

# AGENDA

## Joint Board of Management Meeting



Thursday, July 30, 2020  
12:00 pm

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### 1. Call to Order

- a. Disclosure of Pecuniary Interest

### 2. Adoption of Minutes

*A copy of the minutes for the Thursday, June 25, 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, June 25, 2020 meeting minutes."

### 3. Consent Items

Moved By \_\_\_\_\_

Seconded By \_\_\_\_\_

"That the LAWSS Joint Board of Management **RECEIVE** as information the May 2020 Financial Statements, June 2020 Operational Statements and Flow Summary Sheets, along with the staff Information Report, dated July 30, 2020."

- a. Monthly Financial Statements

*The May 2020 LAWSS budget statement and cash balance sheets are attached.*

- b. Monthly Operational Statement - June 2020

*The June 2020 Monthly Operation Reports are attached.*

- c. Information Reports

- 1. June 2020 Flow Summary Sheets

## 2. Information Reports (July 30, 2020)

### 4. Items for Discussion

#### a. 2020 Major Maintenance Program- Project Substitution Request

Moved By \_\_\_\_\_

Seconded By \_\_\_\_\_

"That the LAWSS Joint Board of Management **RECEIVE** staff report subject, "2020 Major Maintenance Project Substitution Request" and **APPROVE** the changes to the 2020 Major Maintenance Program outlined within."

#### b. WLPS Special Valve Project- Contractor Selection

Moved By \_\_\_\_\_

Seconded By \_\_\_\_\_

"That the LAWSS Joint Board of Management **RECEIVE** staff report subject, "WLPS Special Valve Project- Contractor Selection" and **AWARD** Dielco Industrial Contractors Ltd. with project for replacement of 36" Ross Valve for the quoted amount of \$152,750+HST."

#### c. Supervisory Control and Data Acquisition (SCADA) Master Plan- Consultant Selection

Moved By \_\_\_\_\_

Seconded By \_\_\_\_\_

That the LAWSS Joint Board of Management **RECEIVE** staff memo subject, "Supervisory Control and Data Acquisition (SCADA) Master Plan- Consultant Selection" and **AWARD** Eramosa with RFP 20-01 SCADA Master Plan and Associated Works for the quoted amount of \$95,534.25+HST."

#### d. Engineering Design and Project Management for Main Plant HVAC - Consultant Selection

Moved By \_\_\_\_\_

Seconded By \_\_\_\_\_

That the LAWSS Joint Board of Management **RECEIVE** staff memo subject, "Engineering Design and Project Management for Main Plant HVAC - Consultant Selection" and **AWARD** Building Innovation with RFP 20-02 Engineering Design and Project Management for Main Plant HVAC for the quoted amount of \$75,000+HST."

#### e. Fieldgate Network Upgrade - System Selection

Moved By \_\_\_\_\_

Seconded By \_\_\_\_\_

"That the LAWSS Joint Board of Management **RECIEVE** staff report subject, "Fieldgate Network Upgrade - System Selection" and **HIRE** OCWA to execute Remote Flow Monitoring Upgrade Proposal dated July 7, 2020 for the quoted amount of \$84,860+HST and **INCREASE** the appropriate budget amount by \$11,353.54.

f. 2020 and 2021 Meeting Format and Schedule

Moved By \_\_\_\_\_

Seconded By \_\_\_\_\_

"That the LAWSS Joint Board of Management **RECEIVE** as information staff report subject, "2020 and 2021 Meeting Format and Schedule".

g. Fuel Storage and Delivery System- Update

Moved By \_\_\_\_\_

Seconded By \_\_\_\_\_

"That the LAWSS Joint Board of Management **RECEIVE** staff report subject, "Fuel Storage and Delivery System- Update" and **APPROVE** additional engineering fees in the amount of \$25,000 to incorporate the fuel system upgrade into the Generator Project, and **DESIGNATE** WELECO as preferred vendor for supply of LAWSS fuel system components/hardware and **INCREASE** overall project budget by \$275,000 to facilitate the permanent upgrade to the existing fuel storage and delivery system."

5. Deferred Matters/Additional Business

6. Confidential

7. Adjournment

Moved By \_\_\_\_\_

Seconded By \_\_\_\_\_

"That the LAWSS Joint Board of Management **ADJOURN** the meeting to its next board meeting held on Thursday, August 27, 2020 at 12pm at the Tourism Sarnia-Lambton Assembly Room, 1455 Venetian Blvd. Point Edward."



## **Minutes**

### **Joint Board of Management Meeting**

Thursday, June 25, 2020  
12:00 pm

#### **Members**

Mayor Bev Hand, Village of Point Edward  
Mayor Steve Arnold, St. Clair Township  
Councillor Margaret Bird, City of Sarnia  
Mayor Jackie Rombouts, Township of Warwick  
Mayor Lonny Napper, Town of Plympton-Wyoming  
Mayor Bill Weber, 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  
David Jackson, City of Sarnia  
Jay Verstraeten, Village of Point Edward  
Mark Harris, OCWA Operational Manager  
Mike Helps, County of Lambton

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**1. Call to Order**

- a. Disclosure of Pecuniary Interest

**2. Adoption of Minutes**

*A copy of the minutes for the Thursday, May 28, 2020 meeting of the LAWSS Joint Board of Management is attached to this agenda.*

Moved by: Mayor Steve Arnold

Seconded by: Mayor Jackie Rombouts

That the LAWSS Joint Board of Management **ADOPT** the Thursday, May 28, 2020 meeting minutes.

Carried

**3. Consent Items**

Moved by: Mayor Steve Arnold

Seconded by: Councillor Margaret Bird

"That the LAWSS Joint Board of Management **RECEIVE** as information the April 2020 Financial Statements, the May 2020 Operational Statements and the May 2020 Summary Sheets, along with the staff Information Report, dated June 25, 2020."

Carried

- a. Monthly Financial Statement - April 2020

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

- b. Monthly Operational Statement - May 2020

*The May 2020 Monthly Operations Report are attached.*

- c. Information Report

1. May 2020 Flow Summary Sheets

2. Information Report (June 25, 2020)

**4. Items for Discussion**

a. Fuel Storage and Delivery System for Diesel Generators at WTP

Moved by: Mayor Steve Arnold  
Seconded by: Mayor Bill Weber

"That the LAWSS Joint Board of Management **RECEIVE** staff report subject, Fuel Storage and Delivery System for Diesel Generators at WTP, dated June 25, 2020, as information and forward the matter to the 2021 budget deliberation".

Carried

b. WTP Main Switchgear & Generator Replacement Project Status Update

Moved by: Mayor Jackie Rombouts  
Seconded by: Mayor Lonny Napper

"That the LAWSS Joint Board of Management **RECEIVE** report titled, WTP Main Switchgear & Generator Replacement Project, dated June 25, 2020, as information and **ALLOW** staff to proceed to the tendering phase of the General Contractor portion of the project."

Carried

c. 2021 Preliminary Budget Proposal

Moved by: Mayor Steve Arnold  
Seconded by: Mayor Bill Weber

"That the LAWSS Joint Board of Management **RECEIVE** as information the 2021 Preliminary Budget Report and 2021 Preliminary Budget Summary Sheet."

Carried

d. Risk Management Services Progress Report and Proposed Service Agreement Amendment

Moved by: Mayor Bill Weber  
Seconded by: Mayor Jackie Rombouts

"That the LAWSS Joint Board of Management **RECEIVE** the 2020 Progress Report prepared by the the Upper Thames River Conservation Authority as information and that the LAWSS Joint Board of Management **AMEND** the service agreement between the Upper Thames Conservation Authority and LAWSS to include the City of Sarnia for Risk Management Services from July 1, 2020 until December 31, 2020 for the quoted amount of \$10,500".

Carried

**5. Deferred Matters/Additional Business**

**6. Confidential**

**7. Adjournment**

Moved by: Mayor Bill Weber

Seconded by: Mayor Jackie Rombouts

"That the LAWSS Joint Board of Management **ADJOURN** this meeting to its next board meeting held electronically on Thursday, July 30, 2020 at 12pm."

Carried

		May Actual	Month Budget	YTD - ACTUAL	YTD - Budget	Annual Budget	Variance	Percent of Budget Used
<b>Municipality Revenue</b>								
4050	Municipality Revenue	-810,316.25	-810,316.25	-4,051,580.97	-4,051,580.97	-9,823,795.00	0.00	41%
	Sarnia	-472,738.50	-472,738.50	-2,363,692.50	-2,363,692.50	-5,672,862.00	0.00	42%
	St. Clair Township	-241,312.17	-241,312.17	-1,206,560.84	-1,206,560.84	-2,895,746.00	0.00	42%
	Plympton-Wyoming	-40,353.75	-40,353.75	-201,768.75	-201,768.75	-484,245.00	0.00	42%
	Lambton Shores	-15,639.08	-15,639.08	-78,195.41	-78,195.41	-187,669.00	0.00	42%
	Warwick	-20,825.17	-20,825.17	-104,125.56	-104,125.56	-249,902.00	0.00	42%
	Point Edward	-19,447.58	-19,447.58	-97,237.91	-97,237.91	-233,371.00	0.00	42%
	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%
	<b>Total Municipalities Revenue</b>	-810,316.25	-810,316.25	-4,051,580.97	-4,051,580.97	-9,823,795.00	0.00	41%
<b>Other Revenue</b>								
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	
	<b>Total Other Revenue</b>	0.00	0.00	0.00	0.00	-14,000.00	0.00	0%
<b>Investment Interest</b>								
4420	Interest Earned	-9,486.37	-22,000.00	-96,307.70	0.00	-58,000.00	-96,307.70	166%
<b>Project Expenses</b>								
	<b>Total Revenue</b>	-819,802.62	-832,316.25	-4,147,888.67	-4,051,580.97	-9,895,795.00	-96,307.70	42%
5100	<b>Project Expenses</b>	690,276.59	700,000.00	1,464,040.41	1,083,199.29	12,430,313.20	835,166.30	12%
	20-1 5kV Motor Control Group A & B (Engineering)		0.00	0.00	0.00	90,000.00	-90,000.00	0%
	20-2 WTP Main Plant HVAC Repair (Engineerin Design)		0.00	0.00	0.00	111,000.00	-111,000.00	0%
	20-3 WLPS Reservoir Rehabilitation (Engineering Design)		0.00	0.00	0.00	120,000.00	-120,000.00	0%
	20-4 Indian Road WT Rehabilitation ( Engineering Design)		0.00	0.00	0.00	30,000.00	-30,000.00	0%
	20-5 WTP PLC Conversion/Upgrade Construction	7,171.03	7,000.00	7,171.03	0.00	150,000.00	-142,828.97	5%
	20-6 Field Gate 4G Network Upgrade		0.00	0.00	0.00	75,000.00	-75,000.00	0%
	ES20-01 System - Master Plan Rebuild		0.00	25,065.43				
	ES20-02 Condition Assessment		0.00	0.00				
	ES20-03 Jacob's Loop Study		0.00	0.00				
	ES20-04 Jacob's Corrison Control Impact Study		0.00	0.00				
	ES20-05 Watermain Condition Assessment Approach		0.00	0.00				
	ES20-06 Twinning & Grid Reinforcement Class EA		0.00	0.00				
	R20-1 Financial Plan		0.00	2,003.15	0.00	0.00		
	R20-2 WTP Reservoir		0.00	44,281.59				
	<b>Tasks carried over from 2018</b>	683,105.56	0.00	1,385,519.21	529,013.05	6,348,156.60	835,166.30	22%
	17-05 Engineering Design for Emergency Generators		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	683,105.56	700,000.00	1,378,642.72	458,333.33	5,500,000.00	920,309.39	25%
	18-03 SCADA Radio Replacement Work (Installation)		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	<b>Distribution Repairs</b>	2,970.24	3,000.00	11,799.92	16,666.67	200,000.00	-4,866.75	6%
5175	<b>Facility Maintenance</b>		0.00	1,865.52	2,500.00	30,000.00	-634.48	6%



5125

	May Actual	Month Budget	YTD - ACTUAL	YTD - Budget	Annual Budget	Variance	Percent of Budget Used
<b>Major Maintenance</b>	<b>0.00</b>	<b>0.00</b>	<b>16,164.11</b>	<b>26,000.00</b>	<b>312,000.00</b>	<b>-3,169.22</b>	<b>5%</b>
MM20-01 WTO - Filter Core Sampling		0.00	0.00	1,250.00	15,000.00	-1,250.00	0%
MM20-02 WTP - VFD Flocc Mixers		0.00	0.00	3,750.00	45,000.00	-3,750.00	0%
MM20-03 WTP - Replace 7 Chlorine On-Line Analyzers		0.00	0.00	1,666.67	20,000.00	-1,666.67	0%
MM20-04 WTP - Traveling Screen Assessment and Inspection		0.00	0.00	1,000.00	12,000.00	-1,000.00	0%
MM20-05 WTP - Chemical Feed Pumps (3)		0.00	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		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%
<b>General &amp; Administrative Expenses</b>							
5200 OCWA Operating & Maintenance	362,769.93	362,769.93	1,813,849.65	362,769.92	4,353,239.00	1,451,079.73	42%
5300 Flow Reconciliations		0.00	0.00	12,500.00	150,000.00	-12,500.00	0%
5400 LAWSS Wages & Benefits	11,656.00	20,833.33	66,228.31	20,833.33	250,000.00	45,394.98	26%
5450 WSIB		0.00	245.70	125.00	1,500.00	120.70	16%
5500 Audit Fees	11,622.52	0.00	14,696.69	1,166.67	14,000.00	13,530.02	105%
5505 Consulting		0.00	0.00	208.33	2,500.00		
5510 Accounting & Legal	1,083.28	0.00	5,958.08	1,666.67	20,000.00	4,291.41	30%
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	1,905.70	0.00	1,905.70	333.33	4,000.00	1,572.37	48%
5535 Courier & Postage		0.00	24.39	41.67	500.00	-17.28	5%
5540 Income Taxes		0.00	0.00	0.00	0.00	0.00	0%
5545 Property Taxes	8,945.79	0.00	82,816.20	15,000.00	180,000.00	67,816.20	46%
5550 Property Administration	202.93	0.00	567.17	1,250.00	15,000.00	-682.83	4%
5555 Insurance	25,568.28	0.00	25,568.28	1,750.00	21,000.00	23,818.28	122%
5560 Interest & Bank Charges		0.00	10.85	8.33	100.00	2.52	11%
5565 Office Supplies	206.44	0.00	553.32	250.00	3,000.00	303.32	18%
5566 Computer Software		0.00	0.00	2,000.00	24,000.00	-2,000.00	0%
5570 Internet	85.43	0.00	341.72	125.00	1,500.00	216.72	23%
5571 GIS and Internet Services		0.00	0.00	183.33	2,200.00	-183.33	0%
5575 Travel (Includes Mileage)	61.23	0.00	158.49	125.00	1,500.00	33.49	11%
5576 Vehicle Expenses	91.47	0.00	91.47	1,041.67	12,500.00	-950.20	1%
5580 Telephone	281.58	0.00	656.19	125.00	1,500.00	531.19	44%
5585 Mobile Phone		0.00	522.85	125.00	1,500.00	397.85	35%
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		
<b>Total Expenses</b>	<b>1,117,727.41</b>	<b>1,086,603.26</b>	<b>3,509,129.38</b>	<b>2,079,982.26</b>	<b>24,391,708.80</b>	<b>1,593,281.17</b>	<b>14%</b>

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

<b>LAWSS Bank Account on May 1, 2020</b>	<b><u>12,366,801.63</u></b>
LAWSS Accounts Receivable - Received	<u>800,274.04</u>
	<b><u>13,167,075.67</u></b>
<b>LAWSS Accounts Payable - Paid</b>	1,159,017.66
LAWSS Accounts Payable - Outstanding	<u>1,139,205.36</u>
	<b><u>2,298,223.02</u></b>
<b>LAWSS Bank Account on May 31, 2020</b>	<b><u>12,008,058.01</u></b>
<b>Adjusted Bank Balance on May 31, 2020</b>	<b><u>10,868,852.65</u></b>
<b>Cash in Reserve</b>	<b><u>1,994,873.22</u></b>

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			\$7,171.03	\$142,828.97			
20-6 Field Gate 4G Network Upgrade	\$ 75,000.00		\$ 75,000.00				\$75,000.00			
ES20-01 System - Master Plan Rebuild	\$ 250,000.00		\$ 250,000.00			\$25,065.43	\$224,934.57			In Progress
ES20-02 Condition Assessment	\$ 30,000.00		\$ 30,000.00				\$30,000.00			
ES20-03 Jacob's Loop Study	\$ 300,000.00		\$ 300,000.00				\$300,000.00			
ES20-04 Jacob's Corrosion Control Impact Study	\$ 113,000.00		\$ 113,000.00				\$113,000.00			
ES20-05 Watermain Condition Assessment Approach	\$ 35,000.00		\$ 35,000.00				\$35,000.00			
ES20-06 Twinning & Grid Reinforcement Class EA	\$ 105,000.00		\$ 105,000.00				\$105,000.00			
R20-1 LAWSS Water Financial Plan				Watson & Associations Economists		\$2,003.15	\$0.00			In Progress
R20-2 WTP Reservoir						\$44,281.59	\$0.00			
<b>Projects Carry forward</b>										
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		\$2,757,167.43	\$2,742,832.57			In Progress
18-03 SCADA Radio Replacement Work (Installation)	\$ 150,000.00	\$ 362,156.60	\$ 512,156.60	Experteers	PO00237, P00233	\$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
<b>Major Maintenance</b>										
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**

**June 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 90,000m<sup>3</sup>, 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

**June: None**

## Maintenance, Operations & Distribution Works Summary 2020

### Maintenance

**June:**

Date	(P)reventative Capital Major Mtc (C)orrective	Description
June 1	<b>P</b>	Completed monthly inspection of all water treatment plant chlorine analyzers.
June 1	<b>P</b>	Completed six month inspection on spill kits at the water treatment plant and West Lambton Pumping Station.
June 1	<b>P</b>	Completed six month inspection on backwash pump.
June 2	<b>C</b>	Electek in to look at LL #3 contactor that fails to start up pump.
June 2	<b>P</b>	Monthly inspection of water treatment plant compressors.
June 2-5	<b>Capital</b>	Experteers on site to work on capital radio project.
June 3	<b>P</b>	Completed annual inspection and tests of foundation drain pumps at East Lambton Pumping Station.
June 3	<b>P</b>	Completed annual inspection of RMS holding tank mixer.
June 3	<b>P</b>	Inspected HFS site glass.
June 4	<b>Capital</b>	EXP in to check on generator system.
June 4	<b>P</b>	Completed monthly inspection of eyewash and safety showers at the water treatment plant.
June 5	<b>P</b>	Tested generators at East Lambton Pumping Station.
June 5	<b>P</b>	Sentry Fire in to do annual inspection on fire system.
June 5	<b>P</b>	Completed six month inspection of spill kit at East Lambton

		Pumping Station.
June 5	<b>P</b>	Completed monthly inspection of vacuum priming system at East Lambton Pumping Station.
June 5	<b>P</b>	Conducted two year inspection on maturation mixers in the RMS.
June 8	<b>P</b>	Completed monthly inspection of elevator.
June 8-12	<b>Capital</b>	WSP in for radio project work.
June 8	<b>P</b>	PW Makar at East Lambton Pumping Station and Forest Standpipe to conduct annual site security audit.
June 9	<b>P</b>	Completed monthly inspection of travelling screens at the water treatment plant.
June 10	<b>P</b>	Conducted monthly calibration checks on East Lambton Pumping Station chlorine analyzers.
June 10	<b>Capital</b>	Meeting Nick Wilson and contractor at West Lambton Pumping Station to discuss valve replacement.
June 11	<b>P</b>	Tested polymer system as per SOP.
June 11	<b>P</b>	Tested Residual Management System's effluent chlorine residuals. No chlorine detected.
June 11	<b>Capital</b>	Experteers at East Lambton Pumping Station to work on radio project.
June 15	<b>P</b>	Sentry Fire has completed annual fire system inspection. 17 heat sensors replaced.
June 15-16	<b>Capital</b>	Meetings in regards to the PLC/SCADA upgrades.
June 16	<b>Capital</b>	Meeting with LAWSS GM in regards to HVAC/dehumidification system.
June 6-7	<b>P</b>	Completed monthly inspection of flocculator gear drives.
June 16-19	<b>Capital</b>	WSP in to work on SCADA/PLC project.
June 17	<b>P</b>	Flushed clearwell hypo lines.
June 17	<b>P</b>	Pumped out diesel and HFS containment areas.
June 18	<b>Capital</b>	Ainsworth conducting TSSA inspection on water treatment plant generators.
June 19	<b>Capital</b>	Meeting contractor at West Lambton Pumping Station to discuss valve replacement.
June 19	<b>P</b>	Tested intruder alarm at West Lambton Pumping Station.
June 19	<b>P</b>	Tested generators at both East and West Lambton Pumping Station.
June 22	<b>Capital</b>	Meeting with LAWSS GM in regards to SCADA Master Plan.
June 22	<b>P</b>	Completed monthly maintenance on Stations 1 and 7 turbidity meters.
June 22	<b>P</b>	Completed monthly maintenance on lab turbidity meter.
June 23-24	<b>P</b>	Annual flow meter calibrations completed.
June 24	<b>Capital</b>	Meeting contractor at West Lambton Pumping Station to discuss valve replacement.
June 24	<b>P</b>	Tested generators at the water treatment plant.
June 25	<b>P</b>	Completed monthly maintenance on all pH probes at the water treatment plant.

June 29	<b>P</b>	Elektek in to do annual inspection on VFD for HL Pump #6.
June 29	<b>P</b>	Completed monthly maintenance on streaming current meters.
June 29	<b>P</b>	Completed monthly maintenance on all turbidity meters at the water treatment plant.
June 29	<b>P</b>	Completed monthly maintenance on fluoride analyzer.
June 30	<b>P</b>	Completed monthly maintenance on Residual Management System turbidity meters.
June 30	<b>P</b>	Completed monthly maintenance on pocket chlorine testers.
June 30	<b>P</b>	Completed monthly maintenance on chlorine analyzer at West Lambton Pumping Station.
June 30	<b>C</b>	Replaced ceiling tiles in the lab.

## Operations and Compliance

### June:

June 1	PAC water on for testing.
June 1	Power outage at the water treatment plant. Plant running under generator load for approximately 1.5 hours. Generator #2 failed to start.
June 1	South clearwell pump failed with P+. Pump and panel were reset.
June 2	Start PAC system with PAC.
June 2	TSS sample for the Residual Management System taken.
June 2	Energy reporting information sent to Clinton.
June 3	Annual sample to check for diesel contamination taken from diesel containment at the water treatment plant. Results of tests showed no contamination.
June 4	OCWA's new Occupational Health and Safety Policy posted.
June 4	South clearwell pump #2 failed with airlock alarm. Pump and panel were reset.
June 10	Switched Forest lead to FP3 from FP1.
June 12	Staff meeting. Reviewed three year risk assessment and annual contingency test.
June 16	Large watermain break on City of Sarnia's 12" line at 292 Confederation. Demand increased.
June 17	PW Makar at West Lambton Pumping Station to conduct annual site security audit.
June 19	Power failure at the water treatment plant. Reset pumps with no issues.
June 24	PW Makar at Watford to conduct annual site security audit.
June 27	Power failure at East Lambton Pumping Station. No issues noted.

## Distribution

### June:

June 1	Onsite for third party at Hill St for crossing of LAWSS watermain.
June 2	Valve operations in St Clair Township.
June 2-3	Valve operations on Nauvoo Rd in Warwick Watford.



June 3	Installed dehumidifier in Wyoming Pit.
June 4	Site meet with Bluewater Power for future work near LAWSS watermain at Exmouth and Front.
June 5	Onsite for third party work on Cathcart and Colburne near LAWSS watermain for sewer line repair.
June 9	Hydrant flushing in the City of Sarnia on Front, Brock and Campbell Streets.
June 16	Onsite for third party work at Brock and Confederation for directional drilling near LAWSS watermain by Vink.
June 16	Hydrant flushing in the City of Sarnia on Murphy Rd.
June 17-18	Onsite for third party at Front and Exmouth for directional drill near LAWSS watermain by Bluewater Power.
June 19	Onsite for third party work at 7681 Confederation Line for work being done by Brooks Telecom near LAWSS watermain.
June 22	Onsite for third party work near Blue Point for gas line work near LAWSS watermain by TW Johnstone.
June 23	Site meet on Fleming Rd in regards to bell fiber locations.
June 24	Conducting chamber checks on London Line in Warwick Watford.
June 25	Chamber checks on London Line in Plympton-Wyoming.

### Call Outs 2020

**June:** Call out June 12<sup>th</sup> for emergency locate. Call out on June 20<sup>th</sup> due to the PAC system not starting up after power failure. Pumps had to be reset.

### 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	165	162						

## 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 m<sup>3</sup>

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	230	237						

## 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** – 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: 2020-06-01

End Date: 2020-06-30

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)	2	2	2	5.50	254.71	85.00%	100.00%	-15.00%
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, West Lambton Booster Stn (5544-WPWL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, West ST.Clair Distribution (5544-WDWS)	1	1	1	1.25	52.30	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%
		<b>Total</b>	3	3	3	6.75	307.01	85.00%	100.00%	-15.00%

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

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## Health & Safety Work Order Summary by Facility

Start Date: 2020-01-01

End Date: 2020-06-30

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)	21	21	20	37.50	1562.24	85.00%	95.24%	-10.24%
		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)	5	5	5	5.25	203.46	85.00%	100.00%	-15.00%
		Lambton Area Water Treatment Plant (5544)	3	3	3	4.50	218.76	85.00%	100.00%	-15.00%
		<b>Total</b>	29	29	28	47.25	1984.46	85.00%	96.55%	-11.55%

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: 2020-06-01  
End Date: 2020-06-30  
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)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, East Lambton PS (5544-WPEL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		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	2	92.62	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)	2	2	2	3	159.32	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			4	4	3	5	251.94	0	0	0	0	0	1	1	1	4	197.7

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Work Order Summary by Facility

Start Date: 2020-06-01  
End Date: 2020-06-30  
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)	0	0	0	0	0	4	4	4	13.25	543.94	0	0	0	0	0	85%	100%	-15.0%
		5544, East Lambton PS (5544-WPEL)	4	4	4	4.5	234.81	3	3	3	7.25	292.21	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)	5	5	5	5.5	280.6	2	2	2	68.5	3710.26	0	0	0	0	0	85%	100%	-15.0%
		5544, Lambton Area WTP (5544-WTLA)	33	33	30	92.25	4135.12	12	12	11	1487	43182.29	0	0	0	0	0	85%	89.58%	-4.58%
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, West Lambton Booster Stn (5544-WPWL)	3	3	3	2.5	114.04	2	2	2	4.5	205.99	0	0	0	0	0	85%	100%	-15.0%
		5544, West ST.Clair Distribution (5544-WDWS)	0	0	0	0	0	3	3	3	5.25	237.22	0	0	0	0	0	85%	100%	-15.0%
		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			45	45	42	104.75	4764.57	26	26	25	1585.75	48171.91	0	0	0	0	0	85%	93.42%	6.578%

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Work Order Summary by Facility

Start Date: 2020-01-01  
End Date: 2020-06-30  
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)	3	3	3	30.75	1321.87	1	1	1	13.25	545.45	2	2	2	16	3764.87
		5544, East Lambton PS (5544-WPEL)	4	4	4	26.5	1122.68	0	0	0	0	0	1	1	1	8	527.2
		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)	2	2	2	13.5	580.55	0	0	0	0	0	0	0	0	0	0
		5544, Lambton Area WTP (5544-WTLA)	20	20	14	180.75	12241.56	0	0	0	0	0	2	2	2	8	395.4
		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)	5	5	5	17	737.45	0	0	0	0	0	0	0	0	0	0
		5544, West ST.Clair Distribution (5544-WDWS)	2	2	1	22.5	1073.26	0	0	0	0	0	1	1	1	6	211.62
		Lambton Area Water Treatment Plant (5544)	4	4	4	8.75	1879.55	0	0	0	0	0	0	0	0	0	0
Grand Total			40	40	33	299.75	18956.92	1	1	1	13.25	545.45	6	6	6	38	4899.09

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Work Order Summary by Facility

Start Date: 2020-01-01  
End Date: 2020-06-30  
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	132.5	7740.74	85%	100%	-15.0%
		5544, East Lambton Distribution (5544-WDEL)	6	6	0	0	0	24	24	24	69.25	2658.77	1	1	1	17.25	14528.39	85%	83.33%	1.666%
		5544, East Lambton PS (5544-WPEL)	35	35	33	46.75	2270.15	14	14	14	66	2728.85	0	0	0	0	0	85%	96.29%	-11.2%
		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)	18	18	17	47.5	2268.1	12	12	12	95	4772.21	0	0	0	0	0	85%	96.87%	-11.8%
		5544, Lambton Area WTP (5544-WTLA)	216	216	195	645.5	27679.42	78	78	74	9372.5	270048.3	4	4	2	23	17209.88	85%	90.18%	-5.18%
		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)	48	48	37	51.5	2310.81	12	12	12	83.25	4017.54	0	0	0	0	0	85%	83.07%	1.923%
		5544, West ST.Clair Distribution (5544-WDWS)	3	3	0	0.5	18.21	18	18	17	43	1816.8	1	1	0	10.5	651.94	85%	79.16%	5.833%
		Lambton Area Water Treatment Plant (5544)	8	8	5	41.25	2047.99	1	1	1	30.75	1513.28	1	1	0	0	0	85%	76.92%	8.076%
Grand Total			334	334	287	833	36594.68	159	159	154	9759.75	287555.8	8	8	3	183.25	40130.95	85%	89.07%	10.92%

0  
0



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

Report extracted 07/14/2020 12:00

From: 01/01/2020 to 30/06/2020

**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	05/2020	06/2020	Total	Avg	Max	Min
Coagulation/Floculation / Coagulant Dosage-Calculated - mg/L										
Max IH	26.437	30.355	29.818	28.267	27.141	23.142			30.355	
Mean IH	20.802	24.673	25.189	23.287	21.491	19.913		22.546		
Min IH	15.602	20.415	20.129	16.333	16.002	17.122				15.602
Coagulation/Floculation / Coagulant Used - kg										
Max IH	1241.6	1459.2	1638.4	1190.4	1459.2	1779.2			1779.2	
Mean IH	964.129	1110.069	1104.103	979.2	1063.226	1296.64		1085.398		
Min IH	691.2	870.4	793.6	780.8	832	908.8				691.2
Total IH	29888	32192	34227.2	29376	32960	38899.2	197542.4			
Coagulation/Floculation / Coagulant Volume Used - m³										
Max IH	0.97	1.14	1.28	0.93	1.14	1.39			1.39	
Mean IH	0.753	0.867	0.863	0.765	0.831	1.013		0.848		
Min IH	0.54	0.68	0.62	0.61	0.65	0.71				0.54
Total IH	23350	25150	26740	22950	25750	30390	154330			
DW / Trihalomethane: Total - µg/l										
Max Lab	31				39				39	
Mean Lab	29.667				34.667			32.167		
Min Lab	28				28					28
East Lambton Booster Station / CI Residual: Inlet Free - mg/L										
Max OL	1.49	1.49	1.83	1.63	1.58	1.52			1.83	
Mean OL	1.359	1.372	1.434	1.424	1.419	1.382		1.398		
Min OL	0	0	0	0	0	0				0
Filter Backwash / Backwash Volume - m³										
Max IH	2988	4208	3666	2702	2716	3016			4208	
Mean IH	2017.581	2051.793	2001.742	1775.2	1903.613	2066.133		1968.973		
Min IH	1208	1200	0	602	1204	1206				0
HFS / Fluoride Dosage - mg/L										

Max IH	0.63	0.633	0.647	0.645	0.685	0.594			0.685		
Mean IH	0.55	0.556	0.555	0.554	0.551	0.534		0.55			
Min IH	0.477	0.516	0.433	0.491	0.41	0.399				0.399	
HFS / Fluoride Used - l											
Max IH	88.823	94.553	91.689	88.823	120.341	137.533			137.533		
Mean IH	83.185	82.796	81.437	77.934	90.587	114.818		88.435			
Min IH	68.766	77.361	63.295	68.762	71.631	85.957				63.295	
Total IH	2578.73	2401.087	2524.546	2338.016	2808.208	3444.541	16095.13				
HFS / HFS (kg) - kg											
Max IH	108.364	115.355	111.86	108.364	146.816	167.79			167.79		
Mean IH	101.486	101.011	99.353	95.079	110.517	140.078		107.89			
Min IH	83.895	94.38	77.22	83.89	87.39	104.868				77.22	
Total IH	3146.051	2929.326	3079.946	2852.38	3426.014	4202.34	19636.06				
HFS / Treated Water Fluoride Residual - mg/L											
Max OL	2	0.81	0.92	0.8	0.81	0.81			2		
Mean OL	0.544	0.63	0.692	0.666	0.673	0.661		0.644			
Min OL	0	0.23	0.51	0.55	0.56	0.21				0	
Post Disinfection / Chlorine Dosage - mg/L											
Max IH	2.078	1.897	2.157	2.232	2.063	2.016			2.232		
Mean IH	1.449	1.561	1.676	1.599	1.618	1.796		1.616			
Min IH	0.822	1.03	1.288	0.933	1.134	1.582				0.822	
Post Disinfection / Hypochlorite Dosage - mg/L											
Max IH	17.316	15.809	17.977	18.596	17.191	16.797			18.596		
Mean IH	12.072	13.011	13.971	13.325	13.483	14.971		13.47			
Min IH	6.854	8.586	10.733	7.779	9.447	13.18				6.854	
Post Disinfection / Hypochlorite Used - kg											
Max IH	777.85	680.325	1083.35	707.35	1025.775	1294.85			1294.85		
Mean IH	559.262	585.231	615.927	560.867	672.782	972.927		660.839			
Min IH	254.975	358.375	440.625	420.65	425.35	701.475				254.975	
Total IH	17337.13	16971.7	19093.75	16826	20856.25	29187.82	120272.6				
Post Disinfection / Hypochlorite Volume-Total - m³											
Max IH	0.662	0.579	0.922	0.602	0.873	1.102			1.102		
Mean IH	0.476	0.498	0.524	0.477	0.573	0.828		0.562			
Min IH	0.217	0.305	0.375	0.358	0.362	0.597				0.217	
Total IH	14755	14444	16250	14320	17750	24840.7	102359.7				
Post Disinfection / Station 7 Cl Residual: Free - mg/L											
Max OL	5	1.75	3.1	1.84	1.85	1.8			5		
Mean OL	1.608	1.636	1.816	1.664	1.662	1.613		1.667			
Min OL	0	1.45	1.45	0	1.4	0				0	
PrTr / P.A.C. Dosage - mg/L											
Max IH						0.594			0.594		
Mean IH						0.386		0.386			
Min IH						0.187				0.187	

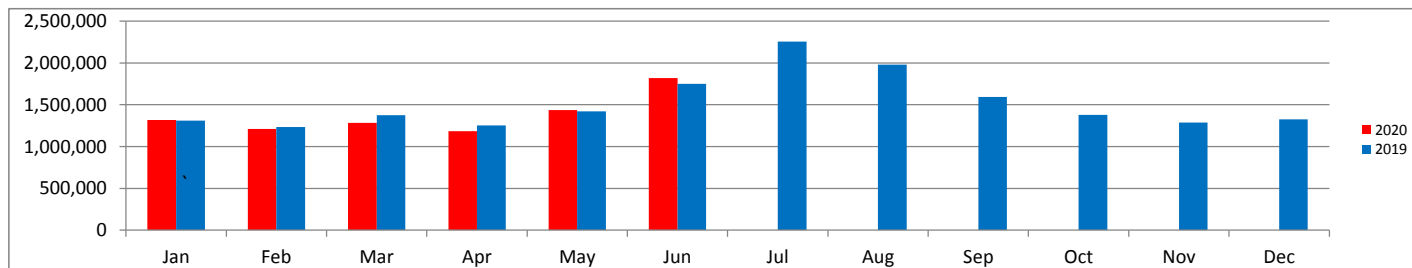
PrTr / P.A.C. Used - kg																		
Max IH									29.461					29.461				
Mean IH									24.607			24.607						
Min IH									12.27								12.27	
Total IH									713.612	713.612								
Raw Water / Background - cfu/100mL																		
Max Lab		10	5	0	0	11	270					270						
Mean Lab		2.5	1.25	0	0	2.75	58				12.154							
Min Lab		0	0	0	0	0	0									0		
Raw Water / Conductivity - µS/cm																		
Max IH		223.4	235.2	231.1	229.8	244.9	234.5					244.9						
Mean IH		220.597	226.503	222.677	222.918	227.515	229.864				224.981							
Min IH		217.1	217.6	217.8	218.65	176.9	227.8									176.9		
Raw Water / E. Coli: EC - cfu/100mL																		
Max Lab		0	0	0	0	0	2					2						
Mean Lab		0	0	0	0	0	0.4				0.077							
Min Lab		0	0	0	0	0	0									0		
Raw Water / Raw Flow Daily - m³/d																		
Max IH		51462	49347	68210	54076	68792	89737					89737						
Mean IH		46223.13	45011.1	43968.16	42331.93	49718.13	65201.9				48728.18							
Min IH		37203	38233	26615	30479	41407	44210									26615		
Raw Water / Raw Flow Rate - l/s																		
Max IH		595.62	571.15	789.47	600.16	796.2	1038.62					1038.62						
Mean IH		534.99	523.03	508.89	482.67	575.45	754.15				563.03							
Min IH		430.59	442.51	308.04	352.77	479.24	511.69									308.04		
Raw Water / Raw Water Turbidity - NTU																		
Max OL		14	11.4	23	6.6	3.4	3.79					23						
Mean OL		2.445	3.495	3.194	1.747	1.714	1.035				2.272							
Min OL		0.26	0.51	0.587	0.41	0.65	0.354									0.26		
Raw Water / Raw Water pH - ---																		
Max IH		8.27	8.16	8.13	8.16	8.29	8.46					8.46						
Mean IH		8.114	8.051	8.051	8.065	8.153	8.252				8.114							
Min IH		8.02	7.98	7.96	7.9	8.03	8.14									7.9		
Raw Water / Temperature - °C																		
Max IH		10	8	12	11.7	14	17.9					17.9						
Mean IH		7.466	6.083	9.203	9.432	11.392	15.318				9.829							
Min IH		5.5	3	5.9	6.87	8.025	12.8									3		
Raw Water / Total Coliform: TC - cfu/100mL																		
Max Lab		0	0	0	0	0	5					5						
Mean Lab		0	0	0	0	0	1				0.192							
Min Lab		0	0	0	0	0	0									0		
Treated Water / Background - cfu/100mL																		
Max Lab		0	0	0	0	0	0					0						

Mean Lab		0		0		0		0		0		0			
Min Lab		0		0		0		0		0				0	
Treated Water / E. Coli: EC - cfu/100mL															
Max Lab		0		0		0		0		0		0			
Mean Lab		0		0		0		0		0		0			
Min Lab		0		0		0		0		0				0	
Treated Water / Electrical Consumption - kWh															
Total IH		1060323		1063396		1033647		1058808		936374.9		923041.1		6075590	
Treated Water / Flow: Total of All Sources - m³/d															
Max IH		48147		47888		47433		45327		65796		79186		79186	
Mean IH		44815.48		44078.86		43484.03		41675.97		48893.58		63849.17		47785.86	
Min IH		37737		38449		35292		38147		38491		47877			35292
Total IH		1389280		1278287		1348005		1250279		1515701		1915475		8697027	
Treated Water / HPC - cfu/mL															
Max Lab	<	10	<	40	<	10	<	10	<	10	<	10	<	40	
Mean Lab	<	10	<	17.5	<	10	<	10	<	10	<	10	<	11.154	
Min Lab	<	10	<	10	<	10	<	10	<	10	<	10			< 10
Treated Water / Total Coliform: TC - cfu/100mL															
Max Lab		0		0		0		0		0		0		0	
Mean Lab		0		0		0		0		0		0		0	
Min Lab		0		0		0		0		0		0		0	
Treated Water / Turbidity - NTU															
Max OL		0.094		0.11		0.741		0.1		0.089		0.6		0.741	
Mean OL		0.069		0.069		0.082		0.072		0.069		0.069		0.072	
Min OL		0.052		0.052		0.048		0.05		0.05		0.045			0.045
West Lambton Booster Station / CI Residual: Outlet Free - mg/L															
Max OL		4.98		1.88		2.22		2.26		1.84		3		4.98	
Mean OL		1.666		1.694		1.735		1.63		1.626		1.5		1.642	
Min OL		0		0		0		0		0		0			0
Zebra Mussel Control / Chlorine Dosage - mg/L															
Max IH		1.251		1.294		1.283		1.49		1.292		1.177		1.49	
Mean IH		1.057		1.137		1.143		1.125		1.091		1.042		1.099	
Min IH		0.972		0.971		1.039		0.83		0.829		0.896			0.829
Zebra Mussel Control / CI Residual: Free - mg/L															
Max IH		0.66		0.67		0.71		0.71		0.68		0.7		0.71	
Mean IH		0.597		0.599		0.634		0.61		0.627		0.609		0.613	
Min IH		0.46		0.44		0.51		0.42		0.43		0.44			0.42
Zebra Mussel Control / CI Residual: Total - mg/L															
Max IH		0.84		0.82		0.86		0.83		0.84		0.803		0.86	
Mean IH		0.759		0.754		0.785		0.746		0.756		0.728		0.755	
Min IH		0.61		0.6		0.67		0.53		0.52		0.53			0.52
Zebra Mussel Control / Hypochlorite Dosage - mg/L															
Max IH		10.423		10.787		10.696		12.413		10.77		9.805		12.413	

Mean IH	8.812	9.472	9.521	9.375	9.095	8.684	9.158				
Min IH	8.102	8.095	8.656	6.916	6.906	7.468				6.906	
Zebra Mussel Control / Hypochlorite Used - kg											
Max IH	470	492.325	667.4	504.075	635.675	791.95			791.95		
Mean IH	407.081	425.512	418.262	393.938	451.882	565.998		443.582			
Min IH	339.575	358.375	278.475	312.55	323.125	381.875				278.475	
Total IH	12619.5	12339.85	12966.13	11818.15	14008.35	16979.93	80731.9				
Zebra Mussel Control / Hypochlorite Volume-Total-1 - m³											
Max IH	0.4	0.419	0.568	0.429	0.541	0.674			0.674		
Mean IH	0.346	0.362	0.356	0.335	0.385	0.482		0.378			
Min IH	0.289	0.305	0.237	0.266	0.275	0.325				0.237	
Total IH	10740	10502	11035	10058	11922	14451	68708				
Filter Backwash / Backwash Volume - m³											
Total IH	62545	59502	62054	53256	59012	61984	358353				

# LAWSS Flow Summary

Total Flows as of Jun 2020														Total	% Total
LAWSS Member		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year To Date for: Jan - Jun	
Sarnia	2020	776,102	727,623	774,972	747,178	919,009	1,158,038	0	0	0	0	0	0	5,102,923	62.17
	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	23,805	33,792	0	0	0	0	0	0	150,121	1.83
	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	331,343	427,767	0	0	0	0	0	0	2,136,405	26.03
	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	88,435	114,393	0	0	0	0	0	0	444,881	5.42
	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	31,052	37,083	0	0	0	0	0	0	173,998	2.12
	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	35,096	41,810	0	0	0	0	0	0	199,580	2.43
	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	8207907
Others														2019	18016202
Alvinston	2020	6,170	5,675	6,309	5,821	7,041	7,234	0	0	0	0	0	0	38,251	0.46
	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	0.07
	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	1,435,780	1,820,117	0	0	0	0	0	0	8,252,277	
	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 Jun**

**Year to Date**  
**Total**

<b>LAWSS Members</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan - Jun</b>
City of Sarnial:	776,102	727,623	774,972	747,178	919,009	1,158,038	0	0	0	0	0	0	5,102,923
Point Edward:	27,526	23,425	23,101	18,471	23,805	33,792	0	0	0	0	0	0	150,121
St. Clair Township:	387,392	342,521	355,870	291,512	331,343	427,767	0	0	0	0	0	0	2,136,405
Plympton/Wyoming:	61,058	58,397	57,610	64,989	88,435	114,393	0	0	0	0	0	0	444,881
Lambton Shores:	30,090	24,113	26,482	25,177	31,052	37,083	0	0	0	0	0	0	173,998
Watford/Warwick:	30,802	28,896	33,215	29,760	35,096	41,810	0	0	0	0	0	0	199,580
	1,312,970	1,204,975	1,271,252	1,177,089	1,428,739	1,812,883	0	0	0	0	0	0	8,207,907
<b>Others</b>													
Town of Alvinston:	6,170	5,675	6,309	5,821	7,041	7,234	0	0	0	0	0	0	38,251
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	1,435,780	1,820,117	0	0	0	0	0	0	
	1,319,140	1,210,650	1,283,680	1,182,910	1,435,780	1,820,117	0	0	0	0	0	0	8,252,277

**Last Years Data 2019**

<b>LAWSS Members</b>													
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
<b>Others</b>													
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

# City of Sarnia

For the Month of: June 2020

Lambton Area Water Supply System

1215 Fort St. Sarnia, On N7V 1M1

Phone:(519)344-7429

Fax: (519)344-4337

Meter num	Meter Location	Read date	Last Read date	Calibration Adjustments				X	Flow
		30-Jun-20	31-May-20	Difference	As Found	As Left			
15	HighL High Net Flow Totalizer	1,929,524	1,928,466	1,058	1,928,466	1,928,549		1	975
13	HighL Low Net Flow Totalizer	199,673,260	197,854,080	1,819,180	248,052	248,090		1	1,819,142

**Entering Sarnia:** 1,820,117

Members Monthly % Used

## Leaving Sarnia to LAWSS Members:

Village of Point Edward - Grand Total:	33,792	1.9
St. Clair Township - Grand Total:	427,767	23.6
Plympton/Wyoming - Grand Total:	114,393	6.3
Lambton Shores - Grand Total:	37,083	2.0
Village of Watford/Township of Warwick - Grand Total:	41,810	2.3

## Leaving Sarnia to Others:

Town of Alvinston - Grand Total:	7,234
Town of Petrolia - Grand Total:	0
Chatham-Kent Area Water - Grand Total:	0

**Metered Consumption:** 1,158,038

**Adjustments:**

**Reason for Adjustment:**

23 Jun 2020 Meter Calibrations



Mark Harris (Operations Manager)

**City of Sarnia - Total Consumption:** 1,158,038

**Leakage rate adjustment** 0% 0

**City of Sarnia - Grand Total:** 1,158,038 63.9

**Overall Grand Total:** 1,820,117 100.0



LAWSS Water used by the

## Village of Point Edward

For the Month of: June 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 30-Jun-20	Last Read date 31-May-20	Difference	Calibration Adjustments		X	Flow	%
					As Found	As Left			
CH01	Venetian Vill (Mag)	509,724	503,350	6,375			1	6,375	19.6
CH02	Ven & Exmouth (Mag)	44,196	44,079	117			1	117	0.4
CH03	Michigan & Monk (Mag)	1,169,121	1,143,412	25,710	1,163,103	1,163,145	1	25,668	79.0
CH04	Michigan & Front (Mag)	142,386	142,068	318			1	318	1.0
								<b>Metered Consumption:</b>	32,478 100.0
								<b>Adjustments:</b>	
CH04	23 Jun 2020 Meter Calibrations	Estimated flow						15	0.0
								<b>Village of Point Edward - Total Consumption:</b>	32,493
								<b>Leakage rate adjustment 4%</b>	1,300
								<b>Village of Point Edward - Grand Total:</b>	33,792



Mark Harris (Operations Manager)

LAWSS Water used by the

# St. Clair Township

For the Month of: June 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 30-Jun-20	Last Read date 31-May-20	Difference	Calibration Adjustments		X	Flow	%
					As Found	As Left			
WL-O 3100	WL High Net Flow - West Lambton Plank Road (3/4)	40,143,704 4,215	39,732,628 3,965	411,076 250	40,041,662	40,041,708	1 1	411,030 250	99.9 0.1
	<b>Back to Sarnia</b>								
1100	LaSalle & Parkway	9,161	9,101	60			1	60	0.0
1090	LaSalle & Tashmoo	5,083	5,059	24			1	24	0.0
<b>Entering St. Clair Township:</b>								411,280	100.0
<b>Leaving St. Clair Township</b>									
Back to Sarnia:								84	0.0
Chatham-Kent Area Water - Total Consumption:								0	
<b>Metered Consumption:</b>								411,196	100.0
<b>Adjustments:</b>									
WL-O	23 Jun 2020 Meter Calibrations	Estimated flow						118	0.0
<b>St. Clair Township - Total Consumption:</b>								411,314	
Leakage rate adjustment 4%								16,453	
<b>St. Clair Township - Grand Total:</b>								427,767	



Mark Harris (Operations Manager)

**Township of Plympton / Village of Wyoming**

For the Month of: June 2020

Meter num	Meter Location	Read date 30-Jun-20	Last Read date 31-May-20	Difference	Calibration Adjustments		X	Flow	%
					As Found	As Left			
<b>Entering Plympton</b>									
5001	Ch05 Low Net Flow - Maundaumin	57,811	57,809	2	57,809	57,811	1	0	
5002	Ch05 High Net Flow - Maundaumin	18,963,308	18,770,262	193,046	8,924,688	8,924,710	1	193,024	
<b>Village of Wyoming</b>									
8001	Wyoming	432,670	432,670	0			1	0	
8002	Wyoming	8,826	6,264	2,562			10	25,620	
<b>Back to Sarnia</b>									
1005	Brights Grove (Sarnia)	610	610	0			0.1	0	
1006	Brights Grove (Sarnia)	81,540	81,540	0			10	0	

**Entering Plympton:** 193,024**Leaving Plympton**

Village of Wyoming: 25,620

Back to Sarnia: 0

Lambton Shores - Total Consumption: 35,657

Watford/Warwick - Total Consumption: 40,202

Town of Alvinston - Total Consumption: 7,234

Town of Petrolia - Total Consumption: 0

**Metered Consumption For Plympton:** 84,311

Village of Wyoming: 25,620

**Adjustments:****Reason for Adjustment:**

5001	23 Jun 2020 Meter Calibrations	Estimated flow	0
5002	23 Jun 2020 Meter Calibrations	Estimated flow	62


**Plympton/Wyoming - Total Consumption:** 109,993

Leakage rate adjustment 4% 4,400

**Plympton/Wyoming - Grand Total:** 114,393

Mark Harris (Operations Manager)

LAWSS Water used by the

## Lambton Shores

For the Month of: June 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 30-Jun-20	Last Read date 31-May-20	Difference	Calibration Adjustments		X	Flow	%
					As Found	As Left			
7003	Ch07 High Net Flow - Townsend	3,763,058	3,729,063	33,995	3,755,616	3,755,628	1	33,983	
7004	Ch07 Low Net Flow - Townsend	255,688	254,028	1,661	255,319	255,321	1	1,659	

**Metered Consumption:** 35,642

Reason for Adjustment:

Adjustments:

7003	23 Jun 2020 Meter Calibrations	Estimated flow	14
7004	23 Jun 2020 Meter Calibrations	Estimated flow	1

**Lambton Shores - Total Consumption:** 35,657

**Leakage rate adjustment 4%** 1,426

**Lambton Shores - Grand Total:** 37,083



Mark Harris (Operations Manager)

LAWSS Water used by the

## Village of Watford/Township of Warwick

For the Month of: June 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 30-Jun-20	Last Read date 31-May-20	Difference	Calibration Adjustments		X	Flow	%
					As Found	As Left			
<b>Entering Watford/Warwick</b>									
9001	Ch10 High Net Flow - London Line	6,955,701	6,899,620	56,081	6,945,038	6,945,056	1	56,063	
9002	Ch10 Low Net Flow - London Line	655,187	650,562	4,624	654,305	654,307	1	4,623	
9003	Ch11 High Net Flow - Confederation	1,174,091	1,171,004	3,088	1,173,565	1,173,578	1	3,075	
9004	Ch11 Low Net Flow - Confederation	59,493	55,439	4,054	58,640	58,641	1	4,052	
<b>Leaving Watford/Warwick</b>									
5013	Ch09 High Net Flow - Egremont	2,824,410	2,804,009	20,401	2,820,403	2,820,406	1	20,398	
AF	Alvin High Net Flow Totalizer	1,573,867	1,566,633	7,234			1	7,234	

<b>Entering Watford/Warwick:</b>	67,813
<b>Leaving Watford/Warwick:</b>	27,632
<b>Metered Consumption:</b>	40,181

**Reason for Adjustment:**

**Adjustments:**

9001	23 Jun 2020 Meter Calibrations	Estimated flow	20
9002	23 Jun 2020 Meter Calibrations	Estimated flow	2
9003	23 Jun 2020 Meter Calibrations	Estimated flow	0
9004	23 Jun 2020 Meter Calibrations	Estimated flow	3
5013	23 Jun 2020 Meter Calibrations	Estimated flow	-4

<b>Watford/Warwick - Total Consumption:</b>	40,202
<b>Leakage rate adjustment 4%</b>	1,608



**Village of Watford/Township of Warwick - Grand Total:** 41,810

**Mark Harris (Operations Manager)**

LAWSS Water used by the

## Town of Alvinston

For the Month of: June 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-Jun-20	31-May-20		As Found	As Left			
AF	Alvin High Net Flow Totalizer	1,573,867	1,566,633	7,234			1	7,234	
								<u>Metered Consumption:</u>	7,234
Reason for Adjustment:								<u>Adjustments:</u>	

Town of Alvinston - Total Consumption: 7,234

Leakage rate adjustment 0% 0

Town of Alvinston - Grand Total: 7,234



Mark Harris (Operations Manager)

LAWSS Water used by the

## Town of Petrolia

For the Month of: June 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-Jun-20	31-May-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: June 2020

Meter num	Meter Location	Read date	Last Read date	Difference	Calibration Adjustments		X	Flow	%
		30-Jun-20	31-May-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.:	2020-07-03
Report Page:	Page 1 of 2
Meeting Date:	July 30, 2020
File No.:	



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

**From:** Clinton Harper  
General Manager

**Subject:** Information Reports (July 30, 2020)

## Recommendation

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

### Items:

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#### **New LAWSS Communication System**

On September 26, 2019, the LAWSS Board approved the implementation of a cloud-based, software defined, wide area network to replace the failing radio communication system at LAWSS. This direction was given to Experteers and on December 6, 2019. LAWSS, OCWA and WSP staff attended a proof of concept at Experteers shop in Mississauga, ON which was accepted by LAWSS staff.

The week of June 1, 2020, all of the major equipment were installed at the eight LAWSS facilities in preparation for future commissioning. As an initial step, during this week the Forest SP and Watford SP were connected in parallel to the existing communication network. This was done to allow monitoring of the new the communication network in tandem with existing. The new communication system was then left to run in the background where it was monitored by staff. On Monday July 13, 2020, after 5-weeks of monitoring, the decision was made to begin commissioning of the new communication system. Over the next five days the existing communication systems was slowly and systematically abandoned as control was transferred to the new system following an established commissioning plan. At this time, commissioning of the new communication network is complete. The radio communication network and equipment, while disconnected, will remain online until staff are satisfied with the performance of the new network.

WSP is currently working to cleanup coding found in the Radio PLC that was unrelated to the radio communication network.

Report No.: 2020-07-03
Report Page: Page 2 of 2
Meeting Date: July 30, 2020
File No.:



### **COVID-19 Update**

No major changes to report. The Contractor screening tool remains in place which requires that contractors wear masks and maintain physical distancing while at LAWSS. More recently, OCWA has implemented an additional screening tool that requires all OCWA staff to report on a number of items on a daily basis prior to entering OCWA operated facilities.

The LAWSS GM continues to be in continual communication with the OCWA Operational Manager on all matters related to the ongoing emergency situation and will advise the Board immediately if a situation arises that will affect the continual operation of LAWSS.

### **Watermain Connection Agreements**

In 2020, the City of Sarnia will install a metered connection between it and St. Clair Township at the intersections of LaSalle Road and Virgil Avenue and at LaSalle Road and Vidal Street South. The connections are needed to improve pressures within the City of Sarnia distribution network. The chamber and associated watermain and appendages will be owned, operated and maintained St. Clair Township and the City of Sarnia. The meters will be read by LAWSS and incorporated into the LAWSS billing system. The new meters will be calibrated by LAWSS annually.

This report was prepared by Clinton Harper, LAWSS General Manager

Attachment(s):

Agreement #1- Watermain Connection Agreement - Sarnia-St. Clair Township - LaSalle Road and Vidal Street South

Agreement #2 -Watermain Connection Agreement - Sarnia-St. Clair Township - LaSalle Road and Virgil Ave

## WATERMAIN CONNECTION AGREEMENT

BETWEEN:

**THE CORPORATION OF THE CITY OF SARNIA**

("City")

-AND-

**THE CORPORATION OF THE TOWNSHIP OF ST. CLAIR**

("Township")

**WHEREAS** the City owns and operates an existing 250 mm diameter water main at or near the intersection of LaSalle Road and Vidal Street South which is connected as an emergency water feed to a 250 mm diameter water main through a City of Sarnia owned gate valve ("GV1"), servicing as an emergency connection to the Shell plant south of LaSalle Rd.;

**AND WHEREAS** the Shell 250 mm diameter watermain on LaSalle Road has been identified as connected to an existing 300mm diameter water main owned by St. Clair Township controlled by a gate valve ("GV2");

**AND WHEREAS** currently the GV2 connecting the Shell 250 mm diameter main to the St. Clair 300mm water main is closed;


**AND WHEREAS** the City wishes to disconnect the supply of water to Shell through the removal and capping of the redundant connection of the City's 250 mm water main to the 250 mm Shell water main, and then commencing a connection of the City's existing 250 mm water main on Vidal Street South to the 300mm water main owned by St. Clair Township;

**NOW THEREFORE, IN CONSIDERATION** of the terms herein, the parties agree as follows:

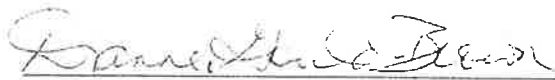
- 1) The City shall connect the City's 250mm water main to the Township's 300m water main, at the City's option and cost. The City shall construct a meter pit chamber and associated works as shown in Appendix "A" (the "Connection") on City's property north of LaSalle Road within the road allowance, to be controlled by a new 250 mm gate valve.
- 2) The Connection shall be owned and maintained by the City.
- 3) During maintenance of the Water Distribution System, the 150mm gate valve south of the chamber may be closed by the City or by the Township, or their designates, upon giving reasonable notice to the other party.
- 4) It is understood that the Lambton Area Water Supply System ("LAWSS") will read the new meter and will bill the City for its water usage and the Township shall be credited for the water supplied to the City through the LAWSS' regular annual billing process.
- 5) The City acknowledges that this connection is to be utilized as a supplement to the existing City's system and not to be used as a primary supply source.
- 6) The City and Township shall perform reasonable means necessary to give effect to their respective duties under this contract, including but not limited to the Township allowing the City access to the Township water main for construction purposes.
- 7) The City indemnifies the Township for losses resultant of the City's negligent or omissive acts. The Township indemnifies the City for losses resultant of the Township's negligent or omissive acts.
- 8) The Township shall inform and obtain the consent of Shell regarding the forgoing disconnection of the water service to the Shell property.

**IN WITNESS WHEREOF** the Parties hereto have executed this Agreement by their duly authorized representatives as at the 20 day of January 2020.

THE CORPORATION OF THE CITY OF SARNIA

A handwritten signature in black ink, appearing to be 'Mike Bradley', written over a horizontal line.

Mayor - Mike Bradley

A handwritten signature in black ink, appearing to be 'Dianne Gould-Brown', written over a horizontal line.

City Clerk - Dianne Gould-Brown

THE CORPORATION OF THE TOWNSHIP OF ST. CLAIR

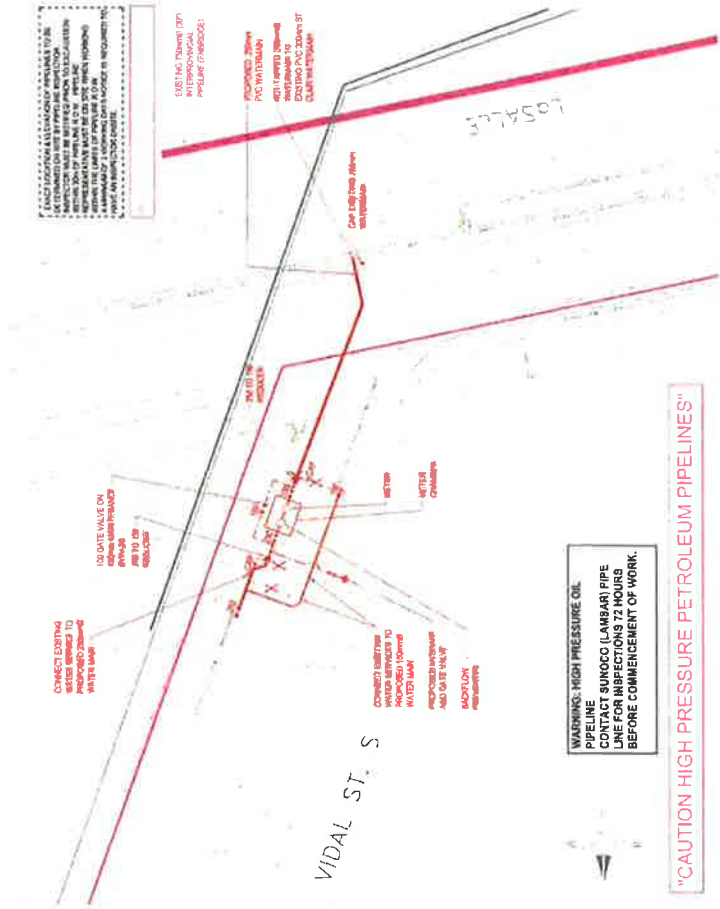
A handwritten signature in black ink, appearing to be 'Steve Arnold', written over a horizontal line.

Mayor - Steve Arnold

A handwritten signature in blue ink, appearing to be 'Jeff Baranek', written over a horizontal line.

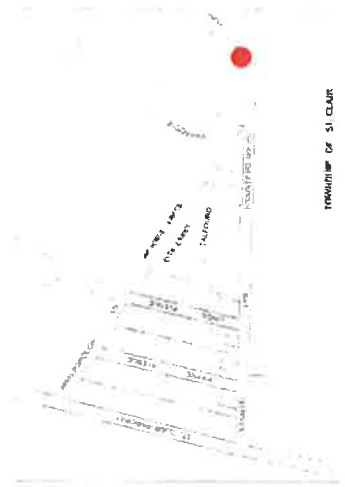
Clerk/ Deputy CAO - Jeff Baranek

## **APPENDIX "A"**

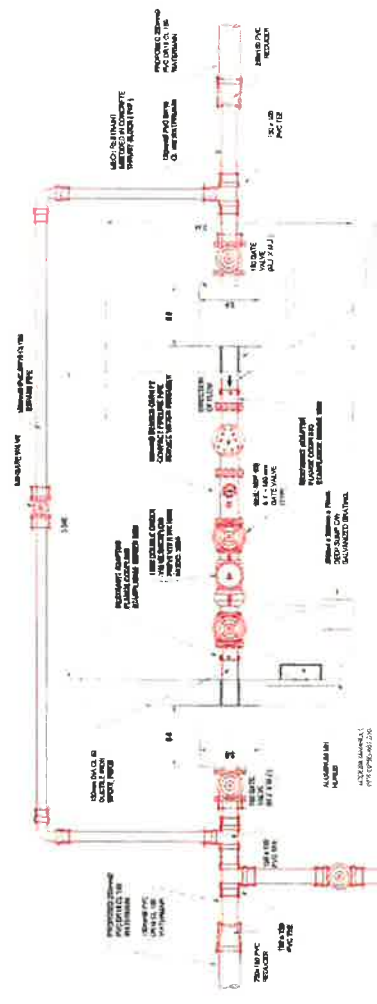


"CAUTION HIGH PRESSURE PETROLEUM PIPELINES"

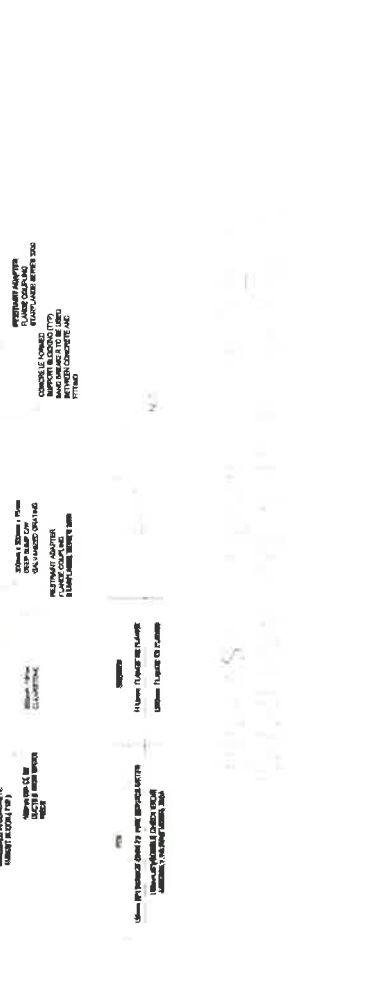
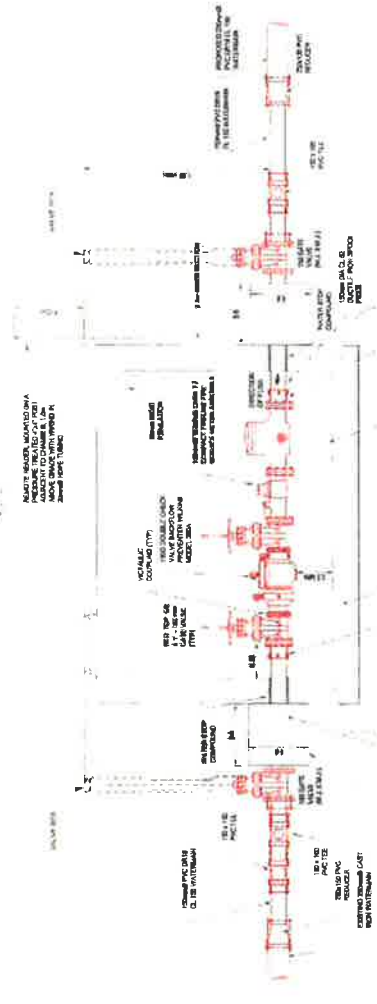
WARNING: HIGH PRESSURE OIL PIPELINE  
CONTACT SUNCOCO (LABART) PIPE LINE FOR INSPECTIONS 72 HOURS BEFORE COMMENCEMENT OF WORK.



TOWNSHIP OF ST. CLAIR



NOTE  
ALL JOINTS AND FITTINGS TO BE RESTRAINED  
AS PER CITY OF SUNCOCO STANDARDS  
ALL FITTINGS TO RECEIVE FULL PETROLIUM  
COATING TREATMENT.



## WATERMAIN CONNECTION AGREEMENT

BETWEEN:

**THE CORPORATION OF THE CITY OF SARNIA**

("City")

-AND-

**THE CORPORATION OF THE TOWNSHIP OF ST. CLAIR**

("Township")

**WHEREAS** the City owns and operates an existing 150 mm diameter watermain at or near the intersection of LaSalle Road and Virgil Ave which is connected to a Sarnia-owned 150mm diameter water main on LaSalle Road, cross-connected to the St. Clair Township 300 mm diameter watermain on St. Clair Parkway through a meter chamber (2012);

**AND WHEREAS** the installation of St. Clair Township 300 mm diameter watermain on LaSalle Road has been completed.

**AND WHEREAS** the City wishes to provide this metered connection to the St. Clair township 300mm water main to assist with the pressure and flow in this area of the City's water distribution system;

NOW THEREFORE, IN CONSIDERATION of the terms herein, the parties agree as follows:

- 1) A meter pit chamber with associated works as shown in Appendix "A" (the "Connection") shall be installed by the City, on City property within the road allowance north of the 300mm diameter St. Clair Township water main.
- 2) The Connection and shall be owned and maintained by the City.



- 3) During maintenance of the Water Distribution System, the 150mm gate valve south of the chamber may be closed by the City or by the Township or the Lambton Area Water Supply System ("LAWSS") upon giving reasonable notice to the other party.
- 4) It is understood that LAWSS will read the new meter and will bill the City for its water usage and the Township shall be credited for the water supplied to the City through the LAWSS' regular annual billing process.
- 5) It is understood by the City that this connection is to be utilized as a supplement to the existing City's system and not to be used as a primary supply source.
- 6) The City and Township shall perform reasonable means necessary to give effect to their respective duties under this contract, including but not limited to the Township allowing the City access to the Township water main for construction purposes.
- 7) The City indemnifies the Township for losses resultant of the City's negligent or omissive acts. The Township indemnifies the City for losses resultant of the Township's negligent or omissive acts.

*[Signature pages to follow]*

**IN WITNESS WHEREOF** the Parties hereto have executed this Agreement by their duly authorized representatives as at the 20 day of January 2020.

THE CORPORATION OF THE CITY OF SARNIA

A handwritten signature in black ink, appearing to be 'Mike Bradley', written over a horizontal line.

Mayor - Mike Bradley

A handwritten signature in black ink, appearing to be 'Dianne Gould-Brown', written over a horizontal line.

City Clerk – Dianne Gould-Brown

THE CORPORATION OF THE TOWNSHIP OF ST. CLAIR

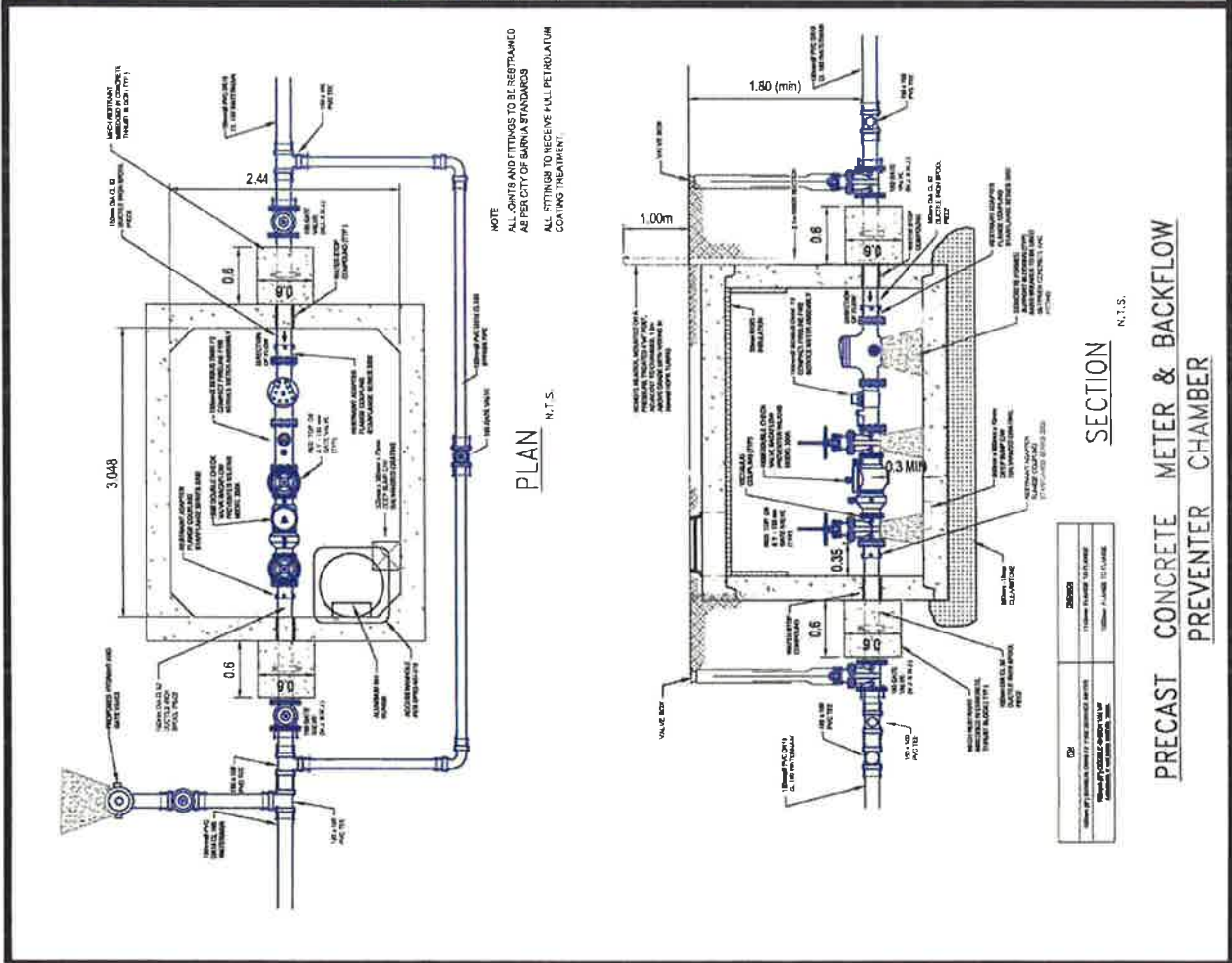
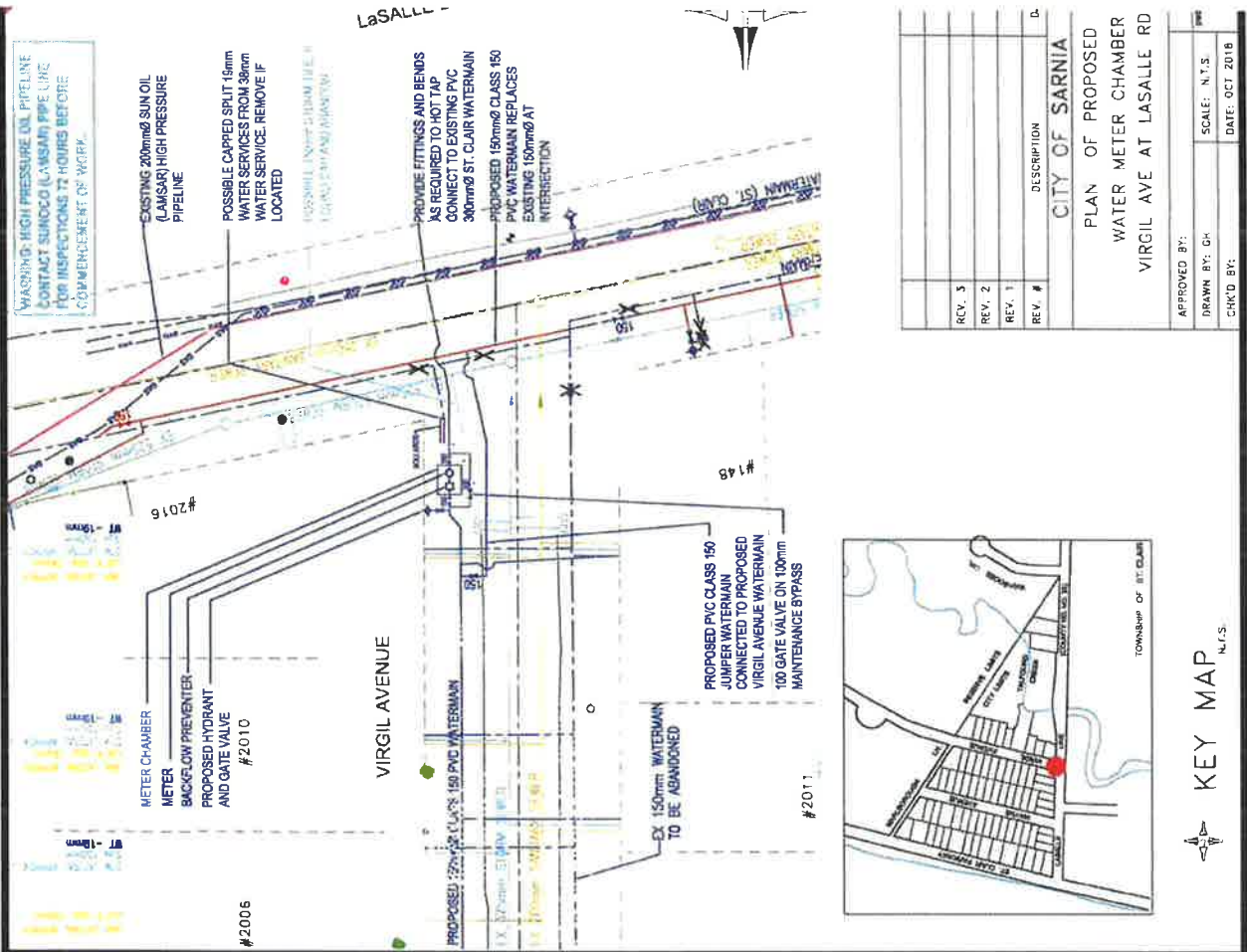
A handwritten signature in black ink, appearing to be 'Steve Arnold', written over a horizontal line.

Mayor – Steve Arnold

A handwritten signature in blue ink, appearing to be 'Jeff Baranek', written over a horizontal line.

Clerk/ Deputy CAO – Jeff Baranek

## **APPENDIX "A"**



Report No.: 2020-07-01
Report Page: Page 1 of 3
Meeting Date: July 30, 2020
File No.:



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

**From:** Clinton Harper  
General Manager

**Subject:** 2020 Major Maintenance Project Substitution Request

## Recommendation

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It is recommended that the LAWSS Board adjust the 2020 Major Maintenance Program as follows:

Remove:

MM20-02 VFD Floc Drive Replacement (\$45,000)

Replace with:

Annual VFD Floc Driver Failure Contingency Allowance (\$11,000)

MM20-02A Actiflo Refurbishment (\$6,000)

MM20-02B Filter Waste Rotork Valve Replacement (\$15,000)

MM20-02C Security System Upgrade (\$5,500)

MM20-02D Fire Panel Integration (\$3,000)

## Background:

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Major Maintenance is defined by the LAWSS/OCWA Management, Operations and Maintenance Agreement as any, "repairs or restoration of Facility equipment, under \$50,000, that is pre-approved by LAWSS, that does not include routine or corrective Maintenance". OCWA continually executes major maintenance projects and reviews and refines what is referred to as the Major Maintenance Program to minimize the likelihood of a corrective maintenance situation.

At the recommendation of staff, in 2019 the LAWSS Joint Board of Management approved \$312,000 in major maintenance work for 2020. The approved 2020 Program includes 18 projects spread between the Water Treatment Plant, West Lambton Pumping Station and distribution/transmission network. This work is currently underway.

Report No.:	2020-07-01
Report Page:	Page 2 of 3
Meeting Date:	July 30, 2020
File No.:	

## Comments:

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Approved project MM20-02 includes the replacement of six drives used to control mixing equipment utilized in the water treatment plant's x3 flocculation trains. These drives had reached their anticipated end of life and had been identified for replacement under the Major Maintenance program. A budget of \$45,000 was established for the project.

At the beginning of 2020, OCWA initiated steps to replace the equipment by completing a final detailed inspection and investigation of best path for replacement. The investigation revealed that replacement drivers, while somewhat expensive, are still readily available. Due to the relatively good condition of the existing equipment and the availability of replacement equipment, OCWA is recommending that a "run-to-failure" scenario for the drives be implemented. The criticality of a single drive failure is very low due to multiple redundant trains and therefore failed equipment can be replaced as needed with minimal impact to operations. A Business Case, developed by OCWA is attached to this report and represents the Board's most economical option for this particular equipment at this time.

If the Board permits the "run-to-failure" scenario for the VFD Floc Mixers, MM20-02 will be removed from the 2020 Major Maintenance program and replaced with a \$11,000 annual contingency allowance. The contingency allowance will be submitted annually until the drives have all been replaced. OCWA suggests x4 possible alternative projects that could be executed in 2020. The substitute projects are also described in the attached Business Case.

### 1. Actiflo Refurbishment (\$6000)

The Actiflo Systems is part of the Water Treatment Plant's Residual Management System (RMS). A recent investigation of the subsystem, complete by OCWA, has identified an inefficiency. The refurbishment is necessary to improve process operation and reduce sand use which will provide cost savings.

### 2. x10 Filter Waste Valve Replacement (5year program. 2 valves/year @ \$15,000/year)

The Water Treatment Plan utilizes x10 conventional dual media filters in the treatment process. Staggered and regular backwashing of the dual media filters is necessary for uninterrupted treatment of raw water at the WTP. The waste valve allows backwashed debris to be directed to the RMS. This work was identified in the capital plan and scheduled to begin in 2021.

### 3. Security System Upgrade and Fire Panel Integration (\$8,500)

Report No.: 2020-07-01
Report Page: Page 3 of 3
Meeting Date: July 30, 2020
File No.:



Updating and integration of the Intrusion and Man-Down and Fire Panel system. This work was identified in the Capital plan and scheduled to begin in 2021.

## Consultation:

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This report was prepared in consultation with the LAWSS General Accountant and OCWA Operational Manager

## Financial Implications:

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Approved- MM20-02 VFD Floc Replacement	\$11,000*	\$45,000
Proposed- MM20-02A Actiflo Refurbishment	\$6,000	
Proposed- MM20-02B Filter Waste Rotork Valve Replacement	\$15,000	
Proposed- MM20-02C Security System Upgrade	\$5,500	
Proposed- MM20-02D Fire Panel Integration	\$3,000	
<b>Savings to 2020 Budget</b>	<b>\$4,500</b>	

\*The \$11,000 will be included in the 2020 Major maintenance budget and will be allocated to an annual contingency allowance beginning in 2021.

This report was prepared by Clinton Harper, General Manager

Attachment(s): Letter Dated July 16, 2020 Subject: Major Maintenance #20-02 (VFD Floc Mixer Replacement)

**Date:** July 16, 2020

**To:** Clinton Harper, General Manager LAWSS

**From:** Mark Harris, Senior Operations Manager, OCWA

**RE:** Major Maintenance #20-02 (VFD Floc Mixer Replacement)

**Overview**

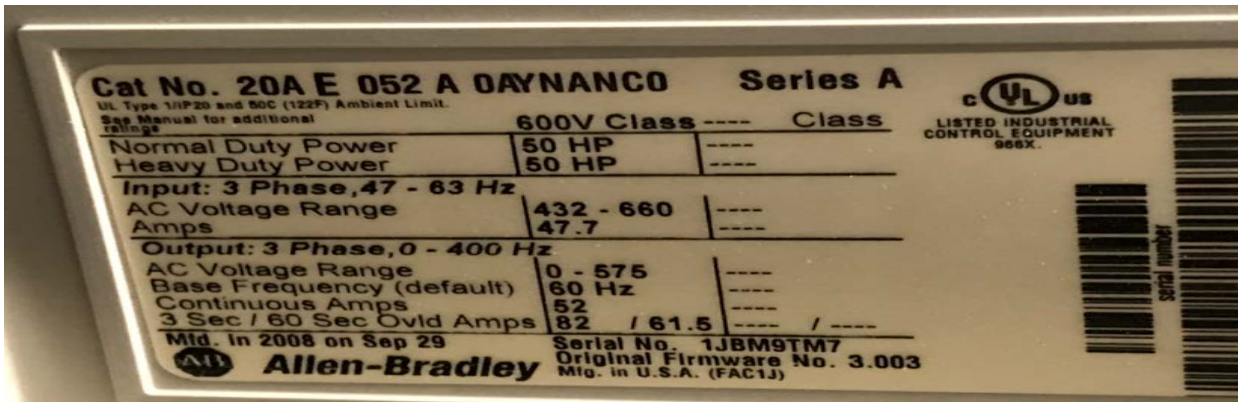
It was proposed that a Major Maintenance Capital Program be initiated in 2020 to start replacing the Floc Mixer VFD's as they were approaching the end of their anticipated life cycle. The picture below details a PowerFlex 70 VFD for Flocculator #3.





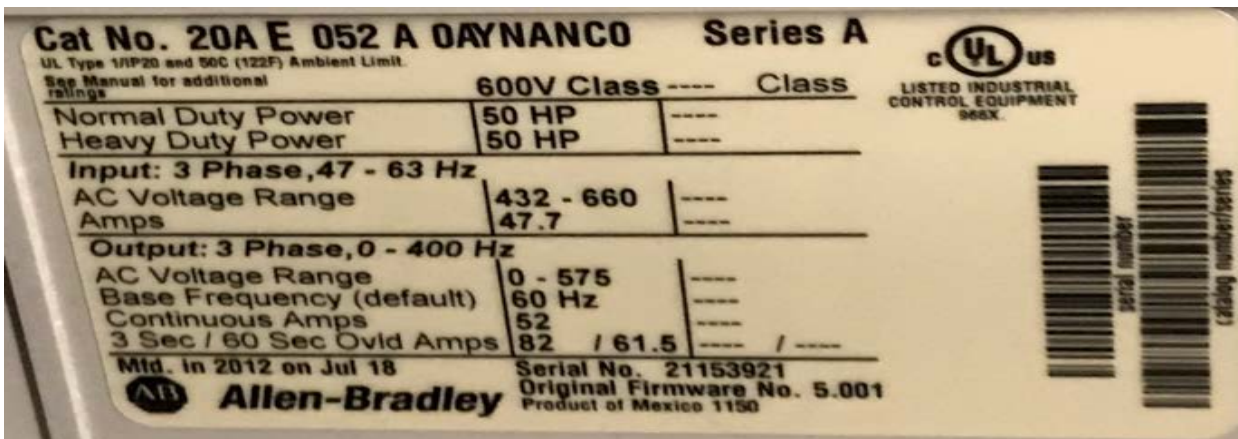
The Allen Bradley Power Flex 70 VFD Drives that are utilized on the 6 Flocculators were manufactured on the following dates:

VFD #1 September 29, 2008 (based on the condition of the label, you can tell that the environment is clean)



VFD #2 September 29, 2008

VFD #3 July 18, 2012



VFD #4 September 29, 2008

VFD #5 September 29, 2008

VFD #6 September 29, 2008

I have performed an investigation with respect to the VFD Floc Mixers with Electrozaad who are the licensed Rockwell Distributer in the area. They indicate that the existing VFD's are 10 years old and that these current VFD's are still being produced for another two years before phase-out. However, for any new quotes it is recommended that the client move to the Powerflex 753 AC VFD in order to avoid legacy issues.

I asked Electrozaad some questions based on their experience with the existing Powerflex 70 drive as I am not aware of any major concerns with the current drives at LAWSS and Electrozaad provided the following details: the drives when run continuously will have a much longer life expectancy. They will run forever if no power spikes and at a constant speed with no variation. The life expectancy may also be extended in a dust proof climate controlled room.

A document review was conducted through referencing an Allen-Bradley Service Bulletin which stated ***"The life expectancy of the power section components is designed to last for the life of the drive for wall-mounted drives. The actual life is dependent on ambient and environmental conditions, load, variation of load, power system configuration, output and carrier frequency configuration, cooling system, and other application-related factors. The***

***design life expectancy of the overall components normally exceeds 10 years (in some cases can last 20 years or more) in normal operating environments.”***

Based on the above, we generally have a stable VFD operating set-point that remains at a constant speed based on the floc mixer application and we also have a clean room that is climate controlled so this would be an ideal application to extend the asset life expectancy.

I reviewed the criticalness of a potential VFD Floc Mixer failure with Jodi Stradeski and Dean Sitzes and it was felt that these would not be our highest priority items/risk for replacement. If a failure were to occur, we could easily maintain operations as replacement VFD's are readily available. Going forward, we may want to carry an annual Major Maintenance Project that would cover the cost of one VFD replacement as required in order to manage the risk.

On that basis, I would like to request the removal of the MM20-02 VFD Floc Mixers Replacement for 2020, with funds reallocated to allow proposed 2021 Major Maintenance projects to move forward for consideration to be completed in 2020. The projects for consideration to be moved forward are as follows:

MM 20-02A	Actiflo Refurbishment	\$6,000.00 + HST
MM 20-02B	Filter Waste Rotork Valve Replacement (2 valves/year for a 5 year period) 2020, 2022, 2023, 2024, 2025. The 2020 cost would be \$15,000.00 + HST for two electric valve actuators including limit set-up by supplier.	
MM 20-02C	Security System Upgrade – Intrusion/Man-down Conversion to DMP Panel	\$5,443.08 + HST
MM 20-02D	Fire Panel Integration	\$1,957.08 plus Fire Company on-site costs, electrical = \$2,957.08 + HST

The VFD project had a budget approval of \$45,000.00. The revised budget based on the four major maintenance projects proposed would be \$29,400.16. As mentioned earlier, if we are concerned about risk of a VFD Floc Drive failure, we could continue to carry an annual budget item of \$11,000.00 to manage the risk. New replacement drives are readily available. I just don't want to replace items that are operating fine and still have potential asset life remaining and are in a low risk application based on our redundancy in that specific unit process.

Feel free to let me know if you have any questions.

### **Recommendation**

It is recommended that the VFD Floc Mixers Replacement program with a budget of \$45,000.00 be cancelled in 2020, and that the following four projects be allowed to move forward: Actiflow Refurbishment, Filter Waste Rotork Valve Replacement, Security System Upgrade, and Fire Panel Integration at a budget price of \$29,400.16 + HST.



Mark Harris

Senior Operations Manager

Report No.:	2020-05-06
Report Page:	Page 1 of 2
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:** WLPS Special Valve Project- Contractor Selection

## Recommendation

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It is recommended that Dielco Industrial Contractors Ltd. be awarded the Special Valve Replacement Project and supply/install a new 36" backpressure sustaining valve, as detailed in OCWA's May 2020 proposal, for the quoted amount of \$152,750+HST.

## Background:

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The West Lambton Pumping Station is a LAWSS facility located at 12 Indian Road in Sarnia. 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 major system component, a 36" diameter backpressure sustaining valve, used to regulate pressure in the transmission/distribution network needs to be brought offline and replaced.

OCWA Engineering group was hired to finalize the project scope, tender the project, provide project management and oversee final commissioning to either rebuild or replace the existing valve. A subsequent project proposal recommended the installation of a new 36" Singer single chamber diaphragm valve and was endorsed by the LAWSS Board, at staff recommendation at the May 28, 2020 meeting.

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 from a capital cost, suitability and maintenance standpoint.

At the Board's direction, OCWA was directed to proceed to the tendering portion of the project.

## Comments:

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OCWA issued a Request for Services to five of their approved Vendors of Record for the purpose of selecting a contractor to complete project scope. Deadline for responses was

Report No.: 2020-05-06
Report Page: Page 2 of 2
Meeting Date: May 28, 2020
File No.:



July 2, 2020 and yielded 5 bidders. The responses were evaluated and given a score that compared technical merit. Based on this evaluation OCWA has recommended that Dielco Industrial Contractor Ltd. be selected as the successful bidder and be awarded the project at the quoted amount of \$152,750+HST. OCWA's bidder presentation is provided in the attached report.

## Consultation:

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

## Financial Implications:

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On May 28, 2020, a budget of \$179,000 was established for this project. The established budget is expected to be sufficient to cover all project costs.

This report was prepared by Clinton Harper, LAWSS General Manager

Attachment(s): Letter Subject: Recommendation for the selection of the highest scoring Bidders for RFS#1623268- Under Mechanical Maintenance Services VORs in Southwestern Ontario

Memo

**To:** Clinton Harper  
**From:** Nicholas Wilson, Ontario Clean Water Agency Southwest Region  
**Date:** July 7, 2020

**Re: Recommendation for the selection of the highest scoring Bidders for  
RFS#1623268- Under Mechanical Maintenance Services VORs in Southwestern  
Ontario**

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**Executive Summary**

The Ontario Clean Water Agency (OCWA) issued a Request for Services (RFS) to five of our Vendors of Record (VOR) for the purpose of selecting a contractor to supply and install two 36" butterfly isolation valves and one 36" backpressure sustaining valve at the West Lambton Pumping Station on Indian Road.

The highest scoring bidder will provide the items listed above and the other necessary services to complete the project outlined in the RFS.

To meet the procurement requirements outlined above, Procurement has issued RFB#OCWA190611- MECH-HURON-ELGIN-SW on Jaggaer electronic tendering service for thirty (30) calendar days. The RFB was released on Jaggaer on June 11, 2019.

Thirty seven (37) companies downloaded the RFB document from Jaggaer. However, only fifteen (15) bids were received by the closing date of July 13, 2019. These 15 successful bidders are currently under our VOR with master agreements in place.

The RFS (Request for Service) was issued to five (5) of these VOR's on June 5, 2020. The bidding closed on July 2, 2020.

**RFS Evaluation Process**

The Evaluation was completed by the Senior Operations Manager of Capital Projects. Bids were evaluated in accordance with the stages as detailed within the RFS documentation. These stages are as follows:

**Stage I – Evaluation of Implementation Plan**

**Stage II – Pricing**

- Cumulative Score and Selection of the Highest Scoring Bidder

Of the five (5) bidders, the four (4) bidders, (Dielco, Nevro Sales (2004) Ltd., Shelley Machine and Marine, Trade Mark Industrial) who submitted their bids were evaluated for stage I.

All four (4) bids were evaluated in Stage I for Implementation Plan for a total evaluation weight of 30%. The written Bids were scored using weighted evaluation scoring detailed in the RFS.

The pricing was scored at 70%.

At the end of pricing stage, all scores from Stage I and Stage II were accumulated together.

The scoring summary of these bidders have been detailed in table below:

Ontario Clean Water Agency West Lambton Pumping Station Backpressure Sustaining Valve RFS Evaluation				
Contractor	Work Plan Points (30)	Price Points (70)	Price	Total Points (100)
Dielco	28	67.8	\$152,750	95.8
Nevtro	0	70.0	\$147,934	70.0
TradeMark	25	55.8	\$185,644	80.8
Shelly	25	65.9	\$157,022	90.9

### **Recommendation for Award & Rationale**

The scores have been evaluated and a recommendation has been reached.

It is recommended that the Dielco are to be awarded the contract because their bid was determined to meet or exceed all the requirements, scoring the most points.

### **Next Steps**

- Notification of award to the selected bidder
- Negotiate and execute contract Agreement with the successful bidder
- Notify unsuccessful bidders

### **Approval**

Procurement requests your approval in order to proceed with the recommended bidder (Dielco), for a period of two (2) years for the total value (approx.) of \$152,750.

Report No.: 2020-07-04
Report Page: Page 1 of 2
Meeting Date: July 30, 2020
File No.:



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

**From:** Clinton Harper  
General Manager

**Subject:** Supervisory Control and Data Acquisition (SCADA) Master Plan-  
Consultant Selection

## Recommendation

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It is recommended that the LAWSS Joint Board of Management authorize Eramosa to complete RFP 20-01 SCADA Master Plan and Associated Works for the quoted amount of \$95,534.25+HST.

## Background:

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On February 27, 2020, a scope of work for a SCADA Master Plan was endorsed by the LAWSS Board.

The work involves developing a plan that will include the following three components:

1. Develop a SCADA Master Plan for LAWSS for the next 10 years.
2. Develop a SCADA Standard that will allow equality amongst bidders and provide LAWSS transparency, through the Request for Tenders process for future capital upgrade projects.
3. Develop a SCADA Equipment / Instrumentation Specification for acceptable suppliers that will ensure compatibility of LAWSS when completing capital upgrade projects.

Once complete, the SCADA capital plan will be integrated into the overall LAWSS Capital Plan to ensure the ongoing flexibility and reliability of the system.

## Comments:

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Five proposals for the project were received. A Qualification-Based Selection process utilizing a "two (2) step method" procurement process was utilized for proposal evaluation.

The first step (Phase 1) consisted of technical and qualitative information and was opened and evaluated first. The second step (Phase 2) consisted of cost and price information which may be opened and evaluated only after the information in Phase 1 has been evaluated in accordance with the requirements of the RFP document.



Report No.: 2020-07-04
Report Page: Page 2 of 2
Meeting Date: July 30, 2020
File No.:



Technical proposal Submissions were assessed and scored based on the evaluation criteria established in Table #1.

<b>Table #1</b>	
<b>Criteria</b>	<b>Weighting</b>
Project Manager Qualifications and Experience on Directly Related Projects	15
Technical and Support Staff Qualifications and Experience on Directly Related Projects	25
Understanding of Project Goals, Methodology, and Approach	25
Implementation Strategy, Schedule of Key Activities, and Commitment to Maintaining Timeline and Deliverables	25
References (3 comparable projects including contacts)	10

The Technical Proposal must receive a score of seventy (70) points or greater, based on the technical evaluation criteria to be considered for the cost proposal phase. Proposals that did not achieve this score were not considered further.

The results of the evaluation process are presented in Table #2.

<b>Table #2</b>			
<b>Company</b>	<b>Technical Score</b>	<b>Price (+HST)</b>	<b>Price/Point</b>
Eramosa	89.50	\$95,534.25	\$1067
Cole	86.50	\$169,531.00	\$1960
NLS	78.50	\$131,940.00	\$1681
Summa	76.50	\$110,121.33	\$1439
OCWA	63.75	-	-

## Consultation:

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OCWA operational staff assisted in the development of the project scope. Technical Proposal evaluation was undertaken by the LAWSS General Manager.

## Financial Implications:

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The LAWSS Joint Board of Management established a budget of \$150,000 in 2020 for this work. It is expected that the project can be executed entirely within the established budget.

This report was prepared by Clinton Harper, General Manager

Attachment(s): none

Report No.:	2020-07-05
Report Page:	Page 1 of 3
Meeting Date:	July 30, 2020
File No.:	



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

**From:** Clinton Harper  
General Manager

**Subject:** Engineering Design and Project Management for Main Plant  
HVAC – Consultant Selection

## Recommendation

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It is recommended that the LAWSS Joint Board of Management hire Building Innovation to complete RFP 20-02 Engineering Design and Project Management for Main Plant HVAC for the quoted price of \$75,000+HST.

## Background:

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On February 27, 2020, a scope of work for Engineering Design and Project Management for Main Plant HVAC was endorsed by the LAWSS Board.

Goals of this project include:

- Replace/right size HVAC Equipment that has surpassed its life expectancy.
- Reinstate dehumidification.
- Correct the remaining HVAC once-through water utilization that is currently being used for cooling and dehumidification.
- Address potential risk of uninsulated components to condensation.
- Update and combine the various building automation systems.

## Comments:

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Of the three consultants that were approached, two proposals for the project were received. A Qualification-Based Selection process utilizing a “two (2) step method” procurement process was utilized for proposal evaluation.

The first step (Phase 1) consisted of technical and qualitative information and was opened and evaluated first. The second step (Phase 2) consisted of cost and price information which may be opened and evaluated only after the information in Phase 1 had been evaluated in accordance with the requirements of the RFP document.

Technical proposal Submissions were assessed and scored based on the evaluation criteria established in Table #1.

Report No.: 2020-07-05
Report Page: Page 2 of 3
Meeting Date: July 30, 2020
File No.:



<b>Table #1</b>	
<b>Criteria</b>	<b>Weighting</b>
Project Manager Qualifications and Experience on Directly Related Projects	15
Technical and Support Staff Qualifications and Experience on Directly Related Projects	25
Understanding of Project Goals, Methodology, and Approach	20
Implementation Strategy, Schedule of Key Activities, and Commitment to Maintaining Timeline and Deliverables	20
Innovation, Energy Efficiency and Life Cycle	10
References (3 comparable projects including contacts)	10

The Technical Proposal must receive a score of seventy (70) points or greater, based on the technical evaluation criteria, to be considered for the Cost Proposal phase. Proposals that do not achieve this score will not be considered further.

The results of the evaluation process are presented in Table #2.

<b>Table #2</b>			
<b>Company</b>	<b>Technical Score</b>	<b>Price (+HST)</b>	<b>Price/Point</b>
Chorley + Bisset	89.50	\$125,900	1407
Building Innovation	73.5	\$75,000	1020

Although Building Innovation did not score the highest on the Technical Score, further discussions with Building Innovation on this project satisfied us that they are capable to complete the project on time and within budget.

## Consultation:

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OCWA operational staff assisted in the development to the project scope. Technical Proposal evaluation was undertaken by the LAWSS General Manager and the OCWA Senior Operations Manager.

## Financial Implications:

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The LAWSS Joint Board of Management established a budget of \$111,000 in 2020 for Engineering Design and Project Management for Main Plant HVAC. The re-build itself is scheduled to take place in 2021.

This report was prepared by Clinton Harper, General Manager

Report No.: 2020-07-05
Report Page: Page 3 of 3
Meeting Date: July 30, 2020
File No.:



Attachment(s): none

Report No.:	2020-07-06
Report Page:	Page 1 of 2
Meeting Date:	July 30, 2020
File No.:	



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

**From:** Clinton Harper  
General Manager

**Subject:** Fieldgate Network Upgrade – System Selection

## Recommendation

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It is recommended that the LAWSS Joint Board of Management increase the Fieldgate Network Upgrade budget by \$11,353.54 and authorize OCWA to complete a remote flow monitoring upgrade as outlined in Proposal dated July 7, 2020 for the quoted amount of \$84,860+HST.

## Background:

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In 2020, The LAWSS Joint Board of Management established a budget of \$75,000 for a Fieldgate Network Upgrade Project. LAWSS utilizes a network of 12 water meters to track how potable water is distributed throughout the LAWSS transmission/distribution network. The flow information is transmitted back to the LAWSS WTP in real-time over the existing domestic GSM cellular network. Flow information transmitted is the same information used to create the monthly flow summary sheets and eventually used to establish how budget cost is allocated between the Member Municipalities.

The GSM cellular network that the current communication system uses to transmit the information is scheduled to be discontinued by the provider at the end of the year. It is advisable that the cellular communication equipment owned by LAWSS at each of the 12 sites be upgraded to allow communication with the domestic LTE cellular communication system in advance of the GSM shutdown.

## Comments:

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The existing program installed at the LAWSS WTP that utilizes the GSM cellular network to send and receive flow information and arrange the information so it can be accessed is a propriety software called Fieldgate. The Fieldgate software was developed by Endress+Hauser and does not integrate with the SCADA Historian and cannot be accessed through the LAWSS SCADA network. Unlike SCADA historian which holds the information indefinitely, the Fieldgate system is limited and currently configured to a 3-month window after which time the data is no longer retrievable. While this retention

Report No.: 2020-07-06
Report Page: Page 2 of 2
Meeting Date: July 30, 2020
File No.:



time does not affect operations, it has a major impact on the development and planning of the System by limiting historic data review to month sized data chunks.

## Consultation:

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This report was prepared in consultation with the LAWS General Accountant and OCWA Operational Staff.

## Financial Implications:

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LAWSS was advised in 2019 of the upcoming requirements to upgrade the flow meter communication system to LTE and a quote was requested of Endress+Hauser to upgrade the existing equipment to accept the change. Endress+Hauser provided a quote for \$74,875+HST to supply and install all equipment necessary to ensure uninterrupted communication with the existing Fieldgate system. At the recommendation of staff, the LAWSS Joint Board of Management budgeted \$75,000 in 2020 to complete the upgrade ahead of the deadline.

Early in 2020, OCWA Engineering group was requested to review the flow meter communication requirements and provide an alternate solution, if possible, that would allow for the integration of the flow information into the existing LAWSS SCADA. The request came from LAWSS as a result of concern that the cost to upgrade of the Fieldgate system from GSM to LTE was excessive and would maintain the limiting propriety software. OCWA provided a quote for \$84,860+HST to complete the same work with the added feature of completely integrating the data into SCADA and building the HMI screens etc. needed. The main benefits of OCWA's proposal include:

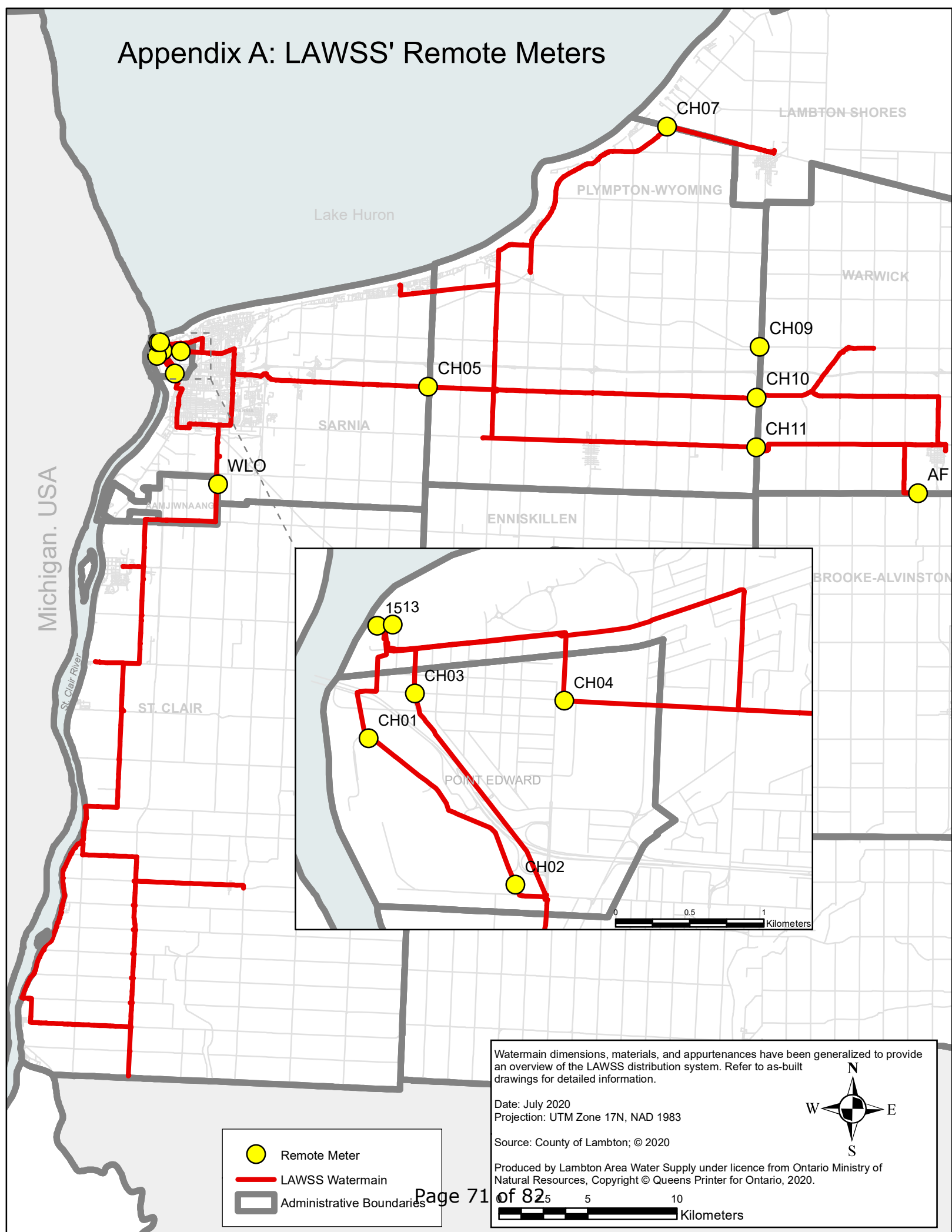
1. Enhanced distribution flow monitoring.
2. Enhanced ability to detect and pinpoint watermain breaks in real-time.
3. Enhanced data storage.

The net cost of the OCWA project is \$11,353.54 above the 2020 budget and, if acceptable to the LAWSS Board, will be transferred from reserves to cover project cost.

This report was prepared by Clinton Harper, General Manager

Attachment(s): Appendix A: LAWSS' Remote Meters

# Appendix A: LAWSS' Remote Meters



Report No.:	2020-07-07
Report Page:	Page 1 of 2
Meeting Date:	July 30, 2020
File No.:	



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

**From:** Clinton Harper  
General Manager

**Subject:** 2020 and 2021 Meeting Format and Schedule

## Recommendation

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It is recommended that the LAWSS Joint Board of Management endorse amending By-Law 4-2020 and establish a meeting schedule format for the balance of 2020 and 2021 as described below.

## Background:

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Rules of governance for Municipalities in Ontario are established by the Municipal Act, 2001. Currently in Ontario, Municipalities are not permitted to conduct fully electronic meetings unless an emergency has been declared by the Premier, Cabinet or the municipal Head of Council under the Emergency management and Civil Protection Act. On July 21, 2020, Bill 197 came into effect and amend several provisions of the Municipal Act, 2001 to allow a municipality to amend its procedural by-laws to provide for electronic participation in meetings beyond an emergency declaration.

## Comments:

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Attached is a draft amending by-law designed to amend LAWSS By-Law 2-2020 "A By-Law to regulate the proceedings of Lambton Area Water Supply System Joint Board of Management" to permit Electronic Meetings. If endorsed, the changes to the Procedural By-law will permit the Board to proceed with electronic meetings at its discretion.

Historically, the LAWSS Board meets on the last Thursday of each month and roughly ten times per year. At the May and September meetings, the Financial Audit and the Budget Proposal are presented respectively. If the Board desires a mixture of electronic and non-electronic meetings it is recommended that the May and September meetings are planned to be non-electronic in nature.

LAWSS staff is striving to develop a systematic approach to project design, tendering and execution. It is expected that the February meeting will become an important month



Report No.: 2020-07-07
Report Page: Page 2 of 2
Meeting Date: July 30, 2020
File No.:



for awarding the upcoming year's Capital Projects. February is therefore submitted as an additional meeting month that a non-electronic format is expected to be beneficial.

Lastly, the LAWSS Board is accustomed to a Christmas lunch on the second Thursday of December. The December meeting is submitted as the fourth non-electronic meeting suggested.

Proposed meeting format is as follows:

<u>Proposed 2020 Meeting Schedule</u> <u>(assuming non-electronic available)</u> August 27, 2020- electronic September 24, 2020- electronic October 29, 2020- Budget Proposal (late in 2020 to allow time for WMP Development) November 26, 2020- electronic December 10, 2020- Christmas Lunch	<u>Proposed 2021 Meeting Schedule</u> January 28, 2021- electronic February 25, 2021- Capital Project Award March 25, 2021- electronic April 29, 2021- electronic May 27, 2021- Financial Audit June 24, 2021- electronic July 29, 2021- electronic August 26, 2021- electronic September 30, 2021- Budget Proposal October 28, 2021- electronic November 25, 2021- electronic December 9, 2021- Christmas Lunch
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## Consultation:

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Stephane Thiffeault, County of Lambton Deputy CAO was consulted with respect to development of the amending by-law and the application of the Municipal Act, 2001 to the LAWSS Board.

## Financial Implications:

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It typically costs about \$250/meeting of the LAWSS Board when meeting in a non-electronic setting versus \$20/meeting for the LAWSS Board to meet electronically. While the impact on the budget is negligible there is a savings associated with electronic meetings versus non-electronic meetings.

This report was prepared by Clinton Harper, LAWSS General Manager

Attachment(s): DRAFT Amending By-Law 4-2020

**By-Law No. 4-2020**

**"A By-Law to Amend By-Law No. 2-2020 to permit Electronic Meetings"**

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

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

**AND WHEREAS** the Lambton Area Water Supply System Joint Board of Management considers it desirable to be able to hold meetings electronically.

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

1. The By-Law is hereby amended by repealing Section 42. Emergency meetings During Declared Emergency;
2. The By-Law is hereby amended by adding thereto a new Section 43 that reads as follows:

**43. Electronic Meetings**

- a. For the purposes of this Section 43, the following terms shall have the following meaning:

**"Electronic Meeting"** means a meeting called by the Chair and held in full or in part through such electronic means selected by the Chair, in consultation with the General Manager, taking into account LAWSS resources, which may include, but not be limited to: audio telephone conference, video telephone conference, or online through the Internet or otherwise via the Internet, and with or without in person attendance.

- b. Notwithstanding any other Part hereof, at the call of the Chair a regular or special meeting of the Board may be conducted by Electronic Meeting, in accordance with this Section and any other protocol and/or policy as may be approved by Board from time to time.
- c. A Member attending and present during an Electronic Meeting shall be counted for purposes of quorum at the commencement and at any point in time during the Meeting, and shall be entitled to vote through a vote recorded by the General Manager as if they were attending the Meeting in person.
- d. An Electronic Meeting may include a Closed Meeting, which shall be conducted with members of the public excluded therefrom and in accordance with this Section.

**By-Law No. 4-2020**

**“A By-Law to Amend By-Law No. 2-2020 to permit Electronic Meetings”**

- e. A public notice of an Electronic Meeting shall include sufficient information as to provide the public with the ability to reasonably access and/or otherwise observe, by such means identified in the notice, the open session of the Electronic Meeting.
  - f. Despite any other Section hereof any person desiring to present verbally to, or to make a request of, or present correspondence to, the Board at and/or during an Electronic Meeting, shall first give the requisite notice thereof to the General Manager and meet all other requirements of these Rules of Procedure, and provided such requirements have been met, shall only be permitted to make such presentation, request or present such correspondence in writing, provided further that such written presentation, request and/or correspondence is received by the General Manager no later than 12:00 noon on the seventh day immediately preceding the Electronic Meeting.
  - g. The Rules of Procedure shall continue to apply to an Electronic Meeting held pursuant to this Section 43. In the event of any inconsistency and/or conflict between this Section 43 and any other Section of these Rules of Procedure, this Section 43 shall prevail to the extent of the inconsistency and/or conflict.
2. By-Law 4-2020 as amended is hereby ratified and confirmed in all other respects.
3. This By-law shall come into force and effect immediately upon its passing.

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

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Mayor Bev Hand, Chair

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Clinton Harper, General Manager

Report No.: 2020-07-08
Report Page: Page 1 of 3
Meeting Date: July 30, 2020
File No.:



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

**From:** Clinton Harper  
General Manager

**Subject:** Fuel Storage and Delivery System- Update

## Recommendation

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It is recommended that the LAWSS Joint Board of Management:

1. Approve EXP's Fee Proposal for Engineering Services to incorporate TSSA Deficiencies related to existing diesel fuel system in the amount of \$25,000+HST.
2. Allow for WELECO to be designated as preferred vendor for supply of fuel system components/hardware.
3. Increase overall project budget by \$275,000 to facilitate permanent upgrade to existing fuel storage and delivery system. Engineering Services included.

## Background:

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In response to the TSSA inspection, a complete fuel system audit was completed in May 2020 by a certified technician. The audit revealed substantial deficiencies in the existing fuel storage and delivery system. The LAWSS Board was made aware of the situation at the June 25, 2020 meeting. After this information was presented to the LAWSS Board in June, LAWSS staff and EXP continued to work with TSSA to refine and finalize the effort needed to bring the existing fuel system into compliance with TSSA requirements.

On July 6, 2020, LAWSS received TSSA approval to temporary use the existing fuel oil system until a compliant fuel system can be established. The variance expires on December 31, 2021 and lists 14 TSSA requirements and conditions. The key requirements are as follows:

1. A plan to upgrade the fuel oil system is to be submitted to TSSA by October 1, 2020.
2. All major project milestones must be reported to TSSA upon completion.
3. The current condition of the existing fuel storage and delivery system is classified as unacceptable with no immediate hazard. If the classification deteriorates the variance will become null and void.
4. LAWSS accepts full responsibility for all damages resulting from the use of the system.

Report No.: 2020-07-08
Report Page: Page 2 of 3
Meeting Date: July 30, 2020
File No.:



5. LAWSS indemnifies TSSA in the event that a third-party claim arises against TSSA as a result of the variance.

The variance has been posted with the equipment and is available and accessible to OCWA and Contractors working in the WTP. The full TSSA document is attached to this report.

## Comments:

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The approval of the recommendation will fulfill the TSSA requirements and conditions and facilitates the installation of a compliant system.

## Consultation:

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This report was prepared in consultation with OCWA Operational Staff, EXP Services Inc. and TSSA and the LAWSS General Accountant.

## Financial Implications:

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At the time of the June Board meeting there was still insufficient information for EXP to develop a proper quote to incorporate the fuel storage and delivery system project into the overall replacement project involving standby power and the main plant switchgear. In June, LAWSS was provided a very conservative estimate of between \$750,000-\$1,000,000 to address all deficiencies listed in the audit. Since June, extensive consultation with TSSA and with knowledgeable vendors has helped refine the project scope and budget.

On July 22, 2020, EXP was provided a quote for \$25,000+HST for Engineering Services to incorporate TSSA Deficiencies related to their current Standby Power and Main Switchgear Replacement project. EXP has engaged Ainsworth and WELECO heavily in the development of the final solution for the fuel storage and delivery system. To expedite the tendering process EXP is recommending that WELECO be designated as the preferred vendor of fuel system components for this project. WELECO is a material supplier that was referred to the project by Ainsworth and has provided ongoing project support and a comprehensive material list.

It is estimated that a complete fuel storage and delivery system solution, that address all TSSA deficiencies, can be executed for \$275,000. Based on the timing established by the TSSA Variance it is recommended that this work be added to the existing project. If approved by the Board \$275,000 will need to be transfer from reserves to cover the increased project cost.

Report No.:	2020-07-08
Report Page:	Page 3 of 3
Meeting Date:	July 30, 2020
File No.:	



This report was prepared by Clinton Harper, LAWSS General Manger

Attachment(s):

TSSA FS Variance

EXP Letter Subject- New Diesel Fuel System Replacement vendor recommendation.



July 23, 2020

EXP Ref: **18-051**

**VIA EMAIL ONLY JULY 23, 2020**  
([clinton.harper@lawss.org](mailto:clinton.harper@lawss.org))

Lambton Area Water Supply System  
1215 Fort Street  
Sarnia, ON N7V 1M1

Attention: Clinton Harper  
General Manager

Dear Clinton,

Request for Proposal No. 18-131  
Existing diesel fuel system upgrade

#### **NEW DIESEL FUEL SYSTEM REPLACEMENT VENDOR RECOMMENDATION (R1)**

As a part of the Generator replacement project, EXP had engaged with TSSA to verify the status of the existing fuel system in order to determine code compliance and compile a list of deviations which would need to be rectified in order to get TSSA approval. To assist with this effort, EXP engaged a 3<sup>rd</sup> party TSSA certified agency (AINSWORTH) to perform a comprehensive fuel system audit to compile a list of all the deficiencies in the existing system which were either non-compliant at the time of installation (2006) and/or not meeting the currently applicable code (2015).

During this investigation and analysis, EXP had to reach out to a specialized fuel system supplier (WALECO) who were referred to EXP by AINSWORTH as subject matter experts due to their experience in providing TSSA certified complete system solutions for various critical facilities, including hospitals.

EXP has been having detailed discussions with WALECO on the equipment being proposed for the fuel system upgrade, which would rectify all the existing deficiencies as well as provide LAWSS with a more up-to date and user-friendly fuel system solution. WALECO has displayed detailed knowledge of the requirements of the applicable code, as well as familiarity with TSSA preferences.

WALECO has also been assisting EXP with providing budgetary quotes on the equipment being proposed.

In light of the above, EXP strongly recommends indicating WALECO as the preferred vendor in the bid documents for the supply of equipment related to the fuel system upgrade. This would greatly assist the tender bidding process, as it would mitigate the risk of other suppliers quoting on a system which would not rectify all the items indicated in AINSWORTH's report. In addition, for EXP to approve an alternate make during the bidding process, it would take a significant amount of time due to the extensive investigation needed before EXP would be able to confirm compliance. This might lead to delaying the bid close and bid award.

18-051

Lambton Area Water Supply System (LAWSS)

Standby Generator Replacement

**NEW DIESEL FUEL SYSTEM REPLACEMENT VENDOR RECOMMENDATION (R1)**

WALECO has provided a preliminary Bill of Materials along with a budgetary quotation for the supply scope of new equipment being proposed as a part of the fuel system upgrade, which is roughly in the order of \$ 93,000 + HST. Please note that this figure does not include installation and labour costs.

If you have any questions, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'Arka Mukherjee', with a horizontal line drawn underneath the name.

Arka Mukherjee, P.E., P.Eng.  
Manager, MEP Services





July 6, 2020

Clinton Harper  
Lambton Area Water Supply System  
1215 Fort St  
Sarnia, ON  
N7V 1M1

**FS Variance**  
**Service Request No.: 2848456**

**Re: Request for variance from Section 7, 24(1) and 24(2) of O. Reg. 213/01  
1215 Fort St, Sarnia**

Dear Clinton Harper,

This is in response to your variance application involving:

- A 45 000 L ULC double wall vertical main tank;
- Two 1110 L ULC indoor day tanks; and
- 4 diesel generators.

Please be advised that your request for the temporary use of the existing fuel oil system, until they are upgraded to a compliant fuel oil system, has been approved.

This approval expires on December 31, 2021.

The temporary approval is based on the reports provided by the inspecting Oil Burner Technician 1 (OBT1) and PM3 certificate holder.

This variance is allowed under the authority of subsection 36 (3) (c) of the Technical Standards and Safety Act, 2000 and subject to such conditions as may be specified herein, being that:

- The installation shall be inspected by a person holding the appropriate certificates initially and once every 90 days;
- A copy of the inspection report by the certificate holder shall remain on site with the equipment and a copy shall be forwarded to the Fuel Distributor. The inspection reports are to clearly identify the unacceptable conditions;
- The plan to upgrade the fuel oil systems shall be submitted to TSSA by October 1, 2020.
- The progress of upgrading the installation shall be reported to TSSA via [rsumabat@tssa.org](mailto:rsumabat@tssa.org) at the completion of major milestones;
- This variance approval only applies to conditions that pose an unacceptable condition with no immediate hazards as defined by the Ontario Regulation 213/01, section 22;
- If the unacceptable conditions with no immediate hazards identified develop into immediate hazards, this approval shall become null and void. TSSA and the Fuel Distributor shall be immediately notified of such conditions;

- This variance expires on December 31, 2021;
- Non-conformity with the conditions specified shall thereby cause the allowed variance to lapse;
- The applicant accepts full responsibility for all damages resulting from the use of the thing to which the regulation under the Technical Standards and Safety Act applies or to the health or safety of any person in consequence of allowance of the variance or of non-conformity with the conditions specified, to the complete exclusion of Technical Standards and Safety Authority;
- In the event of third-party claims against the Technical Standards and Safety Authority arising from allowance of the variance or non-conformity with the conditions specified, the applicant accepts - on demand - to indemnify the Technical Standards and Safety Authority and to hold it harmless from such claims and attendant costs;
- The variance process is subject to public access under the TSSA Access and Privacy Code (available upon request). The fact that a variance has been granted, and information about any public conditions, such as a requirement to post a sign, could be released on request. Proprietary and/or competitive information would not be subject to release;
- A copy of the variance letter shall always be kept readily available and permanently legible in the vicinity of the appliance;
- The applicant shall pay the fee associated with the review of the variance; and
- The system shall be inspected and periodically audited by TSSA. Please contact Raphael Sumabat at rsumabat@tssa.org to arrange for the inspection.

Please note that this variance only relates to the Technical Standards and Safety Act and Regulations made thereunder and does not exempt you from compliance with other applicable jurisdictional requirements. The installation may be subject to an inspection at any time to ensure compliance with the terms of the variance.

Should you have any questions or require further assistance, please contact Raphael Sumabat at 416-734-3357 or rsumabat@tssa.org.

Yours truly,



John R. Marshall  
Director, Fuels Safety Program