

AGENDA

Joint Board of Management Meeting



Thursday, May 28, 2020
12:00 pm

1. Call to Order

- a. Disclosure of Pecuniary Interest

2. Adoption of Minutes

A copy of the minutes of the Thursday April 30, 2020 meeting of the LAWSS Joint Board of Management is attached to this agenda.

Moved By _____

Seconded By _____

"That the LAWSS Joint Board of Management **ADOPT** the Thursday, April 30, 2020 meeting minutes."

3. Presentation of LAWSS 2019 Draft Audited Financial Statement

Eric Hicks, CPA. Manager BDO Canada LLP

The LAWSS Draft Audited Financial Statement for 2019 and Planning Report to the LAWSS Board is attached to this agenda. In 2019 the Board appointed BDO as LAWSS auditor for the 2019, 2020 and 2021 calendar years.

Moved By _____

Seconded By _____

"That the LAWSS Joint Board of Management **TRANSFER** \$2,908,028 to reserve as identified on page 14 of the draft audited financial statement for 2019. Note this does not represent a physical transfer of money but indicates a surplus based on the line items outlined on page 14."

Moved By _____

Seconded By _____

"That the LAWSS Joint Board of Management **ACCEPT** the draft audited financial statement for 2019."

4. Consent Items

Moved By _____

Seconded By _____

"That the LAWSS Joint Board of Management **RECEIVE** as information the March 2020 Financial Statements, the April 2020 Operational Statements and the April 2020 Flow Summary Sheets along with the report subject: Information Report (May 28, 2020)."

a. Financial Statement- March 2020

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

b. Operational Statement - April 2020

The April 2020 Monthly Operations Reports are attached.

c. Information Reports

1. April 2020 Flow Summary Sheets

2. Information Report (May 28, 2020)

5. Items for Discussion

a. Webcasting and Video Archiving

Moved By _____

Seconded By _____

"That the LAWSS Joint Board of Management **ACCEPTS** the report titled "Webcasting and Video Archiving" dated May 28, 2020 as information."

b. WLPS Back Pressure Sustaining Valve Project Update

Moved By _____

Seconded By _____

"That the LAWSS Joint Board of Management **APPROVE** a budgetary increase of \$109,000 to the 2020 WLPS 36" Ross Valve Capital Project.

c. Condition Assessment- Port Lambton and Warford SP

Moved By _____

Seconded By _____

"That the LAWSS Joint Board of Management **HIRE** CIMA+ to complete a

condition assessment of the Port Lambton and Watford Standpipe in the amount of \$26,730.00+taxes."

Moved By _____

Seconded By _____

"That the LAWSS Joint Board of Management **APPROVE** CIMA+ to complete a Finite Element Analysis on the Port Lambton and Watofrd SP in the amount of \$18,100."

d. WTP Reservoir Leak Update #2

Moved By _____

Seconded By _____

"That the LAWSS Joint Board of Management **RECEIVE** the report titled "WTP Reservoir Leak Update #2" dated May 28, 2020 as information and **DEFER** matter to the 2021 Budget Deliberation."

e. Treatment Investigations @ LAWSS WTP Update

Moved By _____

Seconded By _____

"That the LAWSS Joint Board of Management **POSTPONE** the Municipal Impact Study"

f. NEW Class A Energy Customer Election Deadline (June 15, 2020)

Moved By _____

Seconded By _____

"That the LAWSS Joint Board of Management **ELECT** to participate in the Province's Industrial Conservation Initiative (ICI) as a Class A customer for the upcoming election period of July 1, 2020 to June 30, 2021."

6. Deferred Matters/Additional Business

7. Confidential

8. Adjournment

Moved By _____

Seconded By _____

"That the LAWSS Joint Board of Management **ADJOURN** this meeting to its next board meeting held on Thursday, June 25, 2020 at 12pm at the Tourism Sarnia-Lambton Assembly Room, 1455 Venetian Blvd. Point Edward.:



Minutes

Joint Board of Management Meeting

Thursday, April 30, 2020

12:00 pm

Members

Mayor Bev Hand, Village of Point Edward

Mayor Steve Arnold, St. Clair Township

Mayor Jackie Rombouts, Township of Warwick

Mayor Lonny Napper, Town of Plympton-Wyoming

Councillor Margaret Bird, City of Sarnia

Councillor Rick Goodhand, Municipality of Lambton Shores

LAWSS General Manager:

Clinton Harper

Technical Staff:

Andrew Maver, Township of Warwick

Brian Black, St. Clair Township

Adam Sobanski, Town of Plympton-Wyoming

Pratt Rawatt, City of Sarnia

Jay Verstraeten, Village of Point Edward

Nick Verhoeven, Municipality of Lambton Shores

Mark Harris, OCWA Operational Manager

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."

Carried

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."

Carried

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."

Carried

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)."

Carried

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

c. Information Report

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

b. Operational Statements

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

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

5. Items for Discussion

a. Notice of Motion - Councillor Bird

1. Councillor Bird - Webcasting & Video Archive

For 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 archiving of future meetings of the LAWSS Board."

Carried

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."

Defeated

Moved by: Councillor Margaret Bird

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

Defeated

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.)."

Carried

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."

Carried

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."

Carried

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."

Carried

LAMBTON AREA WATER SUPPLY SYSTEM

FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Draft for board approval

**LAMBTON AREA WATER SUPPLY SYSTEM
INDEX TO FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2019**

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Independent Auditor's Report

To the Members of the Lambton Area Water Supply System

Opinion

We have audited the financial statements of the Lambton Area Water Supply System (the Organization), which comprise the statement of financial position as at December 31, 2019, and the statements of operations, change in net financial assets and cash flow for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Lambton Area Water Supply System as at December 31, 2019, and its results of operations, its change in net financial assets, and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Organization in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Organization's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Organization or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Organization's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Auditor's Responsibilities for the Audit of the Financial Statements - continued

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Organization's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Organization's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Organization to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Chartered Professional Accountants, Licensed Public Accountants

Sarnia, Ontario
May XX, 2020

**LAMBTON AREA WATER SUPPLY SYSTEM
STATEMENT OF FINANCIAL POSITION
FOR THE YEAR ENDED DECEMBER 31, 2019**

	2019 ACTUAL \$	2018 ACTUAL \$
FINANCIAL ASSETS		
Cash (Note 3)	10,214,734	7,182,355
Accounts Receivable	630,119	559,843
Total Financial Assets	10,844,853	7,742,198
LIABILITIES		
Accounts Payable and Accruals	252,841	58,214
NET FINANCIAL ASSETS	10,592,012	7,683,984
NON-FINANCIAL ASSETS		
Tangible Capital Assets - Net (Schedule 1 and 2)	86,748,811	86,596,640
Accumulated Surplus (Schedule 3)	97,340,823	94,280,624

The accompanying notes and schedules are an integral part of this financial statement.

**LAMBTON AREA WATER SUPPLY SYSTEM
STATEMENT OF OPERATIONS
FOR THE YEAR ENDED DECEMBER 31, 2019**

	2019 BUDGET \$	2019 ACTUAL \$	2018 ACTUAL \$
REVENUE			
Municipality Recovery	9,580,197	9,580,197	9,581,155
Interest	72,000	228,220	104,859
Other Revenue	339,000	197,186	253,511
Total Revenue	9,991,197	10,005,603	9,939,525
EXPENSES			
Plant Operating	4,569,143	4,085,452	4,019,749
Tax Allowance	190,000	200,143	184,482
Maintenance			
Engineering Study	385,000	141,746	74,554
Major Maintenance	240,000	166,864	114,258
Distribution Repairs	200,000	75,781	211,821
Facility Maintenance	-	10,934	-
Administration			
Wages and Benefits	251,500	145,117	306,132
Legal Fees and Easements	20,000	18,094	53,349
Audit Fee	14,000	14,265	13,834
Insurance	21,000	21,773	20,848
Meals and Travel	4,000	5,496	4,063
Membership	2,000	908	1,332
Miscellaneous	2,100	1,428	1,891
Office Supplies	3,000	5,137	2,495
Postage	500	180	92
Advertising and Promotions	200	1,060	-
Telephone and Internet	4,500	5,432	5,320
Education and Conference	4,000	3,962	4,955
Computer Software	16,000	32,693	21,275
GIS/IT Consulting	4,700	4,744	8,460
Vehicle Costs	12,500	-	2,028
St.Clair Conservation Consulting	30,000	28,160	-
Amortization	1,976,035	1,976,035	1,952,098
Total Expenses	7,950,178	6,945,404	7,003,036
ANNUAL SURPLUS	2,041,019	3,060,199	2,936,489
ACCUMULATED SURPLUS, beginning of the year	94,280,624	94,280,624	91,344,135
ACCUMULATED SURPLUS, end of the year (Schedule 3)	96,321,643	97,340,823	94,280,624

The accompanying notes and schedules are an integral part of this financial statement.

**LAMBTON AREA WATER SUPPLY SYSTEM
STATEMENT OF CHANGE IN NET FINANCIAL ASSETS
FOR THE YEAR ENDED DECEMBER 31, 2019**

	2019 BUDGET \$	2019 ACTUAL \$	2018 ACTUAL \$
ANNUAL SURPLUS	2,041,019	3,060,199	2,936,489
Amortization of Tangible Capital Assets	1,976,036	1,976,035	1,952,098
Acquisition of Tangible Capital Assets	(5,225,000)	(2,128,206)	(364,876)
Change in Net Financial Assets	(1,207,945)	2,908,028	4,523,711
NET FINANCIAL ASSETS , beginning of the year	7,683,984	7,683,984	3,160,273
NET FINANCIAL ASSETS, end of the year	6,476,039	10,592,012	7,683,984

The accompanying notes and schedules are an integral part of this financial statement.

**LAMBTON AREA WATER SUPPLY SYSTEM
STATEMENT OF CASH FLOW
FOR THE YEAR ENDED DECEMBER 31, 2019**

	2019 ACTUAL \$	2018 ACTUAL \$
OPERATING ACTIVITIES		
Annual Surplus	3,060,199	2,936,489
Uses(Sources) of Cash:		
Accounts Receivable	(70,276)	80,099
Accounts Payable	194,627	(1,229,541)
	124,351	(1,149,442)
Non-Cash Charges to Operations:		
Amortization	1,976,035	1,952,098
Cash Provided by Operations	5,160,585	3,739,145
CAPITAL ACTIVITIES		
Cash Used to Acquire Tangible Capital Assets	(2,128,206)	(364,876)
NET CHANGE IN CASH	3,032,379	3,374,269
CASH, beginning of the year	7,182,355	3,808,086
CASH, end of the year	10,214,734	7,182,355

The accompanying notes and schedules are an integral part of this financial statement.

**LAMBTON AREA WATER SUPPLY SYSTEM
NOTES TO THE FINANCIAL STATEMENTS
AS AT DECEMBER 31, 2019**

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

These financial statements are the representation of management and have been prepared in accordance with generally accepted accounting policies for municipal governments, as recommended by the Public Sector Accounting Board of the Canadian Institute of Chartered Professional Accountants. Since precise determination of many assets and liabilities is dependent upon future events, the preparation of periodic financial statements necessarily involves the use of estimates and approximations. These have been made using careful judgements.

Basis of Accounting (accrual)

- (i) Sources of financing and expenditures are reported on the accrual basis of accounting.
- (ii) The accrual basis of accounting recognizes revenues as they become available and measurable; expenditures are recognized as they are incurred and measurable as a result of receipt of goods or services and the creation of a legal obligation to pay.

- (iii) **Non-Financial Assets**

Non-financial assets are not available to discharge existing liabilities and are held for use in the provision of services. They have useful lives extending beyond the current year, and are not intended for sale in the ordinary course of operations. The change in non-financial assets during the year, together with excess of revenues over expenses, provides the Change in Net Financial Assets for the year.

- (a) **Tangible Capital Assets**

Tangible capital assets are recorded at cost, which includes all amounts that are directly attributable to acquisition, construction, development or betterment of the asset, less accumulated amortization. The cost, less residual value, of the tangible capital assets is amortized on a straight-line basis over their estimated useful lives as follows:

Land Improvements	15 to 25 years
Equipment	10 years
Facilities	15 to 100 years
Environmental Infrastructure	75 to 115 years

Amortization is charged commencing the year after acquisition. Assets under construction are not amortized until the asset is available for productive use.

- (iv) **Revenue Recognition**

Municipality recovery revenue is recognized in the year that the service relates to. Municipality recoveries for water use are based on annual budgeted amounts as determined with reference to anticipated operating and capital costs. Interest is recorded as revenue when earned.

**LAMBTON AREA WATER SUPPLY SYSTEM
NOTES TO THE FINANCIAL STATEMENTS
AS AT DECEMBER 31, 2019**

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - continued

(v) Liability for Contaminated Sites

A contaminated site is a site at which substances occur in concentrations that exceed the maximum acceptable amounts under an environmental standard. Sites that are currently in productive use are only considered a contaminated site if an unexpected event results in contamination. A liability for the remediation of contaminated sites is recognized when the organization is directly responsible or accepts responsibility; it is expected that future economic benefits will be given up; and a reasonable estimate of the amount can be made. The liability includes all costs directly attributable to remediation activities including post remediation operation, maintenance and monitoring. The liability is recorded net of any expected recoveries. At December 31, 2019, the Board has not identified any instances that meet the criteria for a liability for contaminated sites.

2. NATURE OF REPORTING ENTITY

In 1998, the participating municipalities received a draft Notice of Transfer for the Lambton Area Water Supply System pursuant to Section 5 of the Municipal Water and Sewage Transfer Act, 1997.

Under the transfer order the works, properties and all assets, liabilities, rights and obligations of the system have been conveyed, assigned and transferred jointly to the following participating municipalities: The Corporation of the City of Sarnia, The Corporation of the Municipality of Lambton Shores (formally The Corporation of the Town of Bosanquet and The Corporation of the Town of Forest), The Corporation of the Township of St. Clair (formally The Corporation of the Township of Moore and The Corporation of the Township of Sombra), The Corporation of the Town of Plympton-Wyoming (formally The Corporation of the Township of Plympton and The Corporation of the Village of Wyoming), The Corporation of the Village of Point Edward, and The Corporation of the Township of Warwick. As long as a participating municipality is serviced by the works, each will have an undivided beneficial ownership interest in the works as tenant in common with all other municipalities jointly. The proportion that each municipality's interest bears to the total of the municipalities' interest shall be in the same ratio that the quantity of water supplied from the works to the municipality at any time and from time to time bears to the total quantity of water supplied to all the municipalities at such time.

A joint board of management was established to govern the management of the water supply system. The joint board of management is comprised of one representative from each of the participating municipalities. The representative for The Corporation of the City of Sarnia has 5 votes, The Corporation of the Township of St. Clair has 2 votes, and all other representatives have one vote each.

3. CASH

The Board's cash is held at one Canadian chartered bank and earns interest based on the monthly average prime rate less 1.65%. An operating line of credit was available by way of bank overdraft in the amount of \$50,000 as at December 31, 2019. NIL has been drawn on this line of credit as of December 31, 2019.

**LAMBTON AREA WATER SUPPLY SYSTEM
NOTES TO THE FINANCIAL STATEMENTS
AS AT DECEMBER 31, 2019**

4. RESERVES

The reserve has been established for future capital repairs and replacement.

5. PENSION AGREEMENTS

The Organization makes contributions to the Ontario Municipal Employees Retirement Fund (OMERS), which is a multi-employer plan, on behalf of 1 member of its staff. The plan is a defined benefit plan which specifies the amount of the retirement benefit to be received by the employees based on the length of service and rates of pay. Employees and employers contribute jointly to the plan.

The Administration Corporation Board of Directors, representing plan members and employers, is responsible for overseeing the management of the pension plan, including investment of the plan assets and administration of the benefits. OMERS provides pension services to over 500,000 active and retired members and approximately 1,000 employers. Each year an independent actuary determines the funding status of OMERS Primary Pension Plan (the Plan) by comparing the actuarial value of invested assets to the estimated present value of all pension benefits that members have earned to date. The most recent actuarial valuation of the Plan was conducted at December 31, 2019. The results of this valuation disclosed total actuarial liabilities of \$106,400 million in respect of benefits accrued for services with actuarial assets at that date of \$103,000 million indicating an actuarial deficit of \$3,400 million. Ongoing adequacy of the current contribution rates will need to be monitored as fluctuations in the financial markets may lead to increased future funding requirements.

Because OMERS is a multi-employer pension plan, any pension plan surpluses or deficits are a joint responsibility of Ontario municipal organizations and their employees. As a result, the Organization does not recognize any share of the OMERS pension surplus or deficit. The amount contributed to OMERS for 2019 was \$11,935 (2018 - \$25,285) for current service and is included as an expenditure on the Statement of Operations. The OMERS Board rate was 9.0% to 14.6% depending on income level for 2019 (2018 - 9.0% to 14.6% depending on income level).

The Organization made no contribution under the past services provisions of the OMERS Agreement.

6. EXPENDITURE BY OBJECT

Total expenditures for the year reported on the Statement of Operations are as follows:

	<u>2019</u>	<u>2018</u>
Wages and employee benefits	\$ 145,117	\$ 306,132
Materials	82,813	72,759
Contracted services	4,741,439	4,672,047
Amortization	<u>1,976,035</u>	<u>1,952,098</u>
Total	<u>\$ 6,945,404</u>	<u>\$ 7,003,036</u>

**LAMBTON AREA WATER SUPPLY SYSTEM
NOTES TO THE FINANCIAL STATEMENTS
AS AT DECEMBER 31, 2019**

7. COMMITMENTS

In 2018 and prior, \$359,479 was spent on LAWSS radio and SCADA PLC upgrade project including pre-purchase of radio and PLC components. An additional \$377,380 was spent in 2019 on engineering fees and construction. It is expected that an additional \$46,500 will be spent in 2020 to install the radio and PLC components.

The Lambton Area Water Supply System is committed to replacing the main plant emergency backup generator system and main plant 5kV switchgear by the end of 2020. An Engineering firm has been hired to develop a RFP for the installation portion. To date funds spent total \$1,486,887 with the remaining \$4,279,113 to be spent in 2020 to complete the project and the project's total budget is \$5,766,000.

The Lambton Area Water Supply System is committed to rebuilding the 36" Ross valve at West Lambton Pumping Station by the end of 2020. The project has been contracted to OCWA to do all project management for Ross Valve. This valve was previously mislabeled as 32".

The Lambton Area Water Supply System is committed to developing an overall plan to update the control systems at LAWSS in 2020. The SCADA Upgrade Master Plan, indicated as PLC Upgrade Project on the 2020 Budget, is estimated at \$150,000.

The Lambton Area Water Supply system is committed to upgrading the Water Treatment Plant's PLC Conversion system. The project is estimated at \$150,000 including engineering.

The Lambton Area Water Supply system is committed to get engineering designs for 5kV Motor Control Groups A & B, Water Treatment Plant Main Plant HVAC Repair, West Lambton Pumping Station reservoir rehabilitation and Indian Road Water Tower rehabilitation. The project is estimated at \$351,000.

The Lambton Area Water Supply system is committed to upgrading Distribution for Field Gate to 4G Network. The project is estimated at \$75,000.

The Lambton Area Water Supply system is committed to six Engineering studies in 2020. The studies are for the following: LAWSS Master Plan rebuild, Conditional Assessments for Port Lambton standpipe & Watford standpipe, Jacob's Loop, Corrosion control study with impact to municipalities, Watermain condition assessment and Environmental assessment on Twinning and Grid Reinforcement. The various engineering studies are estimated at \$833,000.

9. SUBSEQUENT EVENTS

Subsequent to year-end, the impact of COVID-19 in Canada and on the global economy increased significantly. In response, the Organization implemented protective measures in compliance with the Public Health Agency of Canada (PHAC) to safeguard the health and wellbeing of the Organization as well as its customers and suppliers. Additionally, major capital projects have been delayed due to the restrictions imposed by PHAC to cease all non-essential work. At this time, the full potential impact of COVID-19 on the entity is not known.

Tangible Capital Assets (Schedule 1)
Lambton Area Water Supply System
2019

	Land	Land Improvements	Equipment	Facilities	Environmental Infrastructure	Work In Progress	2019 Actual	2018 Actual
Cost								
BALANCE, beginning of the year	\$ 1,272,202	\$ 675,133	\$ 80,777	\$ 46,475,402	\$ 84,462,652	\$ 1,060,783	\$ 134,026,949	\$ 133,662,073
Add:								
Additions during the year	-	-	-	353,274	-	1,822,753	2,176,027	1,834,584
Less:								
Transfers during the year	-	-	-	-	-	(47,821)	(47,821)	(1,469,708)
BALANCE, end of the year	1,272,202	675,133	80,777	46,828,676	84,462,652	2,835,715	136,155,155	134,026,949
ACCUMULATED AMORTIZATION								
BALANCE, beginning of the year	-	637,737	41,599	21,712,726	25,038,247	-	47,430,309	45,478,211
Add:								
Amortization during the year	-	14,103	4,353	1,115,037	842,542	-	1,976,035	1,952,098
Less:								
Accumulated amortization on disposals	-	-	-	-	-	-	-	-
Adjustment Prior Year	-	-	-	-	-	-	-	-
BALANCE, end of the year	-	651,840	45,952	22,827,763	25,880,789	-	49,406,344	47,430,309
NET BOOK VALUE OF TANGIBLE CAPITAL ASSETS	\$ 1,272,202	\$ 23,293	\$ 34,825	\$ 24,000,913	\$ 58,581,863	\$ 2,835,715	\$ 86,748,811	\$ 86,596,640

Tangible Capital Assets (Schedule 2)
Lambton Area Water Supply System
2018

	Land	Land Improvements	Equipment	Facilities	Environmental Infrastructure	Work In Progress	2018 Actual	2017 Actual
Cost								
BALANCE, beginning of the year	\$ 1,272,202	\$ 675,133	\$ 80,777	\$ 44,782,995	\$ 84,462,652	\$ 2,388,314	\$ 133,662,073	\$ 132,012,983
Add:								
Additions during the year	-	-	-	1,692,407	-	142,177	1,834,584	2,287,053
Less:								
Transfers during the year	-	-	-	-	-	(1,469,708)	(1,469,708)	(637,963)
BALANCE, end of the year	1,272,202	675,133	80,777	46,475,402	84,462,652	1,060,783	134,026,949	133,662,073
ACCUMULATED AMORTIZATION								
BALANCE, beginning of the year	-	623,634	36,158	20,622,714	24,195,705	-	45,478,211	43,613,389
Add:								
Amortization during the year	-	14,103	5,442	1,090,011	842,542	-	1,952,098	1,916,199
Less:								
Accumulated amortization on disposals	-	-	-	-	-	-	-	(51,377)
Adjustment Prior Year	-	-	-	-	-	-	-	-
BALANCE, end of the year	-	637,737	41,599	21,712,726	25,038,247	-	47,430,309	45,478,211
NET BOOK VALUE OF TANGIBLE CAPITAL ASSETS	\$ 1,272,202	\$ 37,396	\$ 39,178	\$ 24,762,676	\$ 59,424,405	\$ 1,060,783	\$ 86,596,640	\$ 88,183,862

**LAMBTON AREA WATER SUPPLY SYSTEM
SCHEDULE OF ACCUMULATED SURPLUS(SCHEDULE 3)
FOR THE YEAR ENDED DECEMBER 31, 2019**

	2019 ACTUAL \$	2018 ACTUAL \$
RESERVES (Schedule 4)	10,592,012	7,683,984
SURPLUSES		
Invested in Tangible Capital Assets	86,748,811	86,596,640
ACCUMULATED SURPLUS	97,340,823	94,280,624

**LAMBTON AREA WATER SUPPLY SYSTEM
SCHEDULE OF CONTINUITY OF RESERVES(SCHEDULE 4)
FOR THE YEAR ENDED DECEMBER 31, 2019**

	2019 ACTUAL \$	2018 ACTUAL \$
BALANCE, beginning of the year	7,683,984	3,160,273
REVENUE CONTRIBUTIONS	2,908,028	4,523,711
BALANCE, end of the year	10,592,012	7,683,984
RECONCILIATION OF CONTRIBUTIONS(WITHDRAWALS)		
Annual Surplus	3,060,199	2,936,489
Amortization	1,976,035	1,952,098
Capital Assets Purchased	(2,128,206)	(364,876)
ENDING CONTRIBUTIONS	2,908,028	4,523,711

		March 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	-2,430,948.47	-2,430,948.47	-9,823,795.00	0.00	25%
	Sarnia	-472,738.50	-472,738.50	-1,418,215.50	-1,418,215.50	-5,672,862.00	0.00	25%
	St. Clair Township	-241,312.17	-241,312.17	-723,936.50	-723,936.50	-2,895,746.00	0.00	25%
	Plympton-Wyoming	-40,353.75	-40,353.75	-121,061.25	-121,061.25	-484,245.00	0.00	25%
	Lambton Shores	-15,639.08	-15,639.08	-46,917.25	-46,917.25	-187,669.00	0.00	25%
	Warwick	-20,825.17	-20,825.17	-62,475.22	-62,475.22	-249,902.00	0.00	25%
	Point Edward	-19,447.58	-19,447.58	-58,342.75	-58,342.75	-233,371.00	0.00	25%
	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	-2,430,948.47	-2,430,948.47	-9,823,795.00	0.00	25%
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,		0.00	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	0.00	0.00	0.00	-14,000.00	0.00	0%
Investment Interest								
4420	Interest Earned	-21,540.05	-22,000.00	-66,430.17	0.00	-58,000.00	-66,430.17	115%
Project Expenses								
	Total Revenue	-831,856.30	-832,316.25	-2,497,378.64	-2,430,948.47	-9,895,795.00	-66,430.17	25%
5100	Project Expenses	57,068.17	0.00	167,777.46	1,083,199.29	12,430,313.20	-432,746.15	1%
	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)	33,425.47	0.00	33,425.47	0.00	120,000.00	-86,574.53	28%
	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	16,745.23	0.00	16,745.23	0.00	833,000.00	-816,254.77	2%
	R20-1 Financial Plan		0.00	0.00	0.00	0.00		
	Tasks carried over from 2018	6,897.47	0.00	117,606.76	529,013.05	6,348,156.60	-432,746.15	2%
	17-05 Engineering Design for Emergency Generators	6,614.40	0.00	6,614.40	22,166.67	266,000.00	-15,552.27	2%
	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	20.98	0.00	110,730.27	458,333.33	5,500,000.00	-347,603.06	2%
	18-03 SCADA Radio Replacement Work (Installation)	262.09	0.00	262.09	64,019.58	512,156.60	-63,757.49	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	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 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)	14,134.46	0.00	14,134.46	1,333.33	16,000.00	12,801.13	88%
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	2,029.65	0.00	2,029.65	208.33	2,500.00	1,821.32	81%
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 Hydrant 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	326,685.56	362,769.93	1,052,225.42	362,769.92	4,353,239.00	689,455.50	24%
5300 Flow Reconciliations		0.00	0.00	12,500.00	150,000.00	-12,500.00	0%
5400 LAWSS Wages & Benefits	42,916.31	20,833.33	42,916.31	20,833.33	250,000.00	22,082.98	17%
5450 WSIB	245.70	0.00	245.70	125.00	1,500.00	120.70	16%
5500 Audit Fees	0.00	0.00	3,074.17	1,166.67	14,000.00	1,907.50	22%
5505 Consulting		0.00	0.00	208.33	2,500.00		
5510 Accounting & Legal		0.00	2,888.76	1,666.67	20,000.00	1,222.09	14%
5515 Advertising & Promotions		0.00	0.00	16.67	200.00	-16.67	0%
5520 Membership Fees		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		0.00	37,288.37	15,000.00	180,000.00	22,288.37	21%
5550 Property Administration	202.93	0.00	161.31	1,250.00	15,000.00	-1,088.69	1%
5555 Insurance		0.00	0.00	1,750.00	21,000.00	-1,750.00	0%
5560 Interest & Bank Charges	4.30	0.00	10.85	8.33	100.00	2.52	11%
5565 Office Supplies		0.00	346.88	250.00	3,000.00	96.88	12%
5566 Computer Software		0.00	0.00	2,000.00	24,000.00	-2,000.00	0%
5570 Internet	85.43	0.00	170.86	125.00	1,500.00	45.86	11%
5571 GIS and Internet Services		0.00	0.00	183.33	2,200.00	-183.33	0%
5575 Travel (Includes Mileage)	97.26	0.00	97.26	125.00	1,500.00	-27.74	6%
5576 Vehicle Expenses		0.00	0.00	1,041.67	12,500.00	-1,041.67	0%
5580 Telephone	120.54	0.00	251.24	125.00	1,500.00	126.24	17%
5585 Mobile Phone	178.35	0.00	345.51	125.00	1,500.00	220.51	23%
5590 Meals & Entertainment		0.00	557.32	208.33	2,500.00	348.99	22%
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
450,666.13
383,603.26
1,333,858.25
2,079,982.26
24,391,708.80
719,108.75
5%

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

LAWSS Bank Account on March 1,2020	<u>10,924,851.91</u>
LAWSS Accounts Receivable - Received	<u>571,096.55</u>
	<u>11,495,948.46</u>
LAWSS Accounts Payable - Paid	533,535.99
LAWSS Accounts Payable - Outstanding	<u>365.81</u>
	<u>533,901.80</u>
LAWSS Bank Account on March 31, 2020	<u>10,962,412.47</u>
Adjusted Bank Balance on March 31, 2020	<u>10,962,046.66</u>
Cash in Reserve	<u>1,994,873.22</u>

Capital Project	Budget Approved	Board Approved	Total	Consultant/Contractor	PO/Contract Fee	Spent	Unspent	Start Date	End Date	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			\$33,425.47	\$86,574.53			In Progress
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			\$16,745.23	\$816,254.77			In Progress
R20-1 LAWSS Water Financial Plan				Watson & Associations Economists		\$2,003.15	\$0.00			In Progress
Projects Carry forward										
17-05 Engineering Design for Emergency Generators	\$150,000.00	\$116,000.00	\$ 266,000.00	EXP Services Inc.,	PO0228	\$114,976.31	\$151,023.69			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		\$1,489,254.98	\$4,010,745.02			In Progress
18-03 SCADA Radio Replacement Work (Installation)	\$ 150,000.00	\$ 362,156.60	\$ 512,156.60	Experteers	PO00237, PO0233	\$380,846.03	\$131,310.57			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			In Progress
MM20-02 WTP - VFD Flocc Mixers	\$ 45,000.00		\$ 45,000.00			\$0.00	\$45,000.00			In Progress
MM20-03 WTP - Replace 7 Chlorine On-Line Analyzers	\$ 20,000.00		\$ 20,000.00			\$0.00	\$20,000.00			In Progress
MM20-04 WTP - Traveling Screen Assessment and Inspection	\$ 12,000.00		\$ 12,000.00			\$0.00	\$12,000.00			In Progress
MM20-05 WTP - Chemical Feed Pumps (3)	\$ 16,000.00		\$ 16,000.00			\$14,134.46	\$1,865.54			In Progress
MM20-06 WTP - Gearbox Refub at Floc Tanks 2/yr	\$ 42,000.00		\$ 42,000.00			\$0.00	\$42,000.00			In Progress
MM20-07 WTP - Lab pH meter replacement	\$ 2,500.00		\$ 2,500.00			\$2,029.65	\$470.35			In Progress
MM20-08 WTP - Vibration Monitoring Program	\$ 1,500.00		\$ 1,500.00			\$0.00	\$1,500.00			In Progress
MM20-09 WTP - Valve gat isolation (3) 10Inch	\$ 25,000.00		\$ 25,000.00			\$0.00	\$25,000.00			In Progress
MM20-10 WTP - Low Lift Wet Well Cleanout	\$ 15,000.00		\$ 15,000.00			\$0.00	\$15,000.00			In Progress
MM20-11 WLPS - Crack Injection (West Wall)	\$ 5,000.00		\$ 5,000.00			\$0.00	\$5,000.00			In Progress
MM20-12 WLPS - Valve Discharge P1 Refurbish	\$ 25,000.00		\$ 25,000.00			\$0.00	\$25,000.00			In Progress
MM20-13 Hyddrant Installation London Lin (blow off) 6622 London Line	\$ 20,000.00		\$ 20,000.00			\$0.00	\$20,000.00			In Progress
MM20-14 Energy Conservation and efficiency studies	\$ 8,000.00		\$ 8,000.00			\$0.00	\$8,000.00			In Progress
MM20-15 Chamber (Flow) Abandonment	\$ 20,000.00		\$ 20,000.00			\$0.00	\$20,000.00			In Progress
MM20-16 Air Relief valves Relocate Air Valve	\$ 15,000.00		\$ 15,000.00			\$0.00	\$15,000.00			In Progress
MM20-17 Hydrant Isolation valve x (3) (Gland bolts)	\$ 15,000.00		\$ 15,000.00			\$0.00	\$15,000.00			In Progress
MM20-18 Repair Clamps & Appurtenances	\$ 10,000.00		\$ 10,000.00			\$0.00	\$10,000.00			In Progress



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

2020 Client Monthly Operations Report

Lambton Area Water Supply System

April 30, 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

April: None

Maintenance, Operations & Distribution Works Summary 2020

Maintenance

April:

Date	(P)reventative Capital Major Mtc (C)orrective	Description
April 1	P	Completed annual inspection of air handling units at West Lambton Pumping Station.
April 1	P	Completed annual inspection of Ross PRV at West Lambton Pumping Station.
April 1	P	Completed monthly maintenance on fluoride analyzer.
April 2	P	Completed monthly inspection of eyewash and safety showers at the water treatment plant.
April 2	P	Conducting monthly maintenance on online chlorine analyzers at West Lambton Pumping Station.
April 3	P	Conducted monthly inspection of water treatment plant compressors.
April 3	P	Completed monthly maintenance on pH probes at the water treatment plant.
April 3	P	Completed annual inspection of emergency life ring at the water treatment plant.
April 6	P	Completed annual inspection of air handling units at the water treatment plant.
April 6	P	Completed annual inspection of pressure relief valve in the high lift room for valve 32.
April 6	P	Completed annual inspection of pressure relief valve in the

		high lift room for valve 36.
April 6	P	Completed annual inspection of filter inlet channel sluice gates.
April 6	P	Completed semi-annual inspection of Highlift pumps 3 and 6.
April 7	P	Completed annual inspection of reservoirs at West Lambton Pumping Station.
April 7	P	Completed monthly maintenance on all chlorine analyzers at the water treatment plant.
April 7	P	Conducted annual exercise and inspection of valve house valves at West Lambton Pumping Station.
April 8	P	Completed monthly inspection of travelling screens at the water treatment plant.
April 9	P	Conducting monthly maintenance on Station 5 and all filter effluent turbidity units.
April 14	P	Conducted monthly maintenance on Station 1, 3 and 7 turbidity units.
April 14	P	Conducted monthly maintenance on lab turbidity unit.
April 14	P	Conducted monthly maintenance on RMS turbidity units.
April 14	P	Conducted monthly maintenance on pH probes for Stations 1 and 5.
April 15	P	Conducted monthly maintenance on pH probes for Stations 2.
April 16	P	Conducted monthly maintenance on streaming current meters.
April 16	P	Completed monthly maintenance on pocket chlorine testers.
April 17	P	Conducted quarterly test of critical control point alarms.
April 17	P	Replaced reagents and buffers on the fluoride monitor at the water treatment plant.
April 21	P	Completed annual inspection of air handling units at the water treatment plant.
April 17	Capital	Meeting in regards to generator switchgear.
April 20-21	Capital	Reviewing PLC/HMI code for radio project.
April 21	P	Conducted annual test of overflow at Forest Tower.
April 22	P	Tested water treatment plant polymer system as per SOP.
April 22	P	Conducted semi-annual inspection of Chambers 5, 9, 10 and 11.
April 23	P	Switched Station 2 to run off of East Low Lift Header.
April 23	P	Conducted annual meter calibration of alum flow meters.
April 23	P	Conducted annual flow meter calibration of filter effluents.
April 23	P	Cleaned out filter inlet channels.
April 24	C	Repaired sump at Chamber 10.
April 24	P	Completed annual inspection of flow control on meter chamber 7.
April 24	P	Completed monthly maintenance on chlorine analyzer at East Lambton Pumping Station.
April 24	P	Completed monthly inspection of vacuum priming system at

		East Lambton Pumping System.
April 24	P	Conducted generator test at the water treatment plant.
April 27	P	Conducted monthly generator test at West Lambton Pumping Station.
April 27-28	P	Completed monthly inspection of floc gear drives at the water treatment plant.
April 28	P	Completed annual inspection of flow control on meter chamber 1, 2, 3, and 4.
April 29	P	Conducted monthly test of East Lambton Pumping Station generator.
April 29	C	Alberts Generator Service on site at East Lambton Pumping Station to troubleshoot startup issues with generator.
April 29	P	Conducted annual test of overflow at Watford Tower.
April 30	Major Mtc	Low lift cleanout with Badger.

Operations and Compliance

April:

April 1	Using treated flow instead of raw water flow to calculate CT as per MECP suggestions from inspection.
April 1	Review stock of health and safety equipment.
April 1	Added backwash total flow to monthly Client WISKI report.
April 2	Having to manually close filter to waste for Filter #6 as it will not reach closed setpoint limit.
April 3	Ran Pump 5 at West Lambton Pumping Station.
April 3	Prepare contingency to deal with possible COVID 19 staff shortages.
April 6	TSS sample taken from the Residual Management System final effluent.
April 6	Ran Pump 5 at West Lambton Pumping Station.
April 7	Winter 2019 lead sampling complete.
April 7	Pre chlorine pump #2 failed with P+. Pump and panel was reset.
April 8	Both pre chlorine pumps failed with P+. Both pumps and panel was reset.
April 9	South clearwell pump 2 failed with P+. Pump and panel was reset.
April 10	Both pre chlorine pumps failed with P+. Both pumps and panel was reset.
April 12	Both pre chlorine pumps failed with P+. Both pumps and panel was reset.
April 14	Lead and lag Forest and Watford pumps switched at East Lambton Pumping Station.
April 14-20	Completed annual review of O&M Manual at the water treatment plant.
April 16	Lead reports completed and sent.
April 21	Pre chlorine pump #2 failed with P+. Pump and panel was reset.
April 22	Created new chain of custody for COVID 19 due to loss of sample locations.
April 24	Conducted annual review of operations plan.
April 24	Pre chlorine pump #2 and 3 failed with P+. Pump and panel was reset.
April 26	South clearwell pump 1 and 2 failed with P+. Pump and panel was reset.

Distribution

April:

April 1	On site for third party work for bore work on LaSalle Line.
April 2	On site for third party work on Zion Line in Watford for daylighting of LAWSS watermain.
April 3	Third party work in Watford on Nauvoo Rd.
April 4	After hours emergency locate 2020150002 on Christina and Errol Rd.
April 15	Site meet on highway 40 and Whitebread Line
April 15	Valve operations and chamber checks in Lambton Shores and Plympton Wyoming.
April 16	Chamber checks and valve operations on Lakeshore.
April 21	Site meet on Venetian Blvd. for daylighting of LAWSS watermain.
April 21-22	Chamber checks on Fleming Rd in Plympton Wyoming.
April 24	Chamber checks and valve operations on Plowing Match.
April 24	Isolated and bagged out of service hydrant #172 due to leak.
April 27	Onsite for third party work with Bluewater Plumbing in Brights Grove.
April 28	Chamber checks and valve operation on Plowing Match complete.
April 30	Meter reads complete.
April 30	Valve operations and chamber checks on Zion Line in Warwick.

Call Outs 2020

April: Call out April 16th for SCADA failure at the water treatment plant.

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	131								

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	240								

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 was due April 30, 2020. Q2 due July 30, 2020.

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

Health & Safety Work Order Summary by Facility

Start Date: 2020-04-01

End Date: 2020-04-30

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)	6	6	5	6.50	246.45	85.00%	83.33%	1.67%
		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)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		Total			7	7	6	7.50	284.24	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: 2020-04-30

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)	17	17	16	27.00	1121.98	85.00%	94.12%	-9.12%
		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)	3	3	3	3.00	113.37	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	22	22	21	33.00	1367.04	85.00%	95.45%	-10.45%

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: 2020-04-01
End Date: 2020-04-30
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)	1	1	1	7	305.77	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
		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)	2	2	1	1	37.11	0	0	0	0	0	1	1	1	4	197.7
		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)	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
		Lambton Area Water Treatment Plant (5544)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Grand Total			3	3	2	8	342.88	0	0	0	0.00	0.00	1	1	1

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Work Order Summary by Facility

Start Date: 2020-04-01
End Date: 2020-04-30
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)	3	3	0	0	0	4	4	4	10.75	386.65	0	0	0	0	0	85%	62.5%	22.49%
		5544, East Lambton PS (5544-WPEL)	4	4	4	5.5	215.57	2	2	2	9	301.79	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	3	158.94	2	2	2	4	166.39	0	0	0	0	0	85%	100%	-15.0%
		5544, Lambton Area WTP (5544-WTLA)	49	49	46	129.25	5569.01	17	17	13	1511	42167.52	0	0	0	0	0	85%	88.40%	-3.40%
		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)	21	21	12	19.5	746.59	2	2	2	12.5	476.92	0	0	0	0	0	85%	60.86%	24.13%
		5544, West ST.Clair Distribution (5544-WDWS)	2	2	0	0	0	3	3	3	6	250.6	0	0	0	0	0	85%	60%	25%
		Lambton Area Water Treatment Plant (5544)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
Grand Total			81	81	64	157.25	6690.11	30	30	26	1553.25	43749.87	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: 2020-04-30
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)	2	2	2	19.25	840.67	0	0	0	0	0	2	2	2	16	3764.87
		5544, East Lambton PS (5544-WPEL)	1	1	1	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)	12	12	7	155.25	7765.78	0	0	0	0	0	1	1	1	4	197.7
		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 Strn (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			19	19	13	195	9473.59	0	0	0	0.00	0.00	4	4	4	26.00	4174.19

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Work Order Summary by Facility

Start Date: 2020-01-01
End Date: 2020-04-30
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	68.5	4001.82	85%	100%	-15.0%
		5544, East Lambton Distribution (5544-WDEL)	6	6	0	0	0	16	16	16	37.75	1418.35	0	0	0	0	0	85%	76.92%	8.076%
		5544, East Lambton PS (5544-WPEL)	22	22	21	33.25	1668.7	8	8	8	30.25	1133.28	0	0	0	0	0	85%	96.77%	-11.7%
		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)	8	8	8	16	755.15	8	8	8	19.5	734	0	0	0	0	0	85%	100%	-15.0%
		5544, Lambton Area WTP (5544-WTLA)	141	141	131	423.25	18450.51	56	56	51	6300	182734.1	4	4	2	23	17209.88	85%	90.47%	-5.47%
		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)	39	39	30	44.5	2007.84	8	8	8	73.25	3592	0	0	0	0	0	85%	81.63%	3.367%
		5544, West ST.Clair Distribution (5544-WDWS)	3	3	0	0	0	12	12	11	28	1138.75	1	1	0	10.5	651.94	85%	70.58%	14.41%
Grand Total			219	219	190	517	22882.2	108	108	102	6488.75	190750.4	6	6	2	102	21863.64	85%	100%	-15.0%

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**Ontario Clean Water Agency
Time Series Info Report**

Report extracted 05/08/2020 09:31

From: 01/01/2020 to 30/04/2020

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	04/2020	Total	Avg	Max	Min					
Coagulation/Floculation / Coagulant Dosage-Calculated - mg/L													
Max IH	26.437	30.355	29.818	28.267			30.355						
Mean IH	20.802	24.673	25.189	23.287		23.47							
Min IH	15.602	20.415	20.129	16.333				15.602					
Coagulation/Floculation / Coagulant Used - kg													
Max IH	1241.6	1459.2	1638.4	1190.4			1638.4						
Mean IH	964.129	1110.069	1104.103	979.2		1038.704							
Min IH	691.2	870.4	793.6	780.8				691.2					
Total IH	29888	32192	34227.2	29376	125683.2								
Coagulation/Floculation / Coagulant Volume Used - m³													
Max IH	0.97	1.14	1.28	0.93			1.28						
Mean IH	0.753	0.867	0.863	0.765		0.811							
Min IH	0.54	0.68	0.62	0.61				0.54					
Total IH	23350	25150	26740	22950	98190								
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	1.83	1.63			1.83						
Mean OL	1.359	1.372	1.434	1.424		1.397							
Min OL	0	0	0	0				0					
Filter Backwash / Backwash Volume - m³													

Total IH	62545	59502	62054	53256	237357							
Max IH	2988	4208	3666	2702			4208					
Mean IH	2017.581	2051.793	2001.742	1775.2		1961.628						
Min IH	1208	1200	0	602					0			
HFS / Fluoride Dosage - mg/L												
Max IH	0.63	0.633	0.647	0.645			0.647					
Mean IH	0.55	0.556	0.555	0.554		0.554						
Min IH	0.477	0.516	0.433	0.491					0.433			
HFS / Fluoride Used - l												
Max IH	88.823	94.553	91.689	88.823			94.553					
Mean IH	83.185	82.796	81.437	77.934		81.342						
Min IH	68.766	77.361	63.295	68.762					63.295			
Total IH	2578.73	2401.087	2524.546	2338.016	9842.38							
HFS / HFS (kg) - kg												
Max IH	108.364	115.355	111.86	108.364			115.355					
Mean IH	101.486	101.011	99.353	95.079		99.237						
Min IH	83.895	94.38	77.22	83.89					77.22			
Total IH	3146.051	2929.326	3079.946	2852.38	12007.7							
HFS / Treated Water Fluoride Residual - mg/L												
Max OL	2	0.81	0.92	0.8			2					
Mean OL	0.544	0.63	0.692	0.666		0.633						
Min OL	0	0.23	0.51	0.55					0			
Post Disinfection / Chlorine Dosage - mg/L												
Max IH	2.078	1.897	2.157	2.232			2.232					
Mean IH	1.449	1.561	1.676	1.599		1.571						
Min IH	0.822	1.03	1.288	0.933					0.822			
Post Disinfection / Hypochlorite Dosage - mg/L												
Max IH	17.316	15.809	17.977	18.596			18.596					
Mean IH	12.072	13.011	13.971	13.325		13.094						
Min IH	6.854	8.586	10.733	7.779					6.854			
Post Disinfection / Hypochlorite Used - kg												
Max IH	777.85	680.325	1083.35	707.35			1083.35					
Mean IH	559.262	585.231	615.927	560.867		580.401						
Min IH	254.975	358.375	440.625	420.65					254.975			
Total IH	17337.13	16971.7	19093.75	16826	70228.58							
Post Disinfection / Hypochlorite Volume-Total - m³												
Max IH	0.662	0.579	0.922	0.602			0.922					
Mean IH	0.476	0.498	0.524	0.477		0.494						
Min IH	0.217	0.305	0.375	0.358					0.217			
Total IH	14755	14444	16250	14320	59769							

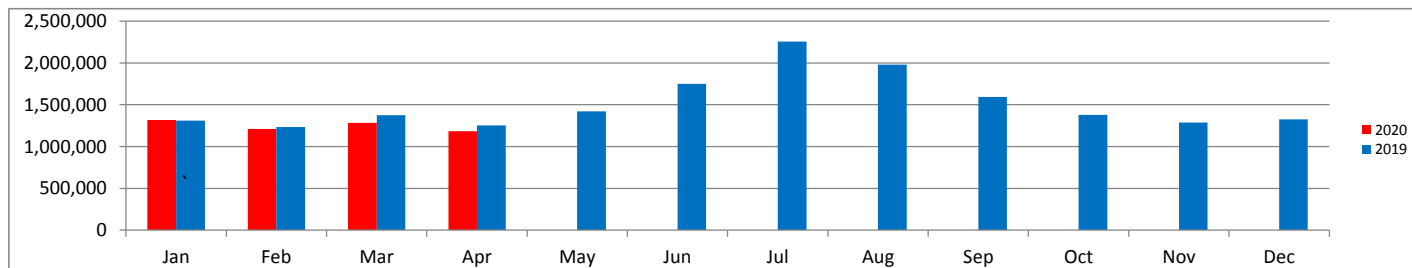
Post Disinfection / Station 7 Cl Residual: Free - mg/L																			
Max OL	5	1.75	3.1	1.84				5											
Mean OL	1.608	1.636	1.816	1.664			1.681												
Min OL	0	1.45	1.45	0								0							
Raw Water / Background - cfu/100mL																			
Max Lab	10	5	0	0				10											
Mean Lab	2.5	1.25	0	0			0.882												
Min Lab	0	0	0	0								0							
Raw Water / Conductivity - µS/cm																			
Max IH	223.4	235.2	231.1	229.8				235.2											
Mean IH	220.597	226.503	222.677	222.918			223.121												
Min IH	217.1	217.6	217.8	218.65								217.1							
Raw Water / E. Coli: EC - cfu/100mL																			
Max Lab	0	0	0	0				0											
Mean Lab	0	0	0	0			0												
Min Lab	0	0	0	0								0							
Raw Water / Raw Flow Daily - m³/d																			
Total IH	1432917	1305322	1363013	1269958	5371210														
Max IH	51462	49347	68210	54076				68210											
Mean IH	46223.13	45011.1	43968.16	42331.93			44390.17												
Min IH	37203	38233	26615	30479								26615							
Raw Water / Raw Flow Rate - l/s																			
Max IH	595.62	571.15	789.47	600.16				789.47											
Mean IH	534.99	523.03	508.89	482.67			512.47												
Min IH	430.59	442.51	308.04	352.77								308.04							
Raw Water / Raw Water Turbidity - NTU																			
Max OL	14	11.4	23	6.6				23											
Mean OL	2.445	3.495	3.194	1.747			2.72												
Min OL	0.26	0.51	0.587	0.41								0.26							
Raw Water / Raw Water pH - ---																			
Max IH	8.27	8.16	8.13	8.16				8.27											
Mean IH	8.114	8.051	8.051	8.065			8.071												
Min IH	8.02	7.98	7.96	7.9								7.9							
Raw Water / Temperature - °C																			
Max IH	10	8	12	11.7				12											
Mean IH	7.466	6.083	9.203	9.432			8.067												
Min IH	5.5	3	5.9	6.87								3							
Raw Water / Total Coliform: TC - cfu/100mL																			
Max Lab	0	0	0	0				0											
Mean Lab	0	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		1058808		4216174				
Treated Water / Flow: Total of All Sources - m³/d														
Max IH		48147		47888		47433		45327			48147			
Mean IH		44815.48		44078.86		43484.03		41675.97		43519.43				
Min IH		37737		38449		35292		38147				35292		
Total IH		1389280		1278287		1348005		1250279		5265851				
Treated Water / HPC - cfu/mL														
Max Lab	<	10	<	40	<	10	<	10			<	40		
Mean Lab	<	10	<	17.5	<	10	<	10		<	11.765			
Min Lab	<	10	<	10	<	10	<	10				<	10	
Treated Water / Total Coliform: TC - cfu/100mL														
Max Lab		0		0		0		0			0			
Mean Lab		0		0		0		0		0				
Min Lab		0		0		0		0			0			
Treated Water / Turbidity - NTU														
Max OL		0.094		0.11		0.741		0.1			0.741			
Mean OL		0.069		0.069		0.082		0.072		0.073				
Min OL		0.052		0.052		0.048		0.05				0.048		
West Lambton Booster Station / Cl Residual: Outlet Free - mg/L														
Max OL		4.98		1.88		2.22		2.26			4.98			
Mean OL		1.666		1.694		1.735		1.63		1.681				
Min OL		0		0		0		0			0			
Zebra Mussel Control / Chlorine Dosage - mg/L														
Max IH		1.251		1.294		1.283		1.49			1.49			
Mean IH		1.057		1.137		1.143		1.125		1.115				
Min IH		0.972		0.971		1.039		0.83				0.83		
Zebra Mussel Control / Cl Residual: Free - mg/L														
Max IH		0.66		0.67		0.71		0.71			0.71			
Mean IH		0.597		0.599		0.634		0.61		0.61				
Min IH		0.46		0.44		0.51		0.42				0.42		

Zebra Mussel Control / CI Residual: Total - mg/L																	
Max IH	0.84	0.82	0.86	0.83				0.86									
Mean IH	0.759	0.754	0.785	0.746			0.761										
Min IH	0.61	0.6	0.67	0.53								0.53					
Zebra Mussel Control / Hypochlorite Dosage - mg/L																	
Max IH	10.423	10.787	10.696	12.413				12.413									
Mean IH	8.812	9.472	9.521	9.375			9.292										
Min IH	8.102	8.095	8.656	6.916								6.916					
Zebra Mussel Control / Hypochlorite Used - kg																	
Max IH	470	492.325	667.4	504.075				667.4									
Mean IH	407.081	425.512	418.262	393.938			411.104										
Min IH	339.575	358.375	278.475	312.55								278.475					
Total IH	12619.5	12339.85	12966.13	11818.15	49743.63												
Zebra Mussel Control / Hypochlorite Volume-Total-1 - m³																	
Max IH	0.4	0.419	0.568	0.429				0.568									
Mean IH	0.346	0.362	0.356	0.335			0.35										
Min IH	0.289	0.305	0.237	0.266								0.237					
Total IH	10740	10502	11035	10058	42335												

LAWSS Flow Summary

Total Flows as of Apr 2020														Year To Date for:	
LAWSS Member		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan - Apr	
Sarnia	2020	776,102	727,623	774,972	747,178	0	0	0	0	0	0	0	0	3,025,876	60.93
	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	18,471	0	0	0	0	0	0	0	0	92,524	1.86
	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	291,512	0	0	0	0	0	0	0	0	1,377,295	27.73
	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	64,989	0	0	0	0	0	0	0	0	242,054	4.87
	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	25,177	0	0	0	0	0	0	0	0	105,862	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	29,760	0	0	0	0	0	0	0	0	122,674	2.47
	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	4966284	
Others													2019	18016202	
Alvinston	2020	6,170	5,675	6,309	5,821	0	0	0	0	0	0	0	0	23,976	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	0.12
	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	1,182,910	0	0	0	0	0	0	0	0	4,996,380	
	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 Apr

Year to Date
Total

LAWSS Members	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan - Apr
City of Sarnial:	776,102	727,623	774,972	747,178	0	0	0	0	0	0	0	0	3,025,876
Point Edward:	27,526	23,425	23,101	18,471	0	0	0	0	0	0	0	0	92,524
St. Clair Township:	387,392	342,521	355,870	291,512	0	0	0	0	0	0	0	0	1,377,295
Plympton/Wyoming:	61,058	58,397	57,610	64,989	0	0	0	0	0	0	0	0	242,054
Lambton Shores:	30,090	24,113	26,482	25,177	0	0	0	0	0	0	0	0	105,862
Watford/Warwick:	30,802	28,896	33,215	29,760	0	0	0	0	0	0	0	0	122,674
	1,312,970	1,204,975	1,271,252	1,177,089	0	0	0	0	0	0	0	0	4,966,284
Others													
Town of Alvinston:	6,170	5,675	6,309	5,821	0	0	0	0	0	0	0	0	23,976
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	1,182,910	0	0	0	0	0	0	0	0	
	1,319,140	1,210,650	1,283,680	1,182,910	0	0	0	0	0	0	0	0	4,996,380

Last Years Data 2019

LAWSS Members	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan - Dec
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: April 2020

Meter num	Meter Location	Read date 30-Apr-20	Last Read date 31-Mar-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	196,418,300	195,235,390	1,182,910			1	1,182,910

Entering Sarnia: 1,182,910

Members Monthly % Used

Leaving Sarnia to LAWSS Members:

Village of Point Edward - Grand Total:	18,471	1.6
St. Clair Township - Grand Total:	291,512	24.8
Plympton/Wyoming - Grand Total:	64,989	5.5
Lambton Shores - Grand Total:	25,177	2.1
Village of Watford/Township of Warwick - Grand Total:	29,760	2.5

Leaving Sarnia to Others:

Town of Alvinston - Grand Total:	5,821
Town of Petrolia - Grand Total:	0
Chatham-Kent Area Water - Grand Total:	0

Metered Consumption: 747,178

Adjustments:

Reason for Adjustment:

City of Sarnia - Total Consumption: 747,178

Leakage rate adjustment 0% 0

City of Sarnia - Grand Total: 747,178 63.5

Overall Grand Total: 1,182,910 100.0



Mark Harris (Operations Manager)

LAWSS Water used by the

Village of Point Edward

For the Month of: April 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					
		30-Apr-20	31-Mar-20	Difference	As Found	As Left	X	Flow	%
CH01	Venetian Vill (Mag)	499,582	497,093	2,490			1	2,490	14.0
CH02	Ven & Exmouth (Mag)	43,714	43,583	131			1	131	0.7
CH03	Michigan & Monk (Mag)	1,125,211	1,111,058	14,153			1	14,153	79.7
CH04	Michigan & Front (Mag)	141,513	140,525	987			1	987	5.6
Metered Consumption:								17,761	100.0

Reason for Adjustment:

Adjustments:

Village of Point Edward - Total Consumption: 17,761

Leakage rate adjustment 4% 710

Village of Point Edward - Grand Total: 18,471



Mark Harris (Operations Manager)

St. Clair Township

For the Month of: April 2020

Meter num	Meter Location	Read date 30-Apr-20	Last Read date 31-Mar-20	Difference	Calibration Adjustments		X	Flow	%
					As Found	As Left			
WL-O	WL High Net Flow - West Lambton	39,413,988	39,133,700	280,288			1	280,288	100.0
3100	Plank Road (3/4)	3,915	3,870	45			1	45	0.0
	Back to Sarnia								
1100	LaSalle & Parkway	9,012	8,980	32			1	32	0.0
1090	LaSalle & Tashmoo	5,057	5,056	1			1	1	0.0
Entering St. Clair Township:								280,333	100.0
Leaving St. Clair Township									
Back to Sarnia:								33	0.0
Chatham-Kent Area Water - Total Consumption:								0	
Metered Consumption:								280,300	100.0
Adjustments:									
St. Clair Township - Total Consumption:								280,300	
Leakage rate adjustment 4%								11,212	
St. Clair Township - Grand Total:								291,512	

Reason for Adjustment:



Mark Harris (Operations Manager)

Township of Plympton / Village of Wyoming

For the Month of: April 2020

Meter num	Meter Location	Read date 30-Apr-20	Last Read date 31-Mar-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	18,614,584	18,493,448	121,136		1	121,136		
Village of Wyoming									
8001	Wyoming	432,670	432,670	0		1	0		
8002	Wyoming	4,359	3,141	1,218		10	12,180		
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: 121,136**Leaving Plympton**

Village of Wyoming: 12,180

Back to Sarnia: 0

Lambton Shores - Total Consumption: 24,209

Watford/Warwick - Total Consumption: 28,616

Town of Alvinston - Total Consumption: 5,821

Town of Petrolia - Total Consumption: 0

Metered Consumption For Plympton: 50,310

Village of Wyoming: 12,180

Reason for Adjustment:

Adjustments:**Plympton/Wyoming - Total Consumption:** 62,490

Leakage rate adjustment 4% 2,500

Plympton/Wyoming - Grand Total: 64,989

Mark Harris (Operations Manager)

LAWSS Water used by the

Lambton Shores

For the Month of: April 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	%
		30-Apr-20	31-Mar-20		As Found	As Left			
7003	Ch07 High Net Flow - Townsend	3,700,563	3,677,468	23,095			1	23,095	
7004	Ch07 Low Net Flow - Townsend	252,670	251,556	1,114			1	1,114	

Metered Consumption: 24,209

Reason for Adjustment:

Adjustments:

Lambton Shores - Total Consumption: 24,209

Leakage rate adjustment 4% 968

Lambton Shores - Grand Total: 25,177



Mark Harris (Operations Manager)

Village of Watford/Township of Warwick

For the Month of: April 2020

Meter num	Meter Location	Read date 30-Apr-20	Last Read date 31-Mar-20	Difference	Calibration Adjustments As Found As Left	X	Flow	%
Entering Watford/Warwick								
9001	Ch10 High Net Flow - London Line	6,849,391	6,806,766	42,625			1	42,625
9002	Ch10 Low Net Flow - London Line	646,398	642,823	3,575			1	3,575
9003	Ch11 High Net Flow - Confederation	1,167,111	1,158,694	8,417			1	8,417
9004	Ch11 Low Net Flow - Confederation	52,236	53,123	-887			1	-887
Leaving Watford/Warwick								
5013	Ch09 High Net Flow - Egremont	2,783,308	2,764,015	19,293			1	19,293
AF	Alvin High Net Flow Totalizer	1,559,592	1,553,771	5,821			1	5,821

Entering Watford/Warwick: 53,730**Leaving Watford/Warwick:** 25,114**Metered Consumption:** 28,616

Reason for Adjustment:

Adjustments:

Watford/Warwick - Total Consumption: 28,616**Leakage rate adjustment 4%** 1,145**Village of Watford/Township of Warwick - Grand Total:** 29,760**Mark Harris (Operations Manager)**

LAWSS Water used by the

Town of Alvinston

For the Month of: April 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	%
		30-Apr-20	31-Mar-20		As Found	As Left			
AF	Alvin High Net Flow Totalizer	1,559,592	1,553,771	5,821			1	5,821	
								<u>Metered Consumption:</u>	5,821
Reason for Adjustment:								<u>Adjustments:</u>	

Town of Alvinston - Total Consumption: 5,821
Leakage rate adjustment 0% 0
Town of Alvinston - Grand Total: 5,821



Mark Harris (Operations Manager)

LAWSS Water used by the

Town of Petrolia

For the Month of: April 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	%
		30-Apr-20	31-Mar-20		As Found	As Left			
PF	Petrolia Flows	139,669	139,669	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 Water

For the Month of: April 2020

Meter num	Meter Location	Read date	Last Read date	Difference	Calibration Adjustments		X	Flow	%
		30-Apr-20	31-Mar-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)**

Report No.:	2020-05-03
Report Page:	Page 1 of 3
Meeting Date:	May 28, 2020
File No.:	



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

From: Clinton Harper
General Manager

Subject: Information Reports (May 28, 2020)

Recommendation

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

Items:

WLPS Special Valve Project Update

At the February 2020 meeting of the LAWSS Joint Board of Management, OCWA Engineering Group was awarded the WLPS Special Valve Project. The work included project development, tendering, project management and commissioning work needed to address the leaking 36" back pressure sustaining (BPS) valve currently in service at the WLPS.

OCWA's work is ongoing. A project scope has been established and OCWA is proceeding with tendering of the project. It is expected that a recommendation to award the project will be presented at the June meeting of the LAWSS Joint Board of Management.

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.

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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 monitor 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 lots. Controls have been placed in a way that does not hinder normal or emergency access to the Water Treatment Plant.

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 perspective 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 at a time(including the tour facilitator). 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

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This report was prepared by Clinton Harper, LAWSS General Manager

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

From: Clinton Harper
General Manager

Subject: Webcasting and Video Archiving of meetings of LAWSS Board

Recommendation

The following options are provided for webcasting and video archiving of future meetings of the LAWSS Board.

Background:

At the April 30, 2020 meeting of the LAWSS Joint Board of Management the following motion was carried.

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

Comments:

Four options for webcasting and video archiving are provided in Appendix A. Options are ranked from least expensive to most expensive. The four options provided in Appendix A contain both a webcasting and video archiving component.

Consultation:

As LAWSS meeting management software provider, eScribe was asked to provide a quote for the webcasting and video archiving features that are associated with their service.

Financial Implications:

The financial implications will vary depending on which option is selected by the Joint Board of Management. 2020 Budget does not contain a provision for *webcasting and video archiving of meeting of the LAWSS Joint Board of Management*

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This report was prepared by Clinton Harper, LAWSS General Manager

Attachment(s): Appendix A

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Appendix A:

<u>Option #1- Staff</u> <ul style="list-style-type: none"> Live video streaming directly to YouTube <ul style="list-style-type: none"> Videos hosted on YouTube (public server) Videos subject to the American Patriot Act 	Setup Fee: \$0 Annual Fee \$240 (Zoom Subscription)
<u>Option #2- eScribe's Video Manager:</u> <i>In addition to what staff can provide in-house this option includes the following features:</i> <ul style="list-style-type: none"> Video imbeds into HTML Agenda on website directly from YouTube. Agenda item timestamps automatically linked to corresponding video timestamps. 	Setup Fee: \$1,350 Annual Fee: \$1,950
<u>Option #3- eScribe's Webcasting Lite:</u> <ul style="list-style-type: none"> Video embeds into HTML Agenda on website for eScribe server Agenda item timestamps links to recording automatically IP camera and access to eScribe streaming service Data is stored on eScribe server in Canada LAWSS retains all Intellectual property rights 	Setup Fee: Waived (\$2350) Annual Fee: \$7,450+ per meeting fee (TBD)
<u>Option #4- eScribe's Webcasting Plus:</u> <i>In addition to the features of Webcasting Lite this option provides the following features:</i> <ul style="list-style-type: none"> Specialized encoding and archiving equipment provided Options for visual features when transition between agenda items. Options for connecting a presentation computer into feed. 	Setup Fee: \$3,375 Annual Fee: \$11,450

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

From: Clinton Harper
General Manager

Subject: WLPS Special Valve Project Update

Recommendation

It is recommended that the LAWSS Joint Board of Management increase the 2020 budget for the "WLPS 36" Ross Valve Project" to \$179,000 and that OCWA Engineering be directed to proceed to the tendering phase of the project.

Background:

The West Lambton Pumping Station is a booster pumping station located on Indian Road. It consists of pumping, above ground storage and re-chlorination equipment. The station is primarily used as an intermediate storage facility providing pressure stabilization and system redundancy.

A 36" backpressure sustaining valve is utilized in the station's operation. The existing valve is leaking and needs to be isolated and removed from the operation. Once removed, it can be rebuilt or replaced as necessary. A preliminary investigation was completed at the beginning of 2019 to explore how the valve could be isolated and to assist in developing an operational narrative for the temporary system configuration. The investigation revealed a failure with the isolation valve immediately upstream of the project target valve.

The original 36" backpressure sustaining valve project scope would have required heavy coordination with OCWA's operational staff. The isolation valve failure has further complicated this project. At staff's recommendation, OCWA Engineering group was hired to finalize the project scope, tender the project, provide project management and oversee final commissioning at the February 20, 2020 meeting of the LAWSS Joint Board of Management.

Comments:

On May 21, 2020 a proposal was presented to LAWSS staff that provided a recommended scope of work for this project. In the proposal it is recommended that

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LAWSS proceeds with the installation of a new 36" Singer single chamber diaphragm valve. The recommendation was reached by building a comparison between a rebuild of the existing Ross Valve against three new valves. The 36" Singer single chamber diaphragm valve is the clear choice in capital cost, suitably and maintainability standpoint.

The next phase of the project involves project tendering and contractor selection. With the Board's approval on the recommendations of this report, OCWA will be asked to proceed into the tendering Phase. A recommended contractor will be presented for Board approval at an upcoming regular meeting.

Consultation:

The LAWSS General Accountant and OCWA Operational Group were consulted in the development of this report.

Financial Implications:

The LAWSS Joint Board of Management provided a budget of \$70,000 in 2020 to complete this project. For the challenges indicated in the report the cost was expected to increase. This increase was indicated to the Board in February when OCWA Engineer Group was hired.

OCWA was provided a budgetary estimate of \$179,000 for the project. This price includes the \$25,600 previously approved for OCWA's role in the project and a 10% Contingency allowance.

This estimate is \$109,000 above the budgeted amount. If the recommendation is approved, funds will be transferred from reserve to cover the increased cost.

This report was prepared by Clinton Harper, LAWSS General Manager

Attachment(s): none

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

From: Clinton Harper
General Manager

Subject: Condition Assessment- Port Lambton & Watford Standpipe (SP)

Recommendation

It is recommended that;

1. CIMA+ is hired to complete a condition assessment of Port Lambton and Watford Standpipe for quoted price,
2. During the condition assessment at Port Lambton and Watford SP a Finite Element Analysis is completed for the additional cost indicated.

Background:

In April 2019, competitive bids were sought for condition assessments for all LAWSS elevated storage. Based on this effort, at the recommendation of staff, the LAWSS Board hired CIMA+ to complete a condition assessment of the WLPS Reservoirs and Indian Road Water Tower. Work was completed within the approved 2019 budget amount of \$30,000.

Comments:

In 2020 LAWSS plans on completing a similar inspection of the Port Lambton and Watford SP. At LAWSS request, CIMA+ reviewed their 2019 price and provided an updated price of \$26,730 for the two locations. This amount is \$1,209 greater than what was quoted in 2019 and was reportedly driven by rate changes of respective CIMA+'s team members selected for this work. The updated amount is less than what was provided by their competitor in 2019 and within the \$30,000 budgeted in 2020.

At the end of 2019, LAWSS was approached by multiple internet service providers (ISP) interested in installing telecommunications equipment on LAWSS elevated storage. Specifically, LAWSS received multiple requests for Port Lambton SP, Indian Road SP, Forest SP and Watford SP. Further information was needed before permitting the installation of multiple ISP's at a single tower location in the form of a Finite Element Analysis (FEA). An FEA will determine whether the roof meets current Ontario Building

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Code requirements and whether the addition of proposed antenna loads will result in the need for any roof reinforcement.

CIMA+ was asked to provide a quote to include overseeing the FEA and incorporating it into their condition assessment at each location. CIMA+ supplied a quote of an additional \$18,100.00 for both locations.

Consultation:

OCWA Operational Staff was consulted in the development of this report.

Financial Implications:

The condition assessments indicated were quoted within the 2020 budget of \$30,000. The combined cost of the condition assessments and finite element analysis exceed the approved budget for this project by \$14,830. If the Board wishes to proceed with the finite element analysis there will be an opportunity to offset this additional cost by gradually passing it into the ISPs at a negotiated rate.

This report was prepared by Clinton Harper, LAWSS General Manager

Attachment(s): none

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

From: Clinton Harper
General Manager

Subject: WTP Reservoir Update #2

Recommendation

It is recommended that the LAWSS Joint Board of Management receive this report as information and defer matter to the 2021 budget deliberation.

Background:

After a leak was identified late in 2019 the LAWSS Board authorized up to \$50,000 for an emergency inspection of the WTP's 67,000m³ reservoir. The reservoir serves an important role in the treatment process. Without the reservoir the WTP is unable to provide the required amount of chlorine contact time (CT) for disinfection. OCWA and LAWSS worked closely with the MECP to develop an operational narrative that ensured water quality was maintained through the maintenance period. LAWSS and OCWA kept an open dialog with the Provincial regulators throughout the maintenance event.

Comments:

As planned, on March 2, 2020 the WTP reservoir was taken offline and the west cell was completely drained to allow for a thorough inspection. A final inspection report was provided to LAWSS staff on April 30, 2020. The inspection identified several items that require remedial action but suggested that the structure was in relatively good condition. Special compounds used to seal concrete joints will break down over time. This normal wear and tear was submitted as the cause of the leak previously identified. The report provided recommendations on how to extend the reservoirs service life by implementing remedial actions within a 2-3 year or within a 5-10 year timeframe.

The WTP reservoir was designed and built in the early 1970s with two cells installed in series. At that time, it was not considered necessary to build the system to allow for flow independently through the individual cells. Increased requirements around CT were implemented by the Province in the early 2000s. As a result, the WTP reservoir underwent a major retrofit in 2003 to install baffling designed to satisfy this requirement. The retrofit did not address the in-series configuration. Since the increased

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CT requirements went into place and the subsequent retrofit, inspections of the reservoir have been primarily completed using divers or remotely operated vehicles. This recent call to drain the reservoir for a more detailed inspection revealed a critical maintenance issue with the system that must be addressed before the maintenance schedule in the inspection report can be implemented. Specifically, due to the in-series configuration, it is not possible to bring the reservoir offline for an extended period of time without severely impacting the operation of neighbouring businesses and homes.

Consultation:

Due to the CT issue, an alternative operational narrative was designed by OCWA Operational Staff in consultation with LAWSS. The narrative was finally reviewed and approved by the MECP. The City of Sarnia Public Works Department and the affected business were accommodating for the duration of the work. Throughout the inspection an open dialog was necessary and maintained between all parties. The final inspection report was finalized in consultation with OCWA Operational Staff.

Financial Implications:

On December 5, 2019 the LAWSS Board approved up to \$50,000 to cover the cost of decommissioning, cleaning, inspection, disinfection and recommissioning for the reservoir for this purpose. The project was completed for \$39,242. This cost included an attempted spot repair at the location of the leak within the reservoir.

The financial impact of the report's findings will be presented at the 2021 Budget Deliberation. Staff will be recommending that the Capital Plan be adjusted to accommodate the maintenance and repair schedule identified in the inspection report.

This report was prepared by Clinton Harper, LAWSS General Manager

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

From: Clinton Harper
General Manager

Subject: Treatment Investigations Update

Recommendation

It is recommended that the LAWSS Joint Board of Management postpone the Municipal Impact Study for one year to allow the City of Sarnia to complete an additional year of sampling.

Background:

Late in 2018, the City of Sarnia began a 3-year interim data collection period focused on verification sampling. The sampling was outlined in their Lead Reduction Plan (LRP) prepared by Jacob's and accepted by the Ministry of Environment Conservation and Parks (MECP).

In addition to the verification sampling, the City's LRP included treatment investigations at the LAWSS water treatment plant (WTP). The intent of the treatment investigations are to ensure the LAWSS WTP is prepared for corrosion control if the City's interim sampling indicates that lead service line removal cannot be achieved in a reasonable timeframe.

In December 2019, the City of Sarnia Engineering Department reported to City of Sarnia Council the results for the first year of sampling. Attached is the report received by City of Sarnia Council. In summary, the sampling results indicate that full removal of all lead service lines is expected to be achievable in a reasonable timeframe within the City. The number of lead service lines identified in the first-year sampling was in fact substantially lower than the 50% assumption used in LRP development that it was suggested that the treatment investigations proposed at LAWSS WTP be postponed by 1 year.

Comments:

In January 2020, LAWSS contacted the MECP and requested a meeting to discuss how the MECP would receive a recommendation to postpone treatment investigations by 1

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year. A teleconference meeting between all groups was held on January 29th. At this meeting, the MECP requested that an effort be made by LAWSS to determine how previous lead testing had been completed in the other municipalities serviced by LAWSS. With OCWA's assistance, this information was provided back to the MECP on February 11, 2020. The additional information that was provided by OCWA further reinforced the original request to allow for a 1-year delay to treatment investigations.

On February 18, 2020 a response was received from the MECP that was not in favor of the postponement beyond 2020. At the February meeting of the LAWSS Joint Board of Management the project was awarded to Jacobs and an upset limit of \$113,000 was established for the project.

Prior to LAWSS signing a contract with Jacobs, the City of Sarnia was able to complete additional discussions with the MECP. The discussion resulted in the MECP's acceptance of the postponement of the Municipal Impact Study until 2021 to allow the City to complete an additional years worth of sampling.

Consultation:

This report was prepared in consultation with OCWA Operational Staff, The City of Sarnia and the MECP.

Financial Implications:

The 2020 approved budget includes \$113,000 for a Municipal Impact Study that is no longer required until 2021.

This report was prepared by Clinton Harper, LAWSS General Manager

Attachment(s): MECP Letter Re: Postponement of Municipal Member Impact Study Until 2021. Dated may 12, 2020

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

From: Clinton Harper
General Manager

Subject: Class A Energy Customer Election Deadline (June 15, 2020)

Recommendation

It is recommended that the LAWSS Board elect into the Industrial Conservation Initiative program as a Class A electrical customer for the billing period for July 1, 2020 to June 30, 2021.

Background:

The Industrial Conservation Initiative ("ICI") was modified January 1, 2017 to allow customers, like LAWSS, with average monthly electrical demand of 1 MW or greater to participate. Customers of LAWSS' demand size need to "elect" in to become a class A pricing customer during the annual election period. If election is not signed during that time, LAWSS will return to Class B pricing for the next pricing period.

Comments:

Pricing is based on demand during the 5 provincial demand peaks during the measurement period. Electing into Class A is ideal for LAWSS because the facility's relative flexibility of operation allows for the largest savings. The deadline for eligible customers is June 15, 2020.

Consultation:

This report was prepared in consultation with Bluewater Power and OCWA Operational Staff.

Financial Implications:

The amount that is saved is highly variable and largely dependant of the Operator's ability to identify and react to provincial energy demand. The amount of savings realized since the initial LAWSS opt-in is presented in Table #1.

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Table #1			
Year	Period	Annual Net Savings (Class A versus Class B)	Cumulative Net Savings
1	July 1, 2017 – June 30, 2018	\$268,655.61	
2	July 1, 2018 – June 30, 2019	\$345,272.55	\$613,928.16
3	July 1, 2019 – April 30, 2020 May 1, 2020 – June 30, 2020	\$460,363.44 N/A	\$1,074,291.60
4	July 1, 2020 – June 30, 2021	Current Election Period	

This report was prepared by Clinton Harper, LAWSS General Manager

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