant Switch Gear (Engineering)	116,000	-	-	-	-	-	-
Generator Replacement Project (Engineering)	150,000	-	-	-	-	-	-
Total Capital Expenditures	8,219,000	21,108,000	7,922,000	8,229,000	904,000	3,903,000	150,000
Capital Financing							
Provincial/Federal Grants		-					
Operating Contributions	8,219,000	-	-	-	-	-	-
Water Reserve	-	21,108,000	7,922,000	8,229,000	904,000	3,903,000	150,000
Total Capital Financing	8,219,000	21,108,000	7,922,000	8,229,000	904,000	3,903,000	150,000

Appendix A-2
Lambton Area Water Supply System
Water Reserve/Reserve Fund Continuity
2020-2025

Description	2020		2021	2022	2023	2024	2025
Opening Balance	4,299,000		7,531,050	4,706,229	1,722,476	6,045,487	7,288,777
Transfer from Operating	3,084,382		5,004,900	5,211,472	5,108,472	5,003,372	4,896,272
Transfer to Capital	-		7,922,000	8,229,000	904,000	3,903,000	150,000
Transfer to Operating	-		-	-	-	-	-
Closing Balance	7,383,382		4,613,950	1,688,702	5,926,948	7,145,859	12,035,049
Interest	147,668		92,279	33,774	118,539	142,917	240,701



Appendix A-3
Lambton Area Water Supply System
Water Operating Forecast
2020-2025

Description	Budget 2020		Forecast				
			2021	2022	2023	2024	2025
Expenditures							
<u>Operating Costs</u>							
Administration, Operations & Maintenance Contract (OCWA)	4,353,239		4,440,300	4,529,100	4,619,700	4,712,100	4,806,300
Emergency Repairs	200,000		200,000	200,000	200,000	200,000	200,000
Annual Maintenance Plan	30,000		30,000	30,000	30,000	30,000	30,000
General and Administrative Expense	348,000		355,000	362,100	369,300	376,700	384,200
Staff Salary and Benefits	250,000		255,000	260,100	265,300	270,600	276,000
Schedule G Reconciliation Estimate	150,000		150,000	150,000	150,000	150,000	150,000
Sub Total Operating	5,331,239		5,430,300	5,531,300	5,634,300	5,739,400	5,846,500
<u>Capital-Related</u>							
Transfer to Capital	8,219,000		-	-	-	-	-
Transfer to Capital Reserve	3,084,382		5,004,900	5,211,472	5,108,472	5,003,372	4,896,272
Sub Total Capital Related	11,303,382		5,004,900	5,211,472	5,108,472	5,003,372	4,896,272
Total Expenditures	16,634,621		10,435,200	10,742,772	10,742,772	10,742,772	10,742,772
Revenues							
Interest from Rental Fees	72,000		72,000	72,000	72,000	72,000	72,000
Sale of Water	100,000		100,000	100,000	100,000	100,000	100,000
Revenue Transfer from Previous Budget	6,498,000		-	-	-	-	-
Total Operating Revenue	6,670,000		172,000	172,000	172,000	172,000	172,000
Water Billing Recovery - Total	9,964,621		10,263,200	10,570,772	10,570,772	10,570,772	10,570,772

Appendix A-4
Lambton Area Water Supply System
Water Rate Forecast
2020-2025

Description	2020		2021	2022	2023	2024	2025
Total Water Billing Recovery	9,964,621		10,263,200	10,570,772	10,570,772	10,570,772	10,570,772
Total Volume (m ³)	17,986,681		17,986,681	17,986,681	17,986,681	17,986,681	17,986,681
Constant Rate	0.5540		0.5706	0.5877	0.5877	0.5877	0.5877
Annual Percentage Change			3%	3%	0%	0%	0%

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To: Chair and Members
Lambton Area Water Supply System Joint Board of Management

From: Clinton Harper
General Manager

Subject: LAWSS Master Water Plan Update- Growth Factors
(Rev.2020/04/27)

Recommendation

It is recommended that the LAWSS Joint Board of Management;

1. **ENDORSE** a growth factor of 11.2% for the City of Sarnia, 24.7% for St. Clair Township, 25.0% for the Town of Plympton-Wyoming, 21.7% for the Township of Warwick, 10.0% for the Village of Point Edward and 17% for the Municipality Lambton Shores for the 2020 LAWSS Master Water Plan.
2. **RECOGNIZE** that the Township of Warwick has undertaken a water needs analysis and that this analysis will be considered in the annual review process and future updates of the LAWSS Master Water Plan
3. **EXTEND** the scope of the 2020 LAWSS Master Water Plan Update to include a sensitivity analysis with an upset limit of \$15,000.

Background:

On January 22, 2020, AECOM, OCWA and LAWSS attended a project kick off meeting to discuss the 2020 LAWSS Master Water Plan Update project. The foundation of the Master Water Plan Update is growth. AECOM provided growth projections and requested that each of the LAWSS Member Municipalities provide feedback to assist in establishing a combination of population and ICI growth that would allow for development for the system over the planning horizon.

The original Demand Projection report prepared by AECOM was focused primarily on population and relied heavily on the accuracy of the population growth projections described in the Lambton County Official Plan. Issues with their methodology were identified by the LAWSS Technical Team early on. The key issues the technical team had with the original report were as follows.

- 1) The population growth projections outlined in the County of Lambton Official Plan were considered too low and did not represent actual growth observed.

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- 2) The population growth in and of itself is not an indication of total growth and in some cases non-residential growth is the primary driving factor with respect to water demand.

AECOM was asked to update the Demand Projection report based on this feedback. The resulting report is based on actual flow data, actual census data, and available development studies. The report indicates an overall level of system growth at LAWSS that equally considers both residential and non-residential growth factors and is based on historic water demand.

At the February 27, 2020 regular meeting, the LAWSS Board tabled the growth factors presented in Table #1, as provided by AECOM, to allow the respective Municipalities time to review. Staff was asked to provide a report back to the LAWSS Board at the Regular meeting in April summarizing the responses.

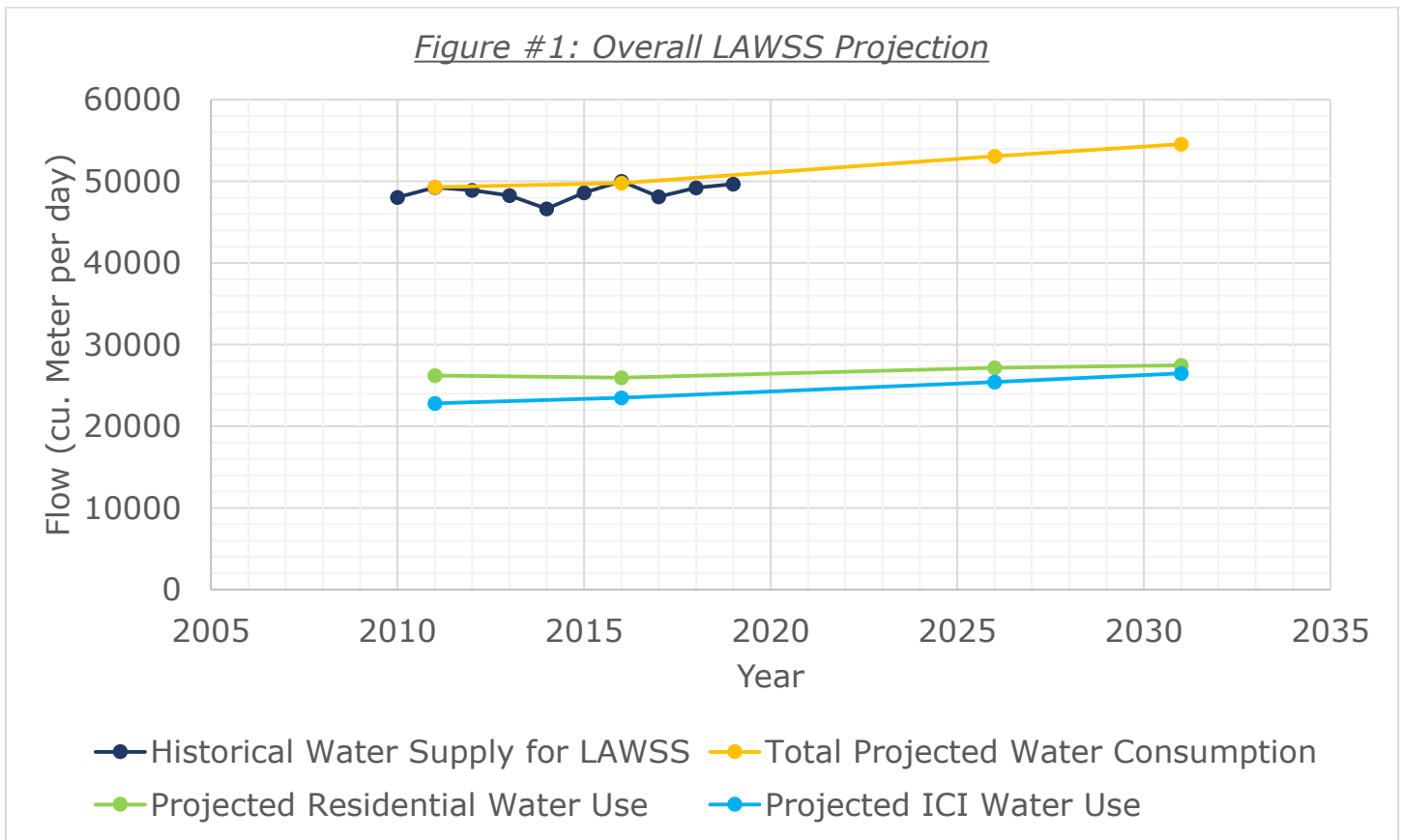
Table #1: Overall Growth Summary (2016 – 2031)

	City of Sarnia	St. Clair Township	Town of Plympton-Wyoming	Township of Warwick	Village of Point Edward	Municipality of Lambton Shores	LAWSS
<i>Res. Growth</i>	3.8%	3.2%	5.3%	-1.3%	0.3%	6.9%	3.6%
<i>ICI Growth</i>	21.2%	3.1%	12.6%	10.3%	9.5%	29.6%	11.5%
Total Growth	11.2%	4.7%	8.2%	3.2%	7.6%	17.0%	9.5%

Note: ICI Growth for Point Edward was adjusted to LAWSS Average; which is 9.5% as opposed to negative growth.

Overall LAWSS Growth, based on the data presented in Table #1 is illustrated in Figure #1. The graph illustrates a total System growth of 9.5% by 2031.

Figure #1: Overall LAWSS Projection



Comments:

Selecting an appropriate growth factor is very important from a planning perspective. Due to the many unknowns, selecting an appropriate growth factor can also be extremely difficult. A growth factor that is too low may result in not having the capital and/or infrastructure in place when needed to facilitate growth. A growth factor that is too high will put unnecessary strain on the taxpayer and may result on having capital and/or infrastructure in place prior to when it is needed. It is the responsibility of the General Manager to continuously monitor the planned growth against actual growth and provide the information back to the Broad. This is done so minor adjustments can be made on an annual basis to keep the Plan on track. It is typical for a Master Plan of this type to be reviewed annually and to be completely re-built every 5 years.

On February 16, 2020 Statistics Canada released population projections estimates;

"based on the latest census counts adjusted for census net under coverage (including adjustment for incompletely enumerated Indian reserves) and on the estimated population growth that occurred since that census, as calculated using fiscal data. Intercensal estimates are based on postcensal estimates and census counts adjusted of the censuses preceding and following the considered year."

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The Statistics Canada population estimates for LAWSS Members is listed in Table #2. This information was not available to AECOM when they completed the original "Water Demand Projection Analysis".

Table #2: Statistics Canada- Population Projections

	2015	2016	2017	2018	2019
Sarnia (CY), Ontario	73,128	73,203	73,415	74,203	74,779
St. Clair (TP), Ontario	14,533	14,375	14,437	14,577	14,755
Lambton Shores (MU), Ontario	10,689	10,817	10,890	11,066	11,050
Plympton-Wyoming (T), Ontario	7,918	7,962	8,077	8,294	8,393
Warwick (TP), Ontario	3,851	3,764	3,844	3,829	3,924
Point Edward (VL), Ontario	2,077	2,075	2,080	2,036	2,038

<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710014201>

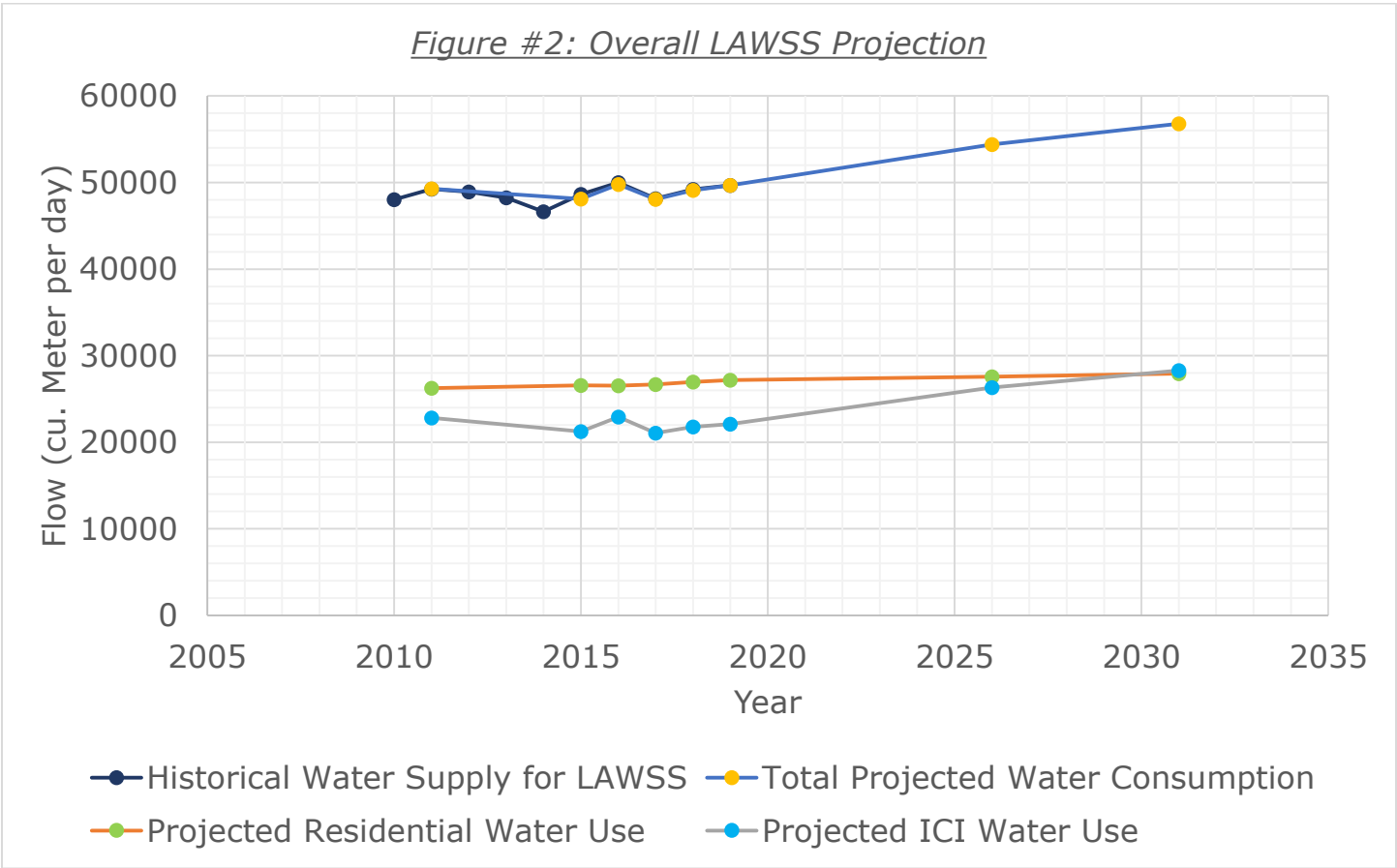
AECOM was asked to consider the Statistics Canada information and prepare an update to Table 1. This update is presented in Table #3.

Table #3: Alternative Overall Growth Summary (2016-2031)

	City of Sarnia	St. Clair Township	Town of Plympton-Wyoming	Township of Warwick	Village of Point Edward	Municipality of Lambton Shores	LAWSS
<i>Res. Growth</i>	2.8%	7.3%	20.0%	8.4%	4.1%	8.5%	5.2%
<i>ICI Growth</i>	18.7%	31.0%	0.1%	9.2%	5.7%	15.9%	15.4%
<i>Total Growth</i>	8.7%	24.7%	16.7%	11.7%	5.0%	11.0%	14.0%

Overall LAWSS Growth, based on the data presented in Table #3 is illustrated in Figure #2. The Figure illustrates a total System growth of 14% by 2031.

Figure #2: Overall LAWSS Projection



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Consultation:

The Municipal Responses are provided in Table #4.

Table #4: Alternative Overall Growth Summary (2016-2031)

	City of Sarnia	St. Clair Township	Town of Plympton-Wyoming	Township of Warwick	Village of Point Edward	Municipality of Lambton Shores
<i>Total Growth</i>	11.2%	20.0%	25.0%	21.7%	10.0%	14.0%

The City of Sarnia Council has endorsed a projected water demand growth rate of 11.2%, by 2031. This growth rate is based on the information provided in the original AECOM report. It is recommended that a growth rate of 11.2% is used. City of Sarnia Council also requested that the LAWSS Master Water Plan Update include a sensitivity analysis to compare the impact of various projected water demand growth rates on capital infrastructure needs. A sensitivity analysis will compare the overall growth rate that is accepted for the project versus what was proposed in the original AECOM report. The analysis involves additional model runs and is expected to be completed for \$15,000.

The Township of St. Clair Council resolved that the St. Clair Township Water Demand Forecast be set at 20%, by 2031 for the LAWSS Water Master Plan. In light of the additional information mentioned in the comments section of this report, it is recommended that a growth rate of 24.7% is used instead. The 24.7% is based on the best information available.

The Town of Plympton-Wyoming Council endorsed a projected 25% water demand increase by 2031 for the LAWSS Master Plan Update. This is 8.3% greater than the 16.7% presented in Table #3 and based on the Statistics Canada data. A local Municipality is always best equipped to predict growth and information used to predict growth is inherently incomplete. For these reasons, along with the slightly more conservative approach, the 25% increase is recommended.

The Township of Warwick projects a growth rate of 21.7%, by 2031 for the LAWSS Master Plan Update. This is 10% greater than the 11.7% presented in Table 3 and based on the Statistics Canada data. A local Municipality is always best equipped to predict growth and information used to predict growth is inherently incomplete. For these reasons, along with the slightly more conservative approach, the 21.7% increase is recommended.

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The Village of Point Edward submitted a growth rate of 10%, by 2031 for the LAWSS Master Plan Update. This is 5% greater than the 5% presented in Table #3 and based on Statistics Canada data. Again, a local Municipality is always best equipped to predict growth and information used to predict growth is inherently incomplete. For these reasons, along with the slightly more conservative approach, the 10% increase is also recommended.

The Municipality of Lambton Shores submitted a growth rate of 17.0%, by 2031 for use in the LAWSS Master Water Plan Update. This growth rate is based on the original information provided in the AECOM report. It is recommended that a growth rate of 17.0%, by 2031 is used.

Financial Implications:

For the project itself, there are no financial implications with respect to selecting a rate of growth for the project. With the growth factors provided back to the Consultant, work can proceed on the project. Work on the project is currently 2 months behind schedule but still expected to remain within budget at this time.

As mentioned previously in the comments section, selecting an appropriate growth factor is very important from a planning perspective. Due to the many unknowns, selecting an appropriate growth factor can also be extremely difficult. A growth factor that is too low may result in not having the capital and/or infrastructure in place when needed to facilitate growth. A growth factor that is too high will put unnecessary strain on the taxpayer and may result on having capital and/or infrastructure in place prior to when it is needed.

Again, it's the responsibility of the LAWSS General Manager to continuously monitor the planned growth against actual growth and provide the information back to the Broad. A report on how the growth is tracking will be included in the Annual Budget proposal and will be used to implement minor adjustments in an effort to keep the Plan on track.

Table #5: Recommend Overall Growth Summary (2016-2031)

	City of Sarnia	St. Clair Township	Town of Plympton-Wyoming	Township of Warwick	Village of Point Edward	Municipality of Lambton Shores
Table #1	11.2%	4.7%	8.2%	3.2%	7.6%	17.0%
Table #3	8.7%	24.7%	16.7%	11.7%	5.0%	11.0%
Table #4	11.2%	20.0%	25.0%	21.7%	10.0%	17.0%

This report was prepared by: Clinton Harper, LAWSS General Manager

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Attachment(s): none