

AGENDA

Joint Board of Management Meeting



Thursday, June 25, 2020
12:00 pm

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 _____

Seconded By _____

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

3. Consent Items

Moved By _____

Seconded By _____

"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."

- 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 _____

Seconded By _____

"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".

- b. WTP Main Switchgear & Generator Replacement Project Status Update

Moved By _____

Seconded By _____

"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."

- c. 2021 Preliminary Budget Proposal

Moved By _____

Seconded By _____

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

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

Moved By _____

Seconded By _____

"That the LAWSS Joint Board of Management **RECEIVE** the 2020 Progress Report prepared by the the Upper Thames River Conservation Authority as information."

Moved By _____

Seconded By _____

"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".

5. Deferred Matters/Additional Business

6. Confidential

7. Adjournment

Moved By _____

Seconded By _____

"That the LAWSS Joint Board of Management **ADJOURN** this meeting to its next board meeting held on Thursday, July 30, 2020 at 12pm at the Tourism Sanria-Lambton Assembly Room, 1455 Venetian Blvd. Point Edward."



Minutes

Joint Board of Management Meeting

Thursday, May 28, 2020
12:00 pm

Members

Mayor Bev Hand, Village of Point Edward
Mayor Steve Arnold, St. Clair Township
Mayor Jackie Rombouts, Township of Warwick
Mayor Lonny Napper, Town of Plympton-Wyoming
Councillor Margaret Bird, City of Sarnia
Councillor Rick Goodhand, Municipality of Lambton Shores

LAWSS General Manager:

Clinton Harper

Technical Staff:

Andrew Maver, Township of Warwick
Brian Black, St. Clair Township
Adam Sobanski, Town of Plympton-Wyoming
David Jackson, City of Sarnia
Jay Verstraeten, Village of Point Edward
Mark Harris, OCWA Operational Manager
Mike Helps, County of Lambton

1. Call to Order

a. Disclosure of Pecuniary Interest

2. Adoption of Minutes

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

Moved by: Mayor Jackie Rombouts

Seconded by: Mayor Lonny Napper

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

Carried

3. Presentation of LAWSS 2019 Draft Audited Financial Statement

Eric Hicks, CPA. Manager BDO Canada LLP

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

Moved by: Mayor Steve Arnold

Seconded by: Mayor Jackie Rombouts

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

Carried

Moved by: Mayor Steve Arnold

Seconded by: Mayor Jackie Rombouts

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

Carried

4. Consent Items

Moved by: Mayor Steve Arnold

Seconded by: Councillor Rick Goodhand

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

Carried

a. Financial Statement- March 2020

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

b. Operational Statement - April 2020

The April 2020 Monthly Operations Reports are attached.

c. Information Reports

1. April 2020 Flow Summary Sheets

2. Information Report (May 28, 2020)

5. Items for Discussion

a. Webcasting and Video Archiving

Moved by: Mayor Steve Arnold

Seconded by: Mayor Jackie Rombouts

"That the LAWSS Joint Board of Management **ACCEPTS** the report titled "Webcasting and Video Archiving" dated May 28, 2020 as information and that meetings of the LAWSS Joint Board of Management are webcast to YouTube where they will remain publicly accessible for 24 hours."

Carried

b. WLPS Back Pressure Sustaining Valve Project Update

Moved by: Mayor Steve Arnold

Seconded by: Councillor Margaret Bird

"That the LAWSS Joint Board of Management **APPROVE** a budgetary increase of \$109,000 to the 2020 WLPS 36" Ross Valve Capital Project. The LAWSS General Manager is permitted proceed with award of the project if the competitive process yields a successful bidder that doesn't exceed the revised budget by 5%."

Carried

c. Condition Assessment- Port Lambton and Warford SP

Moved by: Mayor Jackie Rombouts

Seconded by: Mayor Steve Arnold

"That the LAWSS Joint Board of Management **HIRE** CIMA+ to complete a condition assessment of the Port Lambton and Watford Standpipe in the amount of \$26,730.00+taxes."

Carried

Moved by: Mayor Steve Arnold

Seconded by: Mayor Jackie Rombouts

"That the LAWSS Joint Board of Management **APPROVE** CIMA+ to complete a Finite Element Analysis on the Port Lambton and Watford SP in the amount of \$18,100 if an investigation of existing LAWSS facility accessment information archive does not generate the necessary information."

Carried

d. WTP Reservoir Leak Update #2

Moved by: Mayor Lonny Napper

Seconded by: Mayor Jackie Rombouts

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

e. Treatment Investigations @ LAWSS WTP Update

Moved by: Councillor Margaret Bird

Seconded by: Mayor Jackie Rombouts

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

Carried

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

Moved by: Mayor Steve Arnold

Seconded by: Mayor Jackie Rombouts

"That the LAWSS Joint Board of Management **ELECT** to participate in the Province's Industrial Conservation Initiative (ICI) as a Class A customer for the upcoming election period of July 1, 2020 to June 30, 2021 and that the LAWSS General Manager be permitted to use his discretion to make this election, on the Board' behalf, for the next 5 years."

Carried

6. **Deferred Matters/Additional Business**

7. **Confidential**

8. **Adjournment**

Moved by: Mayor Lonny Napper

Seconded by: Councillor Rick Goodhand

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

Carried

		April Actual	Month Budget	YTD - ACTUAL	YTD - Budget	Annual Budget	Variance	Percent of Budget Used
Municipality Revenue								
4050	Municipality Revenue	-810,316.25	-810,316.25	-3,241,264.72	-3,241,264.72	-9,823,795.00	0.00	33%
	Sarnia	-472,738.50	-472,738.50	-1,890,954.00	-1,890,954.00	-5,672,862.00	0.00	33%
	St. Clair Township	-241,312.17	-241,312.17	-965,248.67	-965,248.67	-2,895,746.00	0.00	33%
	Plympton-Wyoming	-40,353.75	-40,353.75	-161,415.00	-161,415.00	-484,245.00	0.00	33%
	Lambton Shores	-15,639.08	-15,639.08	-62,556.33	-62,556.33	-187,669.00	0.00	33%
	Warwick	-20,825.17	-20,825.17	-83,300.39	-83,300.39	-249,902.00	0.00	33%
	Point Edward	-19,447.58	-19,447.58	-77,790.33	-77,790.33	-233,371.00	0.00	33%
	Bluewater Power Distribution Corp.			0.00	0.00		0.00	
4120	Brooke-Alvinston Revenue		0.00	0.00	0.00	-100,000.00	0.00	0%
	Total Municipalities Revenue	-810,316.25	-810,316.25	-3,241,264.72	-3,241,264.72	-9,823,795.00	0.00	33%
Other Revenue								
4130	Emergency Water Taking		0.00	0.00	0.00	0.00	0.00	0%
4150	LAWSS Other Revenue		0.00	0.00	0.00	0.00	0.00	0%
	Canada Coast Guard		0.00	0.00	0.00	-7,000.00	0.00	0%
	County of Lambton		0.00	0.00	0.00	-7,000.00	0.00	0%
	Bluewater Power- Reimbursement Progra,		0.00	0.00	0.00	0.00	0.00	
4430	Misc. Revenue (HST Rebate)		0.00	0.00	0.00	0.00	0.00	#DIV/0!
4430	Misc. Revenue from OCWA		0.00	0.00	0.00	0.00	0.00	0%
4430	Misc. Revenue from St. Clair		0.00	0.00	0.00	0.00	0.00	0%
	Misc. Revenue from OMWA		0.00	0.00	0.00	0.00	0.00	0%
4430	Misc. Revenue from OPA		0.00	0.00	0.00		0.00	
	Total Other Revenue	0.00	0.00	0.00	0.00	-14,000.00	0.00	0%
Investment Interest								
4420	Interest Earned	-20,391.16	-22,000.00	-86,821.33	0.00	-58,000.00	-86,821.33	150%
Project Expenses		-830,707.41	-832,316.25	-3,328,086.05	-3,241,264.72	-9,895,795.00	-86,821.33	34%
5100	Project Expenses	605,986.36	0.00	775,766.97	1,083,199.29	12,430,313.20	152,060.74	6%
	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	33,425.47	0.00	120,000.00	-86,574.53	28%
	20-4 Indian Road WT Rehabilitation (Engineering Design)		0.00	0.00	0.00	30,000.00	-30,000.00	0%
	20-5 WTP PLC Conversion/Upgrade Construction		0.00	0.00	0.00	150,000.00	-150,000.00	0%
	20-6 Field Gate 4G Network Upgrade		0.00	0.00	0.00	75,000.00	-75,000.00	0%
	20-7 Engineering Studies	8,320.20	0.00	25,065.43	0.00	833,000.00	-807,934.57	3%
	R20-1 Financial Plan		0.00	2,003.15	0.00	0.00		
	R20-2 WTP Reservoir	12,859.27		12,859.27				
	Tasks carried over from 2018	584,806.89	0.00	702,413.65	529,013.05	6,348,156.60	152,060.74	11%
	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	584,806.89	0.00	695,537.16	458,333.33	5,500,000.00	237,203.83	13%
	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	Distribution Repairs		0.00	8,829.68	16,666.67	200,000.00	-7,836.99	4%
5175	Facility Maintenance	1,865.52	0.00	1,865.52	2,500.00	30,000.00	-634.48	6%

5125

	April Actual	Month Budget	YTD - ACTUAL	YTD - Budget	Annual Budget	Variance	Percent of Budget Used
Major Maintenance	0.00	0.00	16,164.11	26,000.00	312,000.00	-3,169.22	5%
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%
General & Administrative Expenses							
5200 OCWA Operating & Maintenance	362,769.93	362,769.93	1,451,079.72	362,769.92	4,353,239.00	1,088,309.80	33%
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	54,572.31	20,833.33	250,000.00	33,738.98	22%
5450 WSIB	0.00	0.00	245.70	125.00	1,500.00	120.70	16%
5500 Audit Fees		0.00	3,074.17	1,166.67	14,000.00	1,907.50	22%
5505 Consulting		0.00	0.00	208.33	2,500.00		
5510 Accounting & Legal	1,986.04	0.00	4,874.80	1,666.67	20,000.00	3,208.13	24%
5515 Advertising & Promotions		0.00	0.00	16.67	200.00	-16.67	0%
5520 Membership Fees		0.00	507.04	166.67	2,000.00	340.37	25%
5522 Education / Conference		0.00	0.00	333.33	4,000.00	-333.33	0%
5535 Courier & Postage		0.00	0.00	41.67	500.00	-41.67	0%
5540 Income Taxes		0.00	0.00	0.00	0.00	0.00	0%
5545 Property Taxes	36,582.04	0.00	73,870.41	15,000.00	180,000.00	58,870.41	41%
5550 Property Administration		0.00	161.31	1,250.00	15,000.00	-1,088.69	1%
5555 Insurance		0.00	0.00	1,750.00	21,000.00	-1,750.00	0%
5560 Interest & Bank Charges		0.00	10.85	8.33	100.00	2.52	11%
5565 Office Supplies		0.00	346.88	250.00	3,000.00	96.88	12%
5566 Computer Software		0.00	0.00	2,000.00	24,000.00	-2,000.00	0%
5570 Internet	85.43	0.00	256.29	125.00	1,500.00	131.29	17%
5571 GIS and Internet Services		0.00	0.00	183.33	2,200.00	-183.33	0%
5575 Travel (Includes Mileage)		0.00	97.26	125.00	1,500.00	-27.74	6%
5576 Vehicle Expenses		0.00	0.00	1,041.67	12,500.00	-1,041.67	0%
5580 Telephone	123.37	0.00	374.61	125.00	1,500.00	249.61	25%
5585 Mobile Phone	177.34	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		
Total Expenses	1,021,232.03	383,603.26	2,393,177.80	2,079,982.26	24,391,708.80	1,168,573.27	10%

Lambton Area Water Supply System
Cash Balance Sheet as at April 30, 2020

LAWSS Bank Account on April 1, 2020	<u>10,962,142.47</u>
LAWSS Accounts Receivable - Received	<u>1,448,060.82</u>
	<u>12,410,203.29</u>
LAWSS Accounts Payable - Paid	43,401.66
LAWSS Accounts Payable - Outstanding	<u>908,908.61</u>
	<u>952,310.27</u>
LAWSS Bank Account on April 30, 2020	<u>12,366,801.63</u>
Adjusted Bank Balance on April 30, 2020	<u>11,457,893.02</u>
Cash in Reserve	<u>1,994,873.22</u>

Capital Project	Budget Approved	Board Approved	Total	Consultant/Contractor	PO/Contract Fee	Spent	Unspent	Start Date	End Date	Status
20-1 5kV Motor Control Group A & B (Engineering)	\$ 90,000.00		\$ 90,000.00				\$90,000.00			
20-2 WTP Main Plant HVAC Repair (Engineerin Design)	\$ 111,000.00		\$ 111,000.00				\$111,000.00			
20-3 WLPS Reservoir Rehabilitation (Engineering Design)	\$ 120,000.00		\$ 120,000.00			\$33,425.47	\$86,574.53			In Progress
20-4 Indian Road WT Rehabilitation (Engineering Design)	\$ 30,000.00		\$ 30,000.00				\$30,000.00			
20-5 WTP PLC Conversion/Upgrade Construction	\$ 150,000.00		\$ 150,000.00				\$150,000.00			
20-6 Field Gate 4G Network Upgrade	\$ 75,000.00		\$ 75,000.00				\$75,000.00			
20-7 Engineering Studies	\$ 833,000.00		\$ 833,000.00			\$25,065.43	\$807,934.57			In Progress
R20-1 LAWSS Water Financial Plan				Watson & Associations Economists		\$2,003.15	\$0.00			In Progress
R20-2 WTP Reservoir						\$12,859.27				
Projects Carry forward										
17-05 Engineering Design for Emergency Generators	\$150,000.00	\$116,000.00	\$ 266,000.00	EXP Services Inc.,	PO0228	\$114,976.31	\$151,023.69			In Progress
18-01 Rebuild 32" Ross Valve at WLBS	\$ 70,000.00		\$ 70,000.00	OCWA		\$0.00	\$70,000.00			In Progress
18-02 New Generators Replacement (Including Air Louvers)	\$ 4,000,000.00	\$ 1,500,000.00	\$ 5,500,000.00	Toromont Cat, EXP		\$2,074,061.87	\$3,425,938.13			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
Major Maintenance										
MM20-01 WTO - Filter Core Sampling	\$ 15,000.00		\$ 15,000.00			\$0.00	\$15,000.00			In Progress
MM20-02 WTP - VFD Flocc Mixers	\$ 45,000.00		\$ 45,000.00			\$0.00	\$45,000.00			In Progress
MM20-03 WTP - Replace 7 Chlorine On-Line Analyzers	\$ 20,000.00		\$ 20,000.00			\$0.00	\$20,000.00			In Progress
MM20-04 WTP - Traveling Screen Assessment and Inspection	\$ 12,000.00		\$ 12,000.00			\$0.00	\$12,000.00			In Progress
MM20-05 WTP - Chemical Feed Pumps (3)	\$ 16,000.00		\$ 16,000.00			\$14,134.46	\$1,865.54			In Progress
MM20-06 WTP - Gearbox Refub at Flocc 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

May 31, 2020

Facility Description

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

Operational Description

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

Treatment Process

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

Inspections

May: None

Maintenance, Operations & Distribution Works Summary 2020

Maintenance

May:

Date	(P)reventative Capital Major Mtc (C)orrective	Description
May 1	P	Conducted monthly inspection of eyewash and emergency shower stations.
May 1	P	Completed semi-annual inspection of west raw water conduit ball valve.
May 1	P	Completed annual inspection of Raw Water butterfly valve 13 and 14.
May 1	P	Completed annual inspection of HL pump 8 discharge valve.
May 1	C	Replaced ceiling tile in admin area.
May 4	P	Completed semi-annual inspection of all low lift pumps.
May 4	P	Completed annual inspection of check valves 2 and 5 in the low lift pump room.
May 5	C	Repaired gate valve directly before grit pump.
May 5	P	Completed six month inspection on centrifugal pumps at East Lambton Pumping Station.
May 5	P	Completed monthly maintenance on chlorine analyzers at West Lambton Pumping Station.
May 5	P	Completed monthly maintenance on Station 1, 3 and 7 turbidity meters.
May 5	P	Conducted monthly inspection of vacuum priming system at East Lambton Pumping Station.

May 5	P	Completed monthly test of alarm dialer system at West Lambton Pumping Station.
May 6	C	Rotork in to look at Filter #6 filter to waste not hitting closed set point.
May 6	P	Cleaned out lamellas and removed anthracite from Actiflo #1.
May 6-8	P	Annual inspection on chlorine analyzers completed.
May 7	P	Cleaned out lamellas and removed anthracite from Actiflo #2.
May 7	C	Installed new sump pump in meter chamber 10 in Plympton-Wyoming.
May 8	P	Completed monthly inspection of water treatment plant compressors.
May 8	P	Tested alarm dialers at the water treatment plant.
May 8	P	Completed monthly check of elevator.
May 8	P	Completed semi-annual inspection of all high lift pumps.
May 11	P	Conducted semi-annual inspection of surface wash pump.
May 11	P	Completed monthly inspection of all filter effluent turbidity meters.
May 11-12	P	Completed monthly inspection of pH probes at the water treatment plant.
May 11-12	P	Completed monthly inspection of travelling screens.
May 12	P	Cleaned out sludge thickener in the Residual Management System.
May 12	P	Completed monthly inspection of Residual Management turbidity sensors.
May 12	P	Completed monthly inspection of streaming current meters.
May 12	P	Completed monthly inspection of lab turbidity meter.
May 12	P	Completed monthly inspection of fluoride analyzer.
May 13	P	Tested polymer system at the water treatment plant.
May 13	P	Tested alarm dialers at East Lambton Pumping Station.
May 13	C	Repaired broken latch on gate at East Lambton Pumping Station.
May 13	Capital	Installed power at Wyoming Pit in preparation for capital radio project.
May 13	P	Completed monthly inspection of flocculators.
May 13	P	Tested generators at East and West Lambton Pumping Station.
May 14 and 19	Capital	Ainsworth in to do TSSA inspection on the generator system at the water treatment plant as part of the generator capital project.
May 19	P	Tested generators at the water treatment plant.
May 19	P	Completed monthly inspection of chlorine analyzer at East Lambton Pumping Station.
May 20	C	Repaired exhaust system on generator 2 at the water treatment plant. Work was passed during TSSA inspection.
May 20	Capital	Radio project meeting with LAWSS GM, WSP and Experteers.

May 20	P	Tested generator at East Lambton Pumping Station.
May 21	P	Tested generator at West Lambton Pumping Station.
May 21	P	Reset power at Wyoming Pit.
May 22	Capital	Meeting with LAWSS GM and WSP in regards to East Lambton Pumping Station radio upgrade and West Lambton Pumping Station valve replacement.
May 25	C	Replaced GFI and cleaned limit switch at Wyoming Pit.
May 25	C	Cleaned strainer on inlet valve at East Lambton Pumping Station.
May 26	P	Completed monthly maintenance on pocket chlorine testers.
May 27	Capital	Tested running East Lambton Pumping Station in hand in regards to capital radio project upgrade.
May 27	Major Mtc	Completed install of hydrant at 6622 London Line.
May 27	C	Adjusted chlorine inlet lines at East Lambton Pumping Station in order to help prevent air locks.
May 28	Capital	Standard operating procedure created for the operation of East Lambton Pumping Station in hand in response to radio project upgrade.
May 28	C	Ainsworth in to repair main hot water tank at the water treatment plant.
May 28	C	Repaired Filter #10 air relief valve.
May 29	C	Repaired leak on Filter #10 surface wash water feed line
May 29	Capital	Meeting in regards to capital radio project.
May 29	Capital	Watford and Port Lambton Towers being inspected by CIMA.

Operations and Compliance

May:

May 1	Filter #9 failed to return to service automatically. Filter was manually returned to service.
May 2	Pre chlorine pump faulted with P+ alarm. Pump and panel was reset.
May 2	South clearwell chlorine pump faulted with P+ alarm. Pumps and panel was reset.
May 3	Power outage at West Lambton Pumping Station. Generators started with no issues.
May 4	Quarterly THM, HAA and nitrate/nitrite samples taken. Annual schedule 23-24 taken. 60 month sodium sample taken.
May 5	Pre chlorine pump faulted with P+ alarm. Pump and panel was reset.
May 6	Low lift Pump #3 contactor failed twice before starting.
May 7	Pre chlorine pumps 2 and 3 faulted with P+ alarm. Pumps and panel were reset.
May 9	South clearwell chlorine pump #2 faulted with P+ alarm. Pump and panel was reset.
May 10	Pre chlorine pump faulted with P+ alarm. Pump and panel was reset.
May 10	South clearwell chlorine pump faulted with P+ alarm. Pump and panel was reset.
May 11	Completed and sent out THM and HAA reports.

May 13	Tested East Lambton Pumping Station door alarm.
May 13	Operated Pumps 1 and 5 at West Lambton Pumping Station.
May 13	Checked WSIB certificates of contractors used at LAWSS.
May 13	Installed PAC bag but not running system.
May 14	OCWA's QEMS policy has been reviewed and no changes were needed.
May 14	Pre chlorine pumps 1 and 2 faulted with P+ alarm. Pumps and panel were reset.
May 14	South clearwell chlorine pump 1 and 2 faulted with P+ alarm. Pumps and panel were reset.
May 19	Diesel generator #2 out of service due to TSSA inspection finding of a leaking exhaust.
May 19	Tested Indian Rd and Port Lambton intruder alarms.
May 20	Low lift Pump #3 contactor failed before starting.
May 20	Generator #2 back in service after repairs to exhaust and TSSA inspection.
May 20	Pre chlorine pumps 1 and 2 faulted with P+ alarm. Pumps and panel were reset.
May 25	Modified Critical Shortage of Staff Contingency to reflect issues related to COVID 19.
May 25	Updated Lambton contact list.
May 26	Completed review of Critical Shortage of Staff Contingency test in regards to COVID 19.
May 27	Watford pumping system placed into recirculation mode in response to the hydrant installation on London Line.
May 27	Pre chlorine pumps 2 and 3 faulted with P+ alarm. Pumps and panel were reset
May 28	South clearwell chlorine pump 2 faulted with P+ alarm. Pump and panel were reset.

Distribution

May:

May 1	Site visit on Front St in regards to Bluewater Power installing power poles.
May 5	Onsite for prep meeting in regards to hydrant work on Lakeshore and Townsend.
May 5	Onsite for third party work for Canatara Park borehole testing near LAWSS watermain.
May 7	Valve operations and chamber checks on Zion Line in Watford.
May 8	Onsite for third party work for Canatara Park borehole testing near LAWSS watermain.
May 11	Onsite for third party work with TW Johnstone for drilling near LAWSS watermain on Confederation Line in Wyoming.
May 12	Emergency hydrant repair for hydrant 172 on Townsend and Lakeshore.
May 13	Onsite for third party work with TW Johnstone for drilling near LAWSS watermain on Confederation Line in Wyoming.
May 13	Valve operations and chamber checks in St Clair Township and on Confederation Line in Plympton-Wyoming.

May 20	Valve operations and chamber check on Confederation Line and London Line.
May 21	Opened emergency interconnect at the Nova Corunna site. Interconnect was opened for approximately 4 hours.
May 22	Onsite for culvert work done near LAWSS watermain in St Clair Township.
May 25	Onsite for culvert work done near LAWSS watermain in St Clair Township.
May 26	Hydrant flushing in Point Edward and City of Sarnia.
May 29	Meter read.

Call Outs 2020

May: Call out May 18th for faulting of both sodium hypochlorite pumps at East Lambton Pumping Station. Pumps and panel were 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							

RMS Sludge Haulage

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

Amount of sludge produced per month in m³

YEAR	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
2019	236	158	237	236	216	158	313	237	160	160	159	163
2020	241	228	231	240	230							

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: 2020-05-01

End Date: 2020-05-31

Hub: Lambton

Cluster	ORG ID	Facility ID	Health and Safety					Closure Rate		
			Initiated	Approved	Completed	Total Labor Hrs	Total Cost \$	Target	Actual	Variance
LAWSS (133000)	Lambton Area Water Treatment	5544, East Lambton Distribution (5544-WDEL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, East Lambton PS (5544-WPEL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Lambton Area RMS (5544-WWLA)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Lambton Area WTP (5544-WTLA)	2	2	2	5.00	185.55	85.00%	100.00%	-15.00%
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, West Lambton Booster Stn (5544-WPWL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, West ST.Clair Distribution (5544-WDWS)	1	1	1	1.00	37.79	85.00%	100.00%	-15.00%
		Lambton Area Water Treatment Plant (5544)	1	1	1	1.50	87.07	85.00%	100.00%	-15.00%
		Total	4	4	4	7.50	310.41	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: 2020-05-31

Hub: Lambton

Cluster	ORG ID	Facility ID	Health and Safety					Closure Rate		
			Initiated	Approved	Completed	Total Labor Hrs	Total Cost \$	Target	Actual	Variance
LAWSS (133000)	Lambton Area Water Treatment	5544, East Lambton Distribution (5544-WDEL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, East Lambton PS (5544-WPEL)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Lambton Area RMS (5544-WWLA)	0	0	0	0.00	0.00	85.00%	100.00%	-15.00%
		5544, Lambton Area WTP (5544-WTLA)	19	19	18	32.00	1307.53	85.00%	94.74%	-9.74%
		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)	4	4	4	4.00	151.16	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%
		Total			26	26	25	40.50	1677.45	85.00%

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

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Work Order Summary by Facility

Start Date: 2020-05-01
End Date: 2020-05-31
Hub: Lambton

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

			Corrective Maintenance					Emergency Maintenance					Call Back				
			Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$
LAWSS (133000)	Lambton Area Water Treatment Plant (5544)	5544, East Lambton Distribution (5544-WDEL)	1	1	0	11.5	481.2	1	1	1	13.25	545.45	0	0	0	0	0
		5544, East Lambton PS (5544-WPEL)	3	3	3	17.5	740.9	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)	1	1	1	12	524.88	0	0	0	0	0	0	0	0	0	0
		5544, Lambton Area WTP (5544-WTLA)	6	6	6	23.5	4383.16	0	0	0	0	0	0	0	0	0	0
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, West Lambton Booster Stn (5544-WPWL)	1	1	1	4	148.44	0	0	0	0	0	0	0	0	0	0
		5544, West ST.Clair Distribution (5544-WDWS)	1	1	0	22.5	1073.26	0	0	0	0	0	0	0	0	0	0
		Lambton Area Water Treatment Plant (5544)	2	2	2	6	1771.58	0	0	0	0	0	0	0	0	0	0
Grand Total			15	15	13	97	9123.42	1	1	1	13.25	545.45	1	1	1	8.00	527.20

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Work Order Summary by Facility

Start Date: 2020-05-01
End Date: 2020-05-31
Hub: Lambton

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

			Preventive Maintenance					Operational					Capital/Project Work					Closure Rate		
			Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Target	Actual	Variance
LAWSS (133000)	Lambton Area Water Treatment Plant (5544)	5544, East Lambton Distribution (5544-WDEL)	0	0	0	0	0	4	4	4	18.25	696.48	1	1	0	17.25	707.39	85%	83.33%	1.666%
		5544, East Lambton PS (5544-WPEL)	9	9	8	9	366.64	3	3	3	28.5	1303.36	0	0	0	0	0	85%	93.75%	-8.75%
		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	4	26	1232.35	2	2	2	7	327.95	0	0	0	0	0	85%	87.5%	-2.50%
		5544, Lambton Area WTP (5544-WTLA)	42	42	34	99.5	3922.07	10	10	10	1514.5	41166.72	0	0	0	0	0	85%	86.20%	-1.20%
		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)	6	6	3	4	159.9	2	2	2	5.5	219.55	0	0	0	0	0	85%	66.66%	18.33%
		5544, West ST.Clair Distribution (5544-WDWS)	0	0	0	0	0	3	3	3	9.75	440.83	0	0	0	0	0	85%	75%	9.999%
		Lambton Area Water Treatment Plant (5544)	1	1	1	1.5	87.07	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
Grand Total			63	63	50	140	5768.03	24	24	24	1583.5	44154.89	1	1	0	17.25	707.39	85%	100%	-15.0%

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Work Order Summary by Facility

Start Date: 2020-01-01
End Date: 2020-05-31
Hub: Lambton

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

			Corrective Maintenance					Emergency Maintenance					Call Back				
			Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$
LAWSS (133000)	Lambton Area Water Treatment Plant (5544)	133000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, East Lambton Distribution (5544-WDEL)	3	3	2	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)	18	18	13	178.75	12148.94	0	0	0	0	0	1	1	1	4	197.7
		5544, Port Lambton Standpipe (5544-WDPL)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, Watford Standpipe (5544-WDWF)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5544, West Lambton Booster Strn (5544-WPWL)	3	3	3	14	578.13	0	0	0	0	0	0	0	0	0	0
		5544, West ST.Clair Distribution (5544-WDWS)	2	2	0	22.5	1073.26	0	0	0	0	0	1	1	1	6	211.62
		Grand Total			32	32	24	286	16825.43	1	1	1	13.25	545.45	5	5	5

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Work Order Summary by Facility

Start Date: 2020-01-01
End Date: 2020-05-31
Hub: Lambton

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

			Preventive Maintenance					Operational					Capital/Project Work					Closure Rate		
			Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Init	Approved	Completed	Total Labor Hrs	Total Cost \$	Target	Actual	Variance
LAWSS (133000)	Lambton Area Water Treatment Plant (5544)	133000	0	0	0	0	0	0	0	0	0	1	1	0	115	6718.38	85%	100%	-15.0%	
		5544, East Lambton Distribution (5544-WDEL)	6	6	0	0	0	20	20	20	56	2114.83	1	1	0	17.25	707.39	85%	78.12%	6.874%
		5544, East Lambton PS (5544-WPEL)	31	31	29	42.25	2035.34	11	11	11	58.75	2436.64	0	0	0	0	0	85%	95.74%	-10.7%
		5544, Forrest Standpipe (5544-WDFS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Indian Road Tower (5544-WDIR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85%	100%	-15.0%
		5544, Lambton Area RMS (5544-WWLA)	13	13	12	42	1987.5	10	10	10	26.5	1061.95	0	0	0	0	0	85%	96%	-10.9%
		5544, Lambton Area WTP (5544-WTLA)	183	183	165	522.75	22372.58	66	66	63	7872.25	226295.1	4	4	2	23	17209.88	85%	90.29%	-5.29%
		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)	45	45	33	48.5	2167.74	10	10	10	78.75	3811.55	0	0	0	0	0	85%	79.31%	5.689%
		5544, West ST.Clair Distribution (5544-WDWS)	3	3	0	0	0	15	15	14	37.75	1579.58	1	1	0	10.5	651.94	85%	71.42%	13.57%
Grand Total			281	281	239	655.5	28563.16	132	132	128	8130	237299.6	7	7	2	165.75	25287.59	85%	100%	-15.0%

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

Report extracted 06/08/2020 08:34

From: 01/01/2020 to 31/05/2020

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	Total	Avg	Max	Min
Coagulation/Floculation / Coagulant Dosage-Calculated - mg/L									
Max IH	26.437	30.355	29.818	28.267	27.141			30.355	
Mean IH	20.802	24.673	25.189	23.287	21.491		23.066		
Min IH	15.602	20.415	20.129	16.333	16.002				15.602
Coagulation/Floculation / Coagulant Used - kg									
Max IH	1241.6	1459.2	1638.4	1190.4	1459.2			1638.4	
Mean IH	964.129	1110.069	1104.103	979.2	1063.226		1043.705		
Min IH	691.2	870.4	793.6	780.8	832				691.2
Total IH	29888	32192	34227.2	29376	32960	158643.2			
Coagulation/Floculation / Coagulant Volume Used - m³									
Max IH	0.97	1.14	1.28	0.93	1.14			1.28	
Mean IH	0.753	0.867	0.863	0.765	0.831		0.815		
Min IH	0.54	0.68	0.62	0.61	0.65				0.54
Total IH	23350	25150	26740	22950	25750	123940			
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 / Cl Residual: Inlet Free - mg/L									
Max OL	1.49	1.49	1.83	1.63	1.58			1.83	
Mean OL	1.359	1.372	1.434	1.424	1.419		1.401		
Min OL	0	0	0	0	0				0
Filter Backwash / Backwash Volume - m³									
Max IH	2988	4208	3666	2702	2716			4208	
Mean IH	2017.581	2051.793	2001.742	1775.2	1903.613		1949.796		
Min IH	1208	1200	0	602	1204				0
HFS / Fluoride Dosage - mg/L									
Max IH	0.63	0.633	0.647	0.645	0.685			0.685	
Mean IH	0.55	0.556	0.555	0.554	0.551		0.553		
Min IH	0.477	0.516	0.433	0.491	0.41				0.41
HFS / Fluoride Used - l									
Max IH	88.823	94.553	91.689	88.823	120.341			120.341	
Mean IH	83.185	82.796	81.437	77.934	90.587		83.228		
Min IH	68.766	77.361	63.295	68.762	71.631				63.295
Total IH	2578.73	2401.087	2524.546	2338.016	2808.208	12650.59			
HFS / HFS (kg) - kg									
Max IH	108.364	115.355	111.86	108.364	146.816			146.816	
Mean IH	101.486	101.011	99.353	95.079	110.517		101.538		
Min IH	83.895	94.38	77.22	83.89	87.39				77.22
Total IH	3146.051	2929.326	3079.946	2852.38	3426.014	15433.72			
HFS / Treated Water Fluoride Residual - mg/L									
Max OL	2	0.81	0.92	0.8	0.81			2	
Mean OL	0.544	0.63	0.692	0.666	0.673		0.641		
Min OL	0	0.23	0.51	0.55	0.56				0
Post Disinfection / Chlorine Dosage - mg/L									
Max IH	2.078	1.897	2.157	2.232	2.063			2.232	
Mean IH	1.449	1.561	1.676	1.599	1.618		1.581		
Min IH	0.822	1.03	1.288	0.933	1.134				0.822
Post Disinfection / Hypochlorite Dosage - mg/L									
Max IH	17.316	15.809	17.977	18.596	17.191			18.596	
Mean IH	12.072	13.011	13.971	13.325	13.483		13.174		
Min IH	6.854	8.586	10.733	7.779	9.447				6.854
Post Disinfection / Hypochlorite Used - kg									
Max IH	777.85	680.325	1083.35	707.35	1025.775			1083.35	
Mean IH	559.262	585.231	615.927	560.867	672.782		599.242		

Min IH	254.975	358.375	440.625	420.65	425.35				254.975
Total IH	17337.13	16971.7	19093.75	16826	20856.25	91084.83			
Post Disinfection / Hypochlorite Volume-Total - m³									
Max IH	0.662	0.579	0.922	0.602	0.873			0.922	
Mean IH	0.476	0.498	0.524	0.477	0.573		0.51		
Min IH	0.217	0.305	0.375	0.358	0.362				0.217
Total IH	14755	14444	16250	14320	17750	77519			
Post Disinfection / Station 7 Cl Residual: Free - mg/L									
Max OL	5	1.75	3.1	1.84	1.85			5	
Mean OL	1.608	1.636	1.816	1.664	1.662		1.677		
Min OL	0	1.45	1.45	0	1.4				0
Raw Water / Background - cfu/100mL									
Max Lab	10	5	0	0	11			11	
Mean Lab	2.5	1.25	0	0	2.75		1.238		
Min Lab	0	0	0	0	0				0
Raw Water / Conductivity - µS/cm									
Max IH	223.4	235.2	231.1	229.8	244.9			244.9	
Mean IH	220.597	226.503	222.677	222.918	227.515		224.017		
Min IH	217.1	217.6	217.8	218.65	176.9				176.9
Raw 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
Raw Water / Raw Flow Daily - m³/d									
Max IH	51462	49347	68210	54076	68792			68792	
Mean IH	46223.13	45011.1	43968.16	42331.93	49718.13		45476.79		
Min IH	37203	38233	26615	30479	41407				26615
Raw Water / Raw Flow Rate - l/s									
Max IH	595.62	571.15	789.47	600.16	796.2			796.2	
Mean IH	534.99	523.03	508.89	482.67	575.45		525.31		
Min IH	430.59	442.51	308.04	352.77	479.24				308.04
Raw Water / Raw Water Turbidity - NTU									
Max OL	14	11.4	23	6.6	3.4			23	
Mean OL	2.445	3.495	3.194	1.747	1.714		2.519		
Min OL	0.26	0.51	0.587	0.41	0.65				0.26
Raw Water / Raw Water pH - ---									
Max IH	8.27	8.16	8.13	8.16	8.29			8.29	
Mean IH	8.114	8.051	8.051	8.065	8.153		8.087		
Min IH	8.02	7.98	7.96	7.9	8.03				7.9
Raw Water / Temperature - °C									
Max IH	10	8	12	11.7	14			14	
Mean IH	7.466	6.083	9.203	9.432	11.392		8.745		
Min IH	5.5	3	5.9	6.87	8.025				3
Raw Water / Total Coliform: TC - 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 / Background - 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 / 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	5152549			
Treated Water / Flow: Total of All Sources - m³/d									
Max IH	48147	47888	47433	45327	65796			65796	
Mean IH	44815.48	44078.86	43484.03	41675.97	48893.58		44615.47		
Min IH	37737	38449	35292	38147	38491				35292
Total IH	1389280	1278287	1348005	1250279	1515701	6781552			
Treated Water / HPC - cfu/mL									
Max Lab	< 10	< 40	< 10	< 10	< 10			< 40	
Mean Lab	< 10	< 17.5	< 10	< 10	< 10		< 11.429		
Min Lab	< 10	< 10	< 10	< 10	< 10				< 10
Treated Water / Total Coliform: TC - 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 / Turbidity - NTU									
Max OL	0.094	0.11	0.741	0.1	0.089			0.741	

Mean OL	0.069	0.069	0.082	0.072	0.069		0.072		
Min OL	0.052	0.052	0.048	0.05	0.05				0.048
West Lambton Booster Station / Cl Residual: Outlet Free - mg/L									
Max OL	4.98	1.88	2.22	2.26	1.84			4.98	
Mean OL	1.666	1.694	1.735	1.63	1.626		1.67		
Min OL	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			1.49	
Mean IH	1.057	1.137	1.143	1.125	1.091		1.11		
Min IH	0.972	0.971	1.039	0.83	0.829				0.829
Zebra Mussel Control / Cl Residual: Free - mg/L									
Max IH	0.66	0.67	0.71	0.71	0.68			0.71	
Mean IH	0.597	0.599	0.634	0.61	0.627		0.614		
Min IH	0.46	0.44	0.51	0.42	0.43				0.42
Zebra Mussel Control / Cl Residual: Total - mg/L									
Max IH	0.84	0.82	0.86	0.83	0.84			0.86	
Mean IH	0.759	0.754	0.785	0.746	0.756		0.76		
Min IH	0.61	0.6	0.67	0.53	0.52				0.52
Zebra Mussel Control / Hypochlorite Dosage - mg/L									
Max IH	10.423	10.787	10.696	12.413	10.77			12.413	
Mean IH	8.812	9.472	9.521	9.375	9.095		9.252		
Min IH	8.102	8.095	8.656	6.916	6.906				6.906
Zebra Mussel Control / Hypochlorite Used - kg									
Max IH	470	492.325	667.4	504.075	635.675			667.4	
Mean IH	407.081	425.512	418.262	393.938	451.882		419.421		
Min IH	339.575	358.375	278.475	312.55	323.125				278.475
Total IH	12619.5	12339.85	12966.13	11818.15	14008.35	63751.98			
Zebra Mussel Control / Hypochlorite Volume-Total-1 - m³									
Max IH	0.4	0.419	0.568	0.429	0.541			0.568	
Mean IH	0.346	0.362	0.356	0.335	0.385		0.357		
Min IH	0.289	0.305	0.237	0.266	0.275				0.237
Total IH	10740	10502	11035	10058	11922	54257			
Filter Backwash / Backwash Volume - m³									
Total IH	62545	59502	62054	53256	59012	296369			

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

From: Clinton Harper
General Manager

Subject: Information Reports (June 25, 2020)

Recommendation

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

Items:

COVID-19 Update

No major changes to report.

On March 17, 2020, the Province of Ontario declared an emergency under the Civil Protection Act due to the global pandemic, COVID-19. As a result of the provincial emergency declaration the following initiatives were implemented at LAWSS.

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

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The LAWSS GM continues to be in continual communication with the OCWA Operational Manager. Communication involves all aspects of Operations, including any changes due to the ongoing situation.

In addition to the steps/initiatives listed above, the City of Sarnia assisted LAWSS by placing traffic control at the entrances to both LAWSS owned parking lots at the onset of the emergency. These barricades have since been removed and the LAWSS kiosk washroom has been reopened at an increased cleaning interval.

LAWSS and OCWA have proceeded with certain Major Maintenance and some Capital Projects under a 2-phase assessment.

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

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

Phase 2 – Control Staging and Implementation.

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

SCADA Master Plan

Tendering in progress. Site meetings held at the LAWSS WTP on Monday June 15, 2020 and Tuesday June 16, 2020. The work includes development of a SCADA Master Plan that includes the following four components:

1. Evaluate the existing SCADA system to determine any deficiencies.
2. Identify LAWSS operational requirements and information/control needs.
3. Evaluate communication path performance.
4. Develop a Master Plan to upgrade the existing SCADA/PLC components to maximize reliability, responsiveness, cost effectiveness, security, and scalability.

Engineering- Main Plant HVAC

Tendering in progress. Site meetings held at the LAWSS WTP on Tuesday June 16, 2020 and Tuesday June 16, 2020. Goals of this project include:

- Replace/right size HVAC Equipment that has surpassed its life expectancy.
- Reinstate dehumidification. The dehumidification air handler which services the majority of the plant area had been modified in a recent project, including removal of the refrigeration coil. Humidity sources are still introduced into the WTP due to required outdoor air ventilation.
- Correct the remaining HVAC once-through water utilization that is currently being used for cooling and dehumidification.

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- Address potential risk of uninsulated components to condensation.
- Update and combine the various building automation systems.

WLPS Special Valve Project Update

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

OCWA's work is ongoing. A project scope has been established and OCWA is proceeding with tendering of the project.

Condition Assessment Review of- Port Lambton and Watford SP

A provision for a finite element analysis (FEA), to determine the facilities ability to bear telecommunication infrastructure, was included in a staff recommendation at the May 28, 2020 meeting of the LAWSS Joint Board of Management. The recommendation was part of an overall proposal to complete a generalized condition assessment of the structures. While the condition assessment was approved to proceed, staff was directed to review previous assessments to determine if the FEA was necessary due to previous studies completed prior to authorizing the FEA portion of the project.

After a thorough review of previous projects and assessments completed on the tower facilities, insufficient information was available to determine if the existing mounting infrastructure is robust enough to support additional telecommunication infrastructure. CIMA+ was asked to proceed with the FEA provision and a PO was issued for the additional work as outlined in the May 28, 2020 staff report.

This report was prepared by Clinton Harper, LAWSS General Manager

Attachment(s):

Report No.:	2020-06-02
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Meeting Date:	June 25, 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 for Diesel Generators at WTP

Recommendation

That the LAWSS Joint Board of Management receive as information and forward the matter to the 2021 Budget Deliberation.

Background:

In Ontario the Technical Standards & Safety Authority (TSSA) regulates the transportation, storage, handling and use of fuels. In 2012, LAWSS awarded a \$450,000 contract for an upgrade of the fuel delivery and storage system for the diesel engines currently utilized for backup power at the LAWSS WTP. This project was required to be built in accordance with the 2006 standard requirements for fuel delivery and storage. This was not achieved.

In July 2018, EXP Services Inc. (EXP) was awarded RFP 18-131 "Engineering Design for Replacement of Emergency Generators at LAWSS". The project scope included Development and Design, Compliance Documentation and Tendering, Project Administration and Project Close out Components. With respect to the fuel system, the scope of project RFP 18-131 was limited to tying into the existing upgraded system completed in 2012. The project was amended, at staff's recommendation, to include the WTP's main 5kV switchgear (SWGR) with the benefit "peak-shaving" provision. This project has progressed and the Generator and SWGR manufacturers have been selected and production has started. Also, a pre-qualification tender had been executed; yielding three interested contractors capable and qualified of completing the project.

At the beginning for 2020, with all of the key items in place, an effort was finally being made by EXP to pull together the remaining items into a generalized construction contract. As part of this effort a TSSA Inspector was invited to the WTP to provide feedback on the proposed project. While it was expected that there would be some effort to tie into the existing fuel system, due to the systems age it was believed that this effort would be covered within a reasonable amount of contingency afforded in the

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contract. The TSSA inspection revealed that major deficiencies existed in the fuel system.

At this time, LAWSS staff have applied for a temporary variance to allow LAWSS to maintain system operation until after the generator replacement project could be completed.

Comments:

In response to the TSSA inspection, a complete fuel system audit was completed by a certified technician to determine the extent of the system deficiencies. The finalized audit was provided to LAWSS staff on May 28, 2020. The audit revealed substantial deficiencies in the existing fuel storage and delivery system that will need to be corrected separately from the current generator project; in a future capital project.

LAWSS staff are currently working with TSSA to establish a temporary variance that can be built into the current generator project and will allow for connection of the new generators into the existing fuel system. It should be noted that if the fuel system upgrade project had been completed up to the 2006 standard in 2012 then the current work would not have triggered a TSSA requirement. It should also be noted that without the TSSA inspection the fuel system's deficiencies would not have been realized until commissioning of the new standby generator system. While the situation is not ideal, by catching the issue at this point LAWSS is provided with an opportunity to achieve a competitive bid in advance of a TSSA compliance order for this project.

Consultation:

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

Financial Implications:

The deficiencies identified in the fuel system audit are extensive and will take substantial effort and funding to rectify. Unfortunately, due to the current project being the trigger point, the existing fuel system will need to be brought up to the now 2015 standard. The financial impact is currently being quantified but it is expected that engineering and construction could range between \$750,000-\$1,000,000. The project has been included in the 2021 Preliminary Budget Proposal for the Board's consideration.

This report was prepared by Clinton Harper, LAWSS General Manger

Attachment(s):

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Report Page: Page 1 of 3
Meeting Date: June 25, 2020
File No.:



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

From: Clinton Harper
General Manager

Subject: WTP Main Switchgear & Generator Replacement Project

Recommendation

It is recommended that the LAWSS Joint Board;

1. receive this staff report as information, and
2. allow staff to proceed with tendering for General Contractor for the implementation of future LAWSS RFQ 20-131 Replacement of 5kV Switchgear and Emergency Generators at LAWSS.

Background:

RFP 18-131 "Engineering Design for Replacement of Emergency Generators at LAWSS" was awarded to EXP Services Inc. on July 17, 2018. EXP Services Inc's proposal was the best among seven proposals received for this project. Proposals were evaluated by a team consisting of the City of Sarnia Procurement Department, OCWA Operational Staff, and the LAWSS General Manager.

At the recommendation of staff, in November 2018, the Board authorized EXP to explore and include in the final build a provision for the new generator system to be used for non-standby applications.

At the end of 2018, the Board requested that staff explore efficiencies related to replacement of the WTP 5kV Switchgear as part of the Generator Project. In a report dated January 31, 2019, staff described the efficiencies related to combining the projects. Based on the information and the recommendations provided, the Board increased the overall project construction budget from \$4million to \$5.5million and approved EXP Services Inc. to provide the Engineering Services needed to combine the 5kV Switchgear with the Generator Project.

In June 2019, based on a recommendation from staff, Toromont was selected to provide the generator package for the Generator Replacement portion of the project. A PO was issued and work began to assemble the equipment. As of October 2019, the three 1.5MW units were delivered to the Toromont testing facility in Burlington and were

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tested as per contract requirements. OCWA and EXP Services Inc. provided staff to attend the testing.

In January 2020, based on a recommendation from staff, ABB was selected to provide the main 5kV Switchgear portion of the project. A PO was issued and work began to assemble the equipment. This equipment is currently still being assembled.

Due to the criticality of the systems that will be affected during the Generator and 5kV Switchgear Replacement Project, an effort was made to prequalify the contractors authorized to bid on the General Contracting (GC) component. The GC approved to bid on the project were pre-qualified based on the following criteria:

- Demonstration of a specified level of overall Company qualifications and experience.
- Availability of specialized staff required for the project.
- Past Company safety performance.
- Commitment to communication.

The GC prequalification tendering process yielded three contractors with the sufficient experience and the necessary qualifications to successfully complete the LAWSS Generator and Switchgear Replacement Project.

Comments:

Work on the tender package for the GC component is nearing completion. The remaining outstanding items related to tying into the existing fuel system are in the process of being resolved, and once resolved, LAWSS can move forward with tendering this project. It is expected that a special meeting will be needed in mid-August to award the project.

A draft 95% RFQ will be provided to LAWSS staff within the next 2-weeks. This draft will undergo a staff review. Once this review is complete, LAWSS will proceed into the tendering stage of the project.

Consultation:

This report was completed in consultation with EXP Services Inc., OCWA Operational Staff, and the City of Sarnia's Purchasing Department.

Financial Implications:

LAWSS Board established a \$5,866,000 budget for the Main Switchgear and Generator Replacement project at the water treatment plant. Of this initial budget, \$2,044,563

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remains available to cover the remaining contract costs. At this time the remaining amount is expected to be sufficient to complete and fully commission the project.

This report was prepared by Clinton Harper, LAWSS General Manger

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Meeting Date: June 25, 2020
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To: Chair and Members
Lambton Area Water Supply System Joint Board of Management

From: Clinton Harper
General Manager

Subject: 2021 Preliminary Operating and Capital Budget

Recommendation

It is recommended that the Board receive the 2021 Preliminary Operating and Capital Budget as information.

Executive Summary

Over the next two years, there are approximately \$17 million dollars in work aimed at maintaining the systems current level of service and to provide service enhancement. Based on a cash flow analysis for the next five years, and to avoid a cash shortfall in 2022, a 4.7% increase to the overall LAWSS Budget is recommended in 2021. How this increase translates to each of the LAWSS Municipal Members is outlined in Table 1.

COS= City of Sarnia VPE= Village of Point Edward		SCT= St. Clair Township TW= Township of Warwick		TPW= Town of Plympton-Wyoming LS = Lambton Shores			
Table 1	COS	SCT	TPW	VPE	TW	LS	LAWSS
2021 % Budget allocations (2019 flows)	59.34	29.18	5.07	2.32	2.24	1.85	100
Inc/Dec	+1.00%	-0.60%	+0.09%	-0.08%	-0.33%	-0.08%	NA
2020 Approved Budget (x1000)	\$5,673	\$2,896	\$484	\$233	\$250	\$188	\$9,724
2021 Preliminary Budget (x1000)	\$6,040	\$2,970	\$516	\$236	\$228	\$188	\$10,179
% change	+6.48%	+2.58%	+6.58%	+1.20%	-8.76%	+0.35%	+4.69%
Difference (x1000)	\$367	\$74	\$32	\$3	\$-22	\$0	\$455

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Preliminary 2021 Operating Budget:

Water Treatment Operations Contract

In 2021, the two largest costs for the water supply system are expected to remain:

1. OCWA Service Fee @ \$2,237,119 (Most applicable CPI applied)
2. Electricity @ \$1,525,000

For this preliminary budget, the 2021 operating costs, including chemicals, fuel, sludge haulage, Sewage Fees, and insurance are estimated at \$4.375 million. The estimate reflects a net 0.49% projected increase compared to the 2020 budget.

Operating Expenses

Operating expenses that are projected for the 2021 preliminary budget are approximately \$1,030,000 and represents a \$52,000 net increase over the 2020 budgeted amount. This net increase is primarily due to marginal increasing on administration costs and anticipated increases in taxes.

Preliminary 2021 Capital Budget:

Items that correlate to the LAWSS Capital Plan for 2021 and included in the budget proposal are listed below:

2021 Capital	Budget
WTP- 5kV Motor Control Group A & B	\$696,000
WTP- Main Plant HVAC Repair	\$738,000
WTP- Outdoor Pathway Lighting + WLPS- Exterior	\$200,000
WLPS- South Reservoir Refurbish	\$5,600,000
Indian Road WT Refurbish	\$120,000
2021 Major Maintenance	
Replace 7 Chlorine On-Line Analyzers	\$15,000
Gearbox Refurb at Floc Tanks 2/yr	\$21,500
Sluice gate inspection & Maintenance	\$15,000
Vibration Monitoring	\$2,000
Security Camera Upgrade	\$45,000
Person Down Alarm Monitor 3rd party	\$6,500
3rd party electrical inspection	\$17,000
Wet Well low Lift cleanout	\$15,000
Electrical Inspection-3rd party contractor	\$10,000
Motor HLP-2 (VFD Compliant)	\$23,000

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Electrical Inspection-3rd party contractor	\$5,000
Hydrant Installation- 6622 London Line	\$17,000
Chamber (flow) abandonment	\$20,000
Hydrant Isolation valve repairs x (3) (gland bolts)	\$15,000
Concrete Pipe end closures and 20' lengths	\$15,000
2021 Engineering Studies	
System - Asset Management Plan	\$150,000

Items that are not included on the Capital Plan but will be part of the 2021 Budget Proposal are listed below.

WTP Reservoir- Capital to facilitate Maintenance	\$250,000
WTP Fuel System Upgrade including Engineering	\$1,000,000
Sewage Pump Replacement	\$5,000
UPS Module Replacement	\$5,000
Filter Rotork Valve Replacement	\$10,000
Low Lift Dewatering Pump	\$3,000

WTP Reservoir- Capital improvement to facilitate future maintenance

Emergency repair work that was completed in 2020 on the WTP's 65ML reservoir allowed for the development of an improved preventative maintenance scenario. Various maintenance constraints exist that must be corrected prior to any long-term shutdown of the storage facility. This work primarily includes the removal of water service connections tapped directly into LAWSS transmission pipeline within a certain proximity of the WTP.

WTP Fuel System Upgrade, Including Engineering

Appendix A: Staff Report- Fuel Storage and Delivery System for Diesel Generators at WTP, date June 25, 2020 is attached.

2021 Capital Plan

The most current Capital Plan is presented in Appendix B.

Lifecycle Projects (Maintain Level of Service (LOS))

Proposed projects in the 2021 Capital Budget aimed at maintaining current LOS.

- WTP- 5kV Motor Control Group A & B
- WTP- Main Plant HVAC Repair

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- WTP- Fuel System
- WLPS- South Reservoir Refurbish.
- Indian Road WT Refurbish

In addition to the above-noted capital projects, the 2021 Capital Budget includes Major Maintenance Projects. Major Maintenance projects are defined by the service agreement as maintenance projects estimated to not exceed \$50,000. These projects are undertaken by the contracted operating authority, OCWA, on behalf of the Board.

Service Improvement Projects (Enhanced Level of Service, Regulatory Changes, Efficiency)

Proposed projects in the 2021 Capital Budget geared towards enhancing LOS.

- WTP- Outdoor Pathway Lighting + WLPS- Exterior
- WTP- Servicing relocating related to Reservoir Maintenance
- System- Asset Management Plan

Capital Forecast:

A number of capital projects are projected beyond the 2021 Capital Budget year, which will have an impact on the financial forecast and future water rates for the water system. LAWSS Asset Management Plan is in need of a rebuild and is included in the 2021 Capital Budget proposal. An overall rebuild of the LAWSS Financial Plan to align with the newly updated Master Plan and Asset Management Plan is anticipated in 2022.

Flow and Financial Analysis:

To fund the work forecasted in the Capital Plan a 4.7% increase is needed over each of the next two years to the overall LAWSS Budget.

2019 Demand Actuals (Flow) are used to determine cost allocation between Member Municipalities in the current years budget proposal. Flow data collected between January 2020 and August 2020 were used to determine anticipated total 2020 demand. A 5-year trending analysis was used to estimate total demand beyond 2020.

Actual 2019 demand for all sources	18,155,069 m ³
Anticipated 2020 Total Demand (Estimate based on Jan-April 2020 Actuals)	18,336,620m ³
Anticipated 2021 Total Demand (Estimate based on 2016-2020 Trending)	18,394,000m ³

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Financial forecast in Table #2 expresses cash flow at 4.7% increase if maintained for the next 2 years. Note that the total expenses in 2022 nearly exceed the starting balance for that year. Please note that LAWSS may need to go into debt to offset the timing of cashflow in 2022.

Table #2	Budget 2020	Prop. 2021	2022	2023	2024	2025
Annual Demand (MI)	17.81	18.16	18.34	18.39	18.64	18.89
Water Rate (/m ³)	\$0.5459	\$0.5607	\$0.5812	\$0.5812	\$0.5812	\$0.5812
Budget % Incr	1.5%	4.7%	4.7%	0.0%	0.0%	0.0%
Starting Balance (x1000)	\$4,196	\$6,940	\$2,685	\$79	\$4,461	\$6,130
Total Revenue (x1000)	\$9,896	\$10,394	\$10,808	\$10,843	\$10,988	\$11,136
Total Expenses (x1000)	\$7,152	\$14,649	\$13,415	\$6,460	\$9,320	\$5,953
Ending Balance (x1000)	\$6,940	\$2,685	\$79	\$4,461	\$6,130	\$11,313

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

Attachment(s):

Appendix A- Staff Report- Fuel Storage and Delivery System for Diesel Generators at WTP, date June 25, 2020.

Appendix B- Capital Plan

2021 PRELIMINARY LAWSS OPERATING, MAINTENANCE, AND CAPITAL SUMMARY BUDGET

ITEM	Previous	Current	Sarnia	St. Clair	Plympton-Wyoming	Warwick	Point Edward	Lambton Shores
2021 Percent Budget Allocations Based on 2019 Flows			59.34%	29.18%	5.07%	2.24%	2.32%	1.85%
<i>2020 Percent Budget Allocations Based on 2018 Flows</i>			<i>58.34%</i>	<i>29.78%</i>	<i>4.98%</i>	<i>2.57%</i>	<i>2.40%</i>	<i>1.93%</i>
2021 OPERATING AND MAINTENANCE COSTS (OCWA) CPI = (1.6%+(-0.2%))/2=0.7%=1%)								
Service Fee	\$2,214,969	\$2,237,119						
Hydro	\$1,525,000	\$1,525,000						
Sludge Haulage	\$150,000	\$150,000						
Point Edward Sewage Fee	\$92,450	\$92,450						
Chemicals	\$270,860	\$270,860						
Insurance	\$90,960	\$90,960						
Diesel Fuel	\$9,000	\$9,000						
Subtotal	\$4,353,239	\$4,375,389	\$2,583,212	\$1,270,275	\$220,709	\$97,513	\$100,995	\$80,535
2021 LAWSS OPERATING								
Emergency Repairs	\$200,000	\$200,000						
Special Facility Maintenance	\$30,000	\$30,000						
General and Administrative Expense	\$348,000	\$400,000						
Staff Salary and Benefits	\$250,000	\$250,000						
Schedule G Reconciliation Estimate	\$150,000	\$150,000						
Subtotal	\$978,000	\$1,030,000	\$580,345	\$285,380	\$49,585	\$21,907	\$22,690	\$18,093
TOTAL OPERATING AND MAINTENANCE	\$5,331,239	\$5,405,389	\$3,163,557	\$1,555,656	\$270,294	\$119,420	\$123,685	\$98,628
2021 Capital Projects								
Fuel System		\$1,000,000						
5kV Motor Control Group A & B		\$696,000						
WTP Main Plant HVAC Repair		\$738,000						
Outdoor Pathway Lighting		\$200,000						
WLPS- South Reservoir Refurbish.		\$5,600,000						
Indian Road WT Refurbish		\$120,000						
Servicing related to WTP Reservoir		\$250,000						
2021 Engineering Studies								
System - Asset Management Plan		\$150,000						
System - Ui-driection Flushing program		\$225,000						
Funds to Reserve								
TOTAL 2021 CAPITAL		\$8,979,000	\$5,328,139	\$2,620,072	\$455,235	\$201,130	\$208,313	\$166,112

2021 LAWSS MAJOR MAINTENANCE								
Replace 7 Chlorine On-Line Analyzers		\$15,000						
Gearbox Refurb at Floc Tanks 2/yr		\$21,500						
Sluice gate inspection & Maintenance		\$15,000						
Vibraton Monitoring		\$2,000						
Security Camera Upgrade		\$45,000						
Person Down Alarm Monitor 3rd party		\$6,500						
3rd party electrical inspection		\$17,000						
Wet Well low Lift cleanout		\$15,000						
Electrical Inspection-3rd party contractor		\$10,000						
Motor HLP-2 (VFD Compliant)		\$23,000						
Electrical Inspection-3rd party contractor		\$5,000						
Hydrant Installation- 6622 London Line		\$17,000						
Chamber (flow) abandonment		\$20,000						
Hydrant Isolation valve repairs x (3) (gland bolts)		\$15,000						
Concrete Pipe end closures and 20' lengths		\$15,000						
Sewage pump Replacement		\$5,000						
UPS Module Replacement		\$5,000						
Filter Rotork Valve Replacement		\$10,000						
Low Lift Valve Replacement		\$3,000						
TOTAL 2021 MAJOR MAINTENANCE		\$265,000	\$157,251	\$77,327	\$13,436	\$5,936	\$6,148	\$4,903
Revenue From Reserve		-\$4,255,000						
Revenue from Sale of Water		-\$100,000						
Revenue from Interest or Rental Fees		-\$115,000						
TOTAL EXPENDITURES		\$14,649,389	\$8,692,947	\$4,274,692	\$742,724	\$328,146	\$339,866	\$271,014
TOTAL REVENUE		-\$4,470,000	-\$2,652,498	-\$1,304,346	-\$226,629	-\$100,128	-\$103,704	-\$82,695
2021 Total Budget/Operating/Maintenance/Capital		\$10,179,389	\$6,040,449	\$2,970,346	\$516,095	\$228,018	\$236,162	\$188,319
<i>2020 Total Budget</i>		<i>\$9,723,795</i>	<i>\$5,672,862</i>	<i>\$2,895,746</i>	<i>\$484,245</i>	<i>\$249,902</i>	<i>\$233,371</i>	<i>\$187,669</i>

4.68535%6.48%2.58%6.58%-8.76%1.20%0.35%

\$0.5607 per cubic metre

**Appendix A: Lambton Area Water Supply System
2020 Budget
2020 Capital Plan with Forecast for 2020 to 2025
(\$000's)**

No.		Description	Prev.	2019	2020	2021	2022	2023	2024	2025
1	WTP	MM	Filter Core Sampling		15					15
2	WTP	MM	VFD Flocc Mixers		45					
3	WTP	MM	Replace 7 Chlorine On-Line Analyzers		20	15				
4	WTP		Electrical Upgrade (Reliability Study)		500	90	696	677	282	16
12	WTP	MM	Chemical Feed Pumps (3)		16					
13	WTP		Main Plant HVAC Rehab		111	738				
14	WTP	MM	Gearbox Refurb at Flocc Tanks 2/yr		42	43				
15	WTP	MM	Lab pH meter replacement		3					
16	WTP		Radio PLC Upgrade	352	160					
17	WTP		PLC conversion/upgrade construction		150	150	150	150	150	150
18	WTP	MM	Sluice gate inspection & Maintenance			15				
19	WTP	MM	Vibration Monitoring Program		2	2	2	2	2	2
20	WTP		Admin HVAC Replacement		250					
21	WTP	MM	Security Camera Upgrades			45				
22	WTP	MM	Person Down Alarm Monitor 3rd party			5				
23	WTP	MM	3rd party electrical inspection			18		18		25
24	WTP	MM	Valve gate isolation(3) 10 inch			25				
25	WTP	MM	Low Lift Wet Well Cleanout			15	15	15	15	15
26	WTP		Emergency Generator w/ Main Plant 4160V Switchgear	4150	1,616					
27	WTP		Lighting/Barrier North walkway (outdoors)			200				
28	WTP		Inlet Water Screens					185	185	
29	WTP		Pump Upgrade Demand forecast						350	
30	WTP	MM	EQ Tank Cleanout Inspection							22
	WLPS		Storage Tank (South) Rehabilitation		60	5,600				
32	WLPS		Storage Tank (North) Rehabilitation		60		5,600			
36	WLPS	MM	Electrical Inspection-3rd party contractor		10	10		10		10
37	WLPS	MM	Motor HLP-2 (VFD Compliant)			25				
38	WLPS		36" Ross Valve	70						
39	WLPS	MM	Crack Injection (West Wall)			5				
40	WLPS	MM	Valve Discharge P1 Refurbish		25					
42	ELBS	MM	Electrical Inspection-3rd party contractor		5	5		5		5
44	ELBS	MM	Actuator Inlet Valve (electronic)						14	
45	SYS.		Field Gate 4 G network upgrade		75					
47	SYS.		Indian Road Water Tower Rehabilitation		30	120		270	3,000	
48	SYS.		Loop Study (including OCWA's time)		300					
52	SYS.	MM	Hydrant Installation- 6622 London Line		20	20	20	20		
53	SYS.		Leak Detection		230					
54	SYS.	MM	Chamber (flow) abandonment		20	20	20	20		
55	SYS.	MM	Air Relief valve- 5867 Confederation Line		15					
56	SYS.	MM	Hydrant Isolation valve repairs x (3) (gland bolts)		15	2				
57	SYS.		Flow Restriction/Chamber Removal		175					
58	SYS.	MM	Concrete Pipe end closures and 20' lengths		10	15	15	15	15	15
59	SYS.		Port Lambton Tower refurbish				1,400			
61	SYS.	MM	Repair Clamps & Appurtenances	10	10	10	10	10	10	10
62	ENG.		System - Master Plan		250					
63	ENG.		System - Asset Management Plan			150				
64	ENG.		System - Financial Plan				150			
65	ENG.		WTP- Travelling Water Screen Assessment		12					
66	ENG.		System - Energy Efficient Lighting grant program		2					
67	ENG.		System - Power factor study WTP)		2					
68	ENG.		System - Pump Upgrades for forecasted demand growth		2					
70	ENG.		Corrosion Control Member Municipality Impact Study		113					
71	ENG.		WTP - Backwash Pump softstart or VFD conversion		2					
72	ENG.		WTP - Electrical Reliability Study							
	ENG.		Twinning & Grid-Municipal Class EA (Addendum)		105					
73	ENG.		WTP - HVAC Dehumidification		20					
74	ENG.		WTP - Pump Upgrade to match growth strategy							
	ENG.		Watermain Condition Assessment		35					
75	ENG.		WTP - Filter Core sampling							15
76	ENG.		Condition Assessment - WLPS & Indian Road WT		30					
77	ENG.		Condition Assessment - Port Lambton SP & Watford SP		30					
Total:			\$4,572	\$3,168	\$1,721	\$7,769	\$8,059	\$1,002	\$3,757	\$284

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

From: Clinton Harper
General Manager

Subject: Risk Management Services Progress Report and Proposed
Service Agreement Amendment

Recommendation

It is recommended that LAWSS Joint Board of Management

- 1) receive the Upper Thames River Conservation Authority (UTRCA) Risk Management Service 2020 Progress Report as information,
- 2) amend the LAWSS-UTRCA agreement to include the City of Sarnia for the balance of the 2020.

Background:

Enforcement of source water protection plans and policies, developed under the Clean Water Act, are administered and enforced by a designated Risk Management Official and Risk Management Inspector. Municipalities are responsible for various requirements, including enforcement, of source protection plan policies either directly with municipal staff or indirectly by designating an enforcement body.

In September 2018 LAWSS entered into a Source Protection Joint Risk Management Service Agreement with the Upper Thames River Conservation Authority (UTRCA) for the purpose of developing and implementing a joint program for the enforcement and jurisdictional rights under the appropriate section of the Clean Water Act. LAWSS Members included in the 2018 agreement are the Municipality of Lambton Shores, the Town of Plympton-Wyoming, the Village of Point Edward and St. Clair Township.

Comments:

Attached is the 2020 UTRCA Risk Management Service Progress Report. With staff changes at the City of Sarnia, the City no longer has qualified staff to fulfill the risk management duties and have requested LAWSS amend the existing LAWSS-UTRCA agreement to include the City. The annual cost to LAWSS to maintain the agreement is \$28,160.

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Consultation:

The Upper Thames River Conservation Area provided updated pricing that includes the City of Sarnia beginning on July 1, 2020.

Financial Implications:

UTRCA has provided a quote of \$10,500 to LAWSS for an update to the service agreement to include the City of Sarnia for the balance of 2020. The current service agreement between LAWSS and the UTRCA expires at the end of 2020. The Board will be presented with the option to renew the agreement at an upcoming meeting of the LAWSS Board.

This report was prepared by Clinton Harper, LAWSS General Manager

Attachment(s):

UTRA Risk Management Services- 2020 Progress Report

Amendment No. 1- Source Protection Joint Risk Management Service Agreement between Upper Thames River Conservation Authority and Lambton Area Water Supply System.

Upper Thames River Conservation Authority Risk Management Services



2020 Progress Report

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Progress Overview

Source water is the water that we take from the ground, lakes or rivers to supply people with drinking water. Based on the recommendations of the Walkerton Inquiry, the Clean Water Act, 2006 is part of the Ontario government's commitment to protecting municipal drinking water from contamination and overuse. The Clean Water Act led to the implementation of Source Protection Plans (SPPs) across Ontario following an extensive process that included the development of science-based watershed assessments, broad public input, and collaboration with stakeholders. The Thames-Sydenham and Region SPP came into effect on December 31, 2015.

The SPP contains policies written under Part IV of the Clean Water Act, which municipalities are required to implement. These policies ensure that Significant Drinking Water Threat (SDWT) activities identified in vulnerable areas of groundwater wells or surface water intakes will not pose a risk to source water. Part IV policies must be implemented by a specially trained and certified Risk Management Official and/or Risk Management Inspector (RMO/I). Eleven municipalities in the Thames-Sydenham and Region have delegated their obligations under Part IV of the Clean Water Act to the Upper Thames River Conservation Authority (UTRCA). The terms of the current service agreement with these municipalities will expire at the end of this calendar year on December 31, 2020. In the near future we will provide a proposal to renew these agreements, and we hope to remain partners in the delivery of risk management services within your municipalities in the years to come.

This annual progress report was developed to detail the progress made by our Risk Management Officials and Inspectors towards the implementation of Part IV policies within your municipalities. The report includes actions taken since the SPP came into effect in 2015, highlights some of the specific actions taken in 2019, and provides information about some of our plans for 2020.

Risk Management Plans and Inspections

2019 was a productive year for our risk management staff. Negotiation of risk management plans with businesses, farmers and institutions to manage existing threats has continued, and we are close to completing all risk management plans for threats that were originally identified at the time the SPP was approved. Our risk management staff work with land and business owners to build on existing best management practices, and develop practical plans that minimize the impact to business and productivity.

Follow-up compliance monitoring is conducted each year following the establishment of a risk management plan, and more thorough compliance inspections are conducted every five years. The monitoring and inspections ensure Risk Management Plans are effectively implemented and all risk management measures have been executed. Failure to implement the plans can lead to

formal enforcement action. This can include, if necessary, the issuance of orders to complete work and to pay for any work completed by the Risk Management Official. The number of risk management plans established, and inspections undertaken by our Risk Management Officials is provided in table format for each municipality in the pages that follow.

Managing Threats from New Development

Some of the policies in the Thames-Sydenham and Region Source Protection Plan were included to ensure new development considers source protection vulnerable areas. Certain development applications within vulnerable areas are sent to our Risk Management Officials for review by municipal building and planning staff to ensure growth is compatible with drinking water protection. The Clean Water Act requires a section 59 notice for developments near municipal wells and intakes to determine if an application has the potential to introduce a new threat to drinking water. A notice is required before planning and building applications can be deemed complete. Information about the number of development applications reviewed, and the number of section 59 notices issued within each municipality is provided in this report.

Education and Outreach

It is hard to believe that this past May marked 20 years since the water supply in Walkerton, Ontario was contaminated with *E. coli* and *Campylobacter jejuni* bacteria, resulting in the death of 7 people and severe illness affecting over 2,000 people. As the world deals with the current COVID-19 pandemic we are reminded of the importance of our health care sector, and everyone working in the water industry, who continue to work diligently to ensure the safety and security of our drinking water, and the general health and well being of all residents of the Province of Ontario. Although planned events to commemorate the water tragedy in Walkerton were all cancelled due to the pandemic, significant efforts have been made to communicate the tremendous progress that has been made since 2000 to improve the quality of municipal drinking water by following the recommendations of the Walkerton Inquiry. We have included a recent blog post immediately following this overview which summarizes some of the information that has been circulating.

Locally, our Risk Management staff developed some great new communications products in 2019, to assist in communicating the role that source protection plays in water management, and to support the development of risk management plans. These include our new roll-up banners that are being displayed in municipal offices on a rotating basis, as well as spills response posters that were developed for business owners that require them as part of their risk management plans. See pictures of both of these products at the end of the report. Additionally, we have highlighted some of the events that risk management staff attended in 2019 as well as some that are/were planned for 2020.

Summary

Overall, there has been significant progress made in 2019. Many conversations have been had with landowners and tenants of properties that had originally been identified as having significant drinking water threats and properties identified by the Risk Management Officials. Staff have been working collaboratively with residents to verify the existence of these threats and, where required, negotiate and establish risk management plans. An inspection and compliance program has been established in order to monitor properties within vulnerable areas. The following pages provide a numerical breakdown of the risk management services provided by UTRCA for each municipality. Overall, the 2019 operating expenses were on track, we expect to fulfill our current agreement deliverables within budget.

Remembering Walkerton: 20 Years since the Drinking Water Tragedy

05/12/2020 Watershed Source Water Protection



As we face the COVID-19 pandemic and its severe impacts, we realize just how important it is to safeguard our health. One of our primary needs is clean, safe drinking water. And, while we adapt to current pandemic conditions in 2020, we are reminded of another public health tragedy that struck one of our communities twenty years ago, and we reflect on the vast improvements made since then.

In May 2000, a municipal well in Walkerton became contaminated with a deadly bacteria. Seven people including a child died due to the contamination, and many residents were left with severe long-term illnesses.

The Government of Ontario established a public inquiry into the drinking water tragedy, led by Justice Dennis O'Connor. He developed 121 recommendations that became the building blocks of today's [multi-barrier framework](#) for drinking water protection in Ontario. It includes the *Safe Drinking Water Act (2002)*, *Clean Water Act (2006)*, and other measures.

Twenty years have passed since the Walkerton water tragedy. There is much we have learned and accomplished since then. And yet, there is much to do. We know that protecting our

drinking water is a vital and shared ongoing responsibility – [*and it starts right at the water source!*](#)

In Ontario, the [*Clean Water Act \(2006\)*](#) protects sources of municipal residential drinking water systems; other types of systems may be included too. The legislation established 19 multi-stakeholder, decision-making source protection committees including municipalities, and 38 source protection authorities comprised of Ontario's conservation authorities, the Severn Sound Environmental Association, and the Municipality of Northern Bruce Peninsula.

Working together on a [watershed basis](#), these groups developed local [source protection plans](#) containing more than 12,500 policies that protect municipal drinking water sources of:

- Over 900 groundwater wells
- Over 70 Great Lakes intakes
- Over 60 inland intakes
- And, 13 Lake St. Clair and St. Lawrence River intakes

Around two-thirds of the policies are implemented by municipalities, close to one-third by provincial ministries, and the rest by conservation authorities and others. Every year, policy implementers report on their progress to source protection authorities. Significant milestones include:

- Over 1000 risk management plans established
- Over 5000 septic systems inspected
- Over 900 [road signs](#) installed to identify drinking water protection zones

Through the *Safe Drinking Water Act (2002)*, municipalities provide safe, clean treated drinking water to 85% of Ontarians as part of the multi-barrier approach. The Government of Ontario conducts regular inspections of the water treatment plants. *Trust the Tap!*

Our work continues, as we face both ongoing and new challenges. We are living in a changing climate that exacerbates environmental conditions. Frequent floods impact life and property, and compromise water quality. In some parts of Ontario, water supply is affected by droughts. Many First Nations communities suffer from drinking water advisories. Emerging contaminants like microplastics and certain chemicals used in firefighting foam are becoming a concern.

The watershed must continue to be the basis by which we manage and protect our sources of drinking water in Ontario, to help avoid water tragedies. To effectively protect both existing and future water supplies, watershed management must be applied. This includes watershed-wide monitoring for the early detection of water quality and supply problems.

[Watershed management](#) helps us face climate change and other challenges, while effectively supporting growth and development. It is applied in many parts of Ontario, but is needed for all

of our communities. Watershed management is a preventative measure, just like physical distancing measures prevent the spread of COVID-19.

In Walkerton, a waterfall memorial stands dedicated to the victims of the water contamination tragedy. It is a stark reminder to all of us about the crucial need for proper water management. This year, in 2020, we commemorate Walkerton and renew our commitment to protecting drinking water sources for the generations to come.

Author: Conservation Ontario staff

Reports by Municipality

Please note the Risk Management Stats provided within this report represent the cumulative count for each line item completed since the Source Protection Plan took effect; or since UTRCA began providing risk management services for the municipality.

Details regarding risk management services provided for each municipality are displayed in chart form. The chart below provides an explanation of those details to help you interpret the numbers reported.

Risk Management Stat	Details
Threats enumerated in the 2015 Assessment Report	Total # of individual significant drinking water threats enumerated in the original (2015) Assessment Report (2015).
Sites Identified by Risk Management Official	Additional sites with potential threats identified by a Risk Management Official, not captured in the (2015) Assessment Report.
Map Provided	Map generated for a specific site (via roll #); detailing zone scores and boundaries. In some instances, RMO will detail where the activity of concern is occurring on a site.
Threat Verification Survey	Surveys were mailed out to sites with significant threats enumerated in the original assessment report (2015). The number reported details the number of completed surveys returned to the RMO. Respondents indicated activities currently being undertaken or those that may occur in the future. RMO's followed up to determine if the activities met circumstances requiring a risk management plan (S.58) and/or prohibition (S.57) process.
Clearance Letter	<p>Verifies the parcel noted is within a vulnerable area however, the threat verification process has determined either:</p> <ul style="list-style-type: none"> • a significant threat activity is not occurring under circumstances requiring a risk management plan, or; • a septic system is the only significant drinking water threat on site and the municipality will implement an on-site sewage inspection program as regulated under the <i>Ontario Building Code Act</i>. <p>No risk management plan was required at the time the letter was issued. However, if activities undertaken are modified or new activities are planned in the future, the proponent is</p>

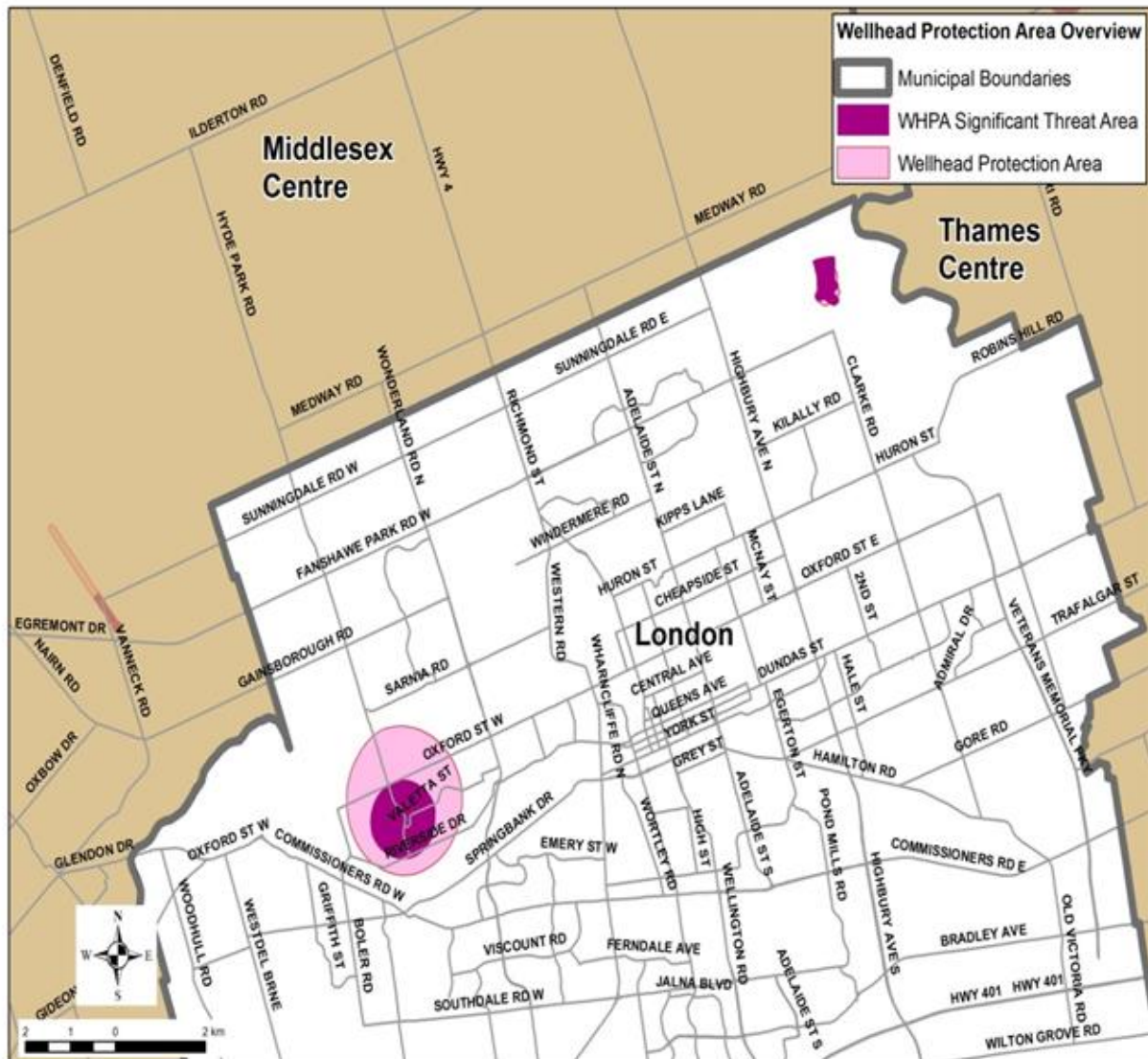
	directed to contact the Risk Management Official to determine if a risk management plan is required or prohibitions apply.
S.59 Screening & Inquires	<p>Section 59 of the <i>Clean Water Act</i> requires that if a source protection plan designates a land use as a restricted land use in a vulnerable area, a person shall not make an application under the <i>Planning Act</i>, or construct or change the use of a building under the <i>Building Code Act</i>, unless the Risk Management Official issues a notice to that person. The <i>Thames-Syndenham and Region Source Protection Plan</i> identifies all land uses, with the exception of residential uses, as restricted land uses, within the Wellhead Protection Areas A, B and C. Section 59.2(a) notices are issued when neither a prohibition nor a risk management plan apply to the existing or proposed activity. Alternatively, if a prohibition or risk management plan is required, a Section 59.2(b) notice will be issued only after those requirements have been agreed to or established; at such time the notice will indicate the application process may proceed.</p> <p>If a general inquiry or Section 59 screening form is submitted and the Risk Management Official (RMO) reviews the information and confirms a residential exemption applies or the parcel is outside of a significant threat zone, the RMO will advise the municipality and applicant the application can proceed without further review by the RMO.</p>
Notice S.59 - 2(a) & 2(b)	
Risk Management Plan Notice S.58(4) S.58(6) & 58(7)	<p>Section 58(4) - Notice indicates one or more activities engaged in, or proposed to be engaged in, at the noted address has been identified as a significant drinking water threat and requires a risk management plan. Proponent is informed they must contact the Risk Management official by a certain date to begin the risk management plan process and provide any requested information.</p> <p>Section 58(6) - Notice of agreement/negotiation of a risk management plan between the Risk Management Official and Person Engaged in the Activity.</p> <p>Section 58(7) - Notice states that a risk management plan is required. If a risk management plan cannot be agreed to by a certain date, it is the intent of the Risk Management Official to establish one for the identified activities by Order (S.59(1)). Risk Management Officials may use this tool to move the risk management process along if not being achieved in a timely manner.</p>
Risk Management Plan S.58(5) & S.58(10)	Section 58(5) - risk management plan has been negotiated or agreed to between the Risk Management Official and

	<p>Person Engaged in the Activity.</p> <p>Section 58(10) - risk management plan established by Order of the Risk Management Official.</p> <p><i>Note: Risk management plans manage one or more significant threats on a particular parcel or parcels. For example, a business which operates on two parcels (adjacent or not) may have a single risk management plan that manages all significant threat activities associated with both parcels.</i></p>
Prohibition Letters	Details activities that are prohibited on a parcel; both existing and future.
Order	Confirms agreement on a risk management plan has not been reached by the deadline outlined in the S. 58(7) notice and therefore a risk management plan will be established; including any prohibitions that may apply.
Certificate of Service	Issued under ss. 100(1) of the <i>Clean Water Act</i> , 2006 which states the Risk Management Official has served a true copy of the Order to the Person Engaged in the Activity or person named.
Compliance Review & Inspection	Risk Management Inspectors execute interim reviews of risk management plans with the Person Engaged in the Activity; this process ensures information within the agreement stays accurate and risk management measures are implemented and working effectively. This may or may not include an on-site inspection to ensure all significant threat activities are identified and managed so that it ceases to be, or never becomes, a significant drinking water threat. Additionally, any prohibited activities are also monitored to ensure ongoing compliance.
Site Visits Completed	Risk Management Official / Inspector visited individual sites or completed driving tours with/or without municipal representatives for the purposes of identifying new threats and/or verifying compliance of risk management plan and/or prohibitions.
Sites in Progress	Sites identified in the original Assessment Report (2015) or identified by the Risk Management Official that are in the process of threat verification, risk management plan, policy review/amendment, negotiations and/or prohibition process.
Education & Outreach – Industrial, Commercial & Residential (DNAPL policy)	<p><i>Policy 2.45 Handling and Storage of DNAPL - Education and Outreach</i></p> <p><i>To reduce the risk to municipal drinking water sources from the handling and storage of dense non-aqueous phase liquids</i></p>

	<p><i>in concentrations typical of household use, where this activity is, or would be, a significant drinking water threat, municipalities, in collaboration with the Conservation Authority, the Ministry of Environment, and/or wherever possible other bodies, shall develop and implement an education and outreach program directed at the owners and/or occupants of such properties. The program may include, but not necessarily be limited to, the provision of education material and information about the nature of the threat, how DNAPLs can be identified and handled and disposed of in a manner so that the activity would cease to be or never become a significant drinking water threat. This policy shall be initiated within one (1) year of the effective date of the Source Protection Plan.</i></p> <p>In response to this policy, a website (www.protectingourwater.ca) was developed and door hangers with magnets were delivered to all residential properties in the wellhead protection area zones A, B & C. These products direct residents to their local hazardous waste depot, detail how to identify, handle and store hazardous products as well as provide some interesting information about their local drinking water.</p> <p>Additionally, some municipalities identified the need for customized source water protection communication products (i.e. factsheets, letters, etc.) to address a local concern. These products could include distribution to industrial, commercial and/or residential properties.</p>
Source Water Protection Training Package	<p>Every risk management plan requires general source water protection training to be implemented for all applicable staff. Risk Management Officials recognized the benefit of developing and offering accessible training tools that would provide consistent messaging and support the proponent in meeting those requirements.</p> <p>Training package (made available digitally by email or via USB drive) includes: SWP training video, RMO/RMI factsheet and SWP FAQ</p>

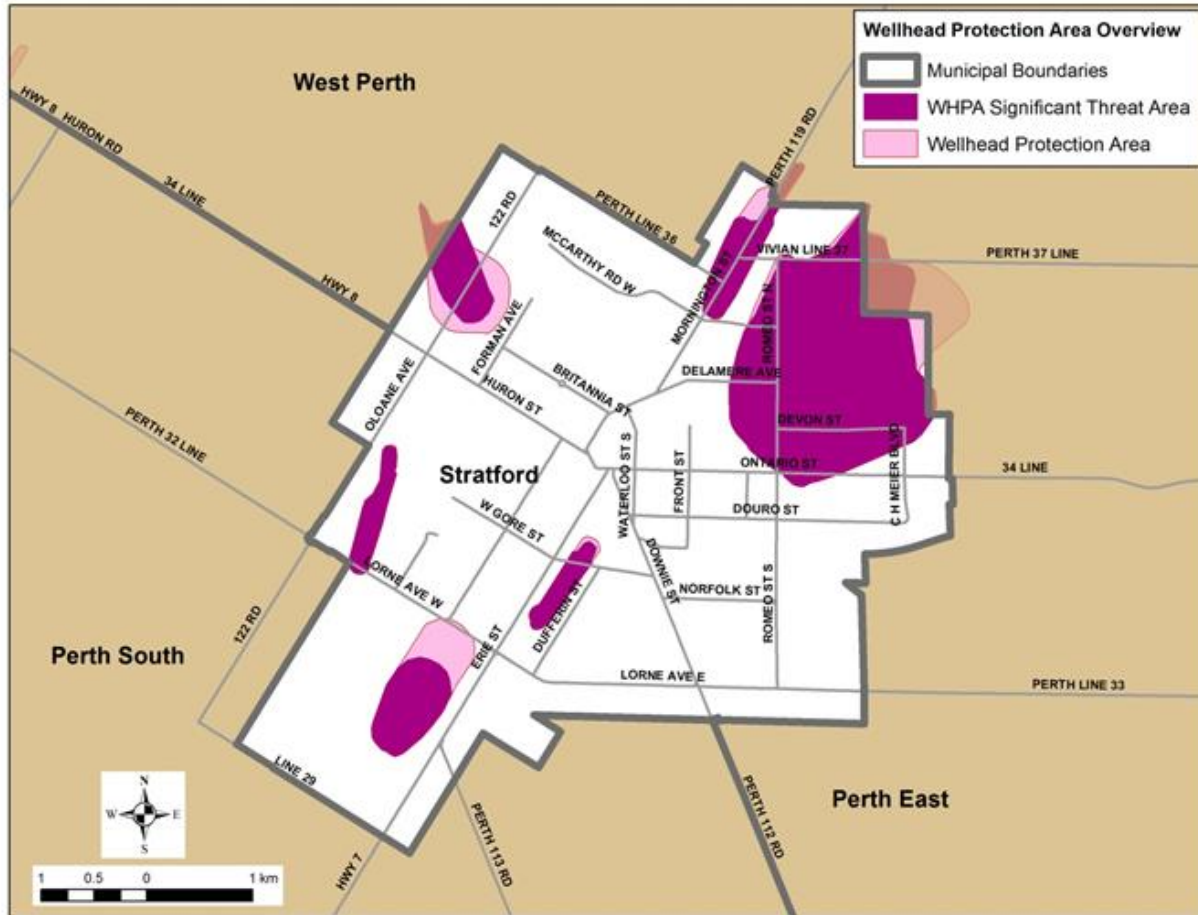
City of London

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	17
Sites Identified by Risk Management Official	0
Map Provided	10
Threat Verification Survey	3
Clearance - Septic Only (No other significant threats)	8
Restricted Land Use S.59 Screening & Inquires	0
Restricted Land Use Notice S.59 - 2(a) & 2(b)	0
Risk Management Plan Notice S.58.(6) & 58.(7)	3
Risk Management Plan S.58(5) & S.58(10)	3
Prohibition Letters	0
Orders Issued	0
Certificate of Service	0
Compliance Review & Inspection	2
Site Visits Completed	16
Sites in Progress	0
Education & Outreach – Industrial, Commercial & Residential (DNAPL policy) *City of London did not participate in this campaign	0
Source Water Protection Training Package	2



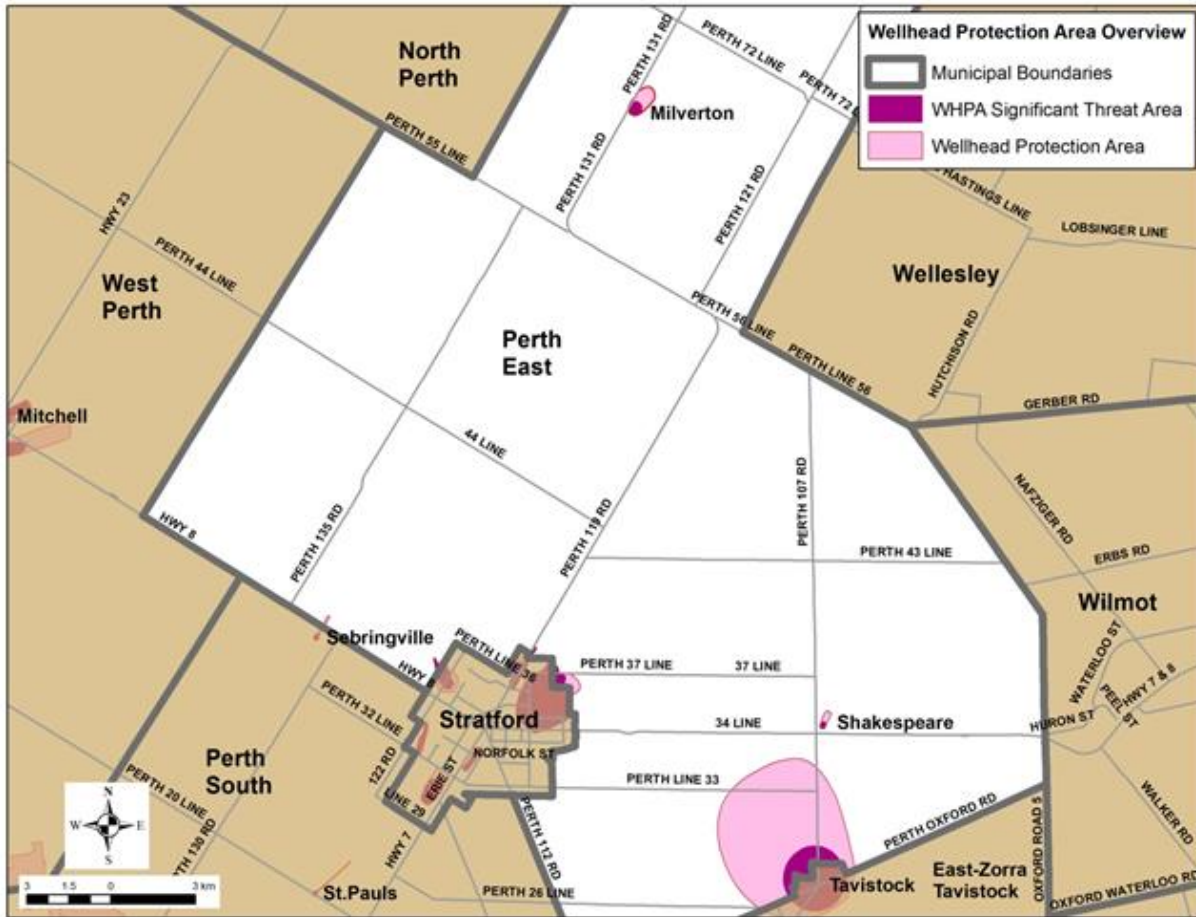
City of Stratford

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	56
Sites Identified by Risk Management Official	35
Map Provided	42
Threat Verification Survey	15
Clearance - Septic Only (No other significant threats)	39
Restricted Land Use S.59 Screening & Inquires	4
Restricted Land Use Notice S.59 - 2(a) & 2(b)	3
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	14
Risk Management Plan S.58(5) & S.58(10)	10
Prohibition Letters	1
Orders Issued	0
Certificate of Service	0
Compliance Review & Inspection	8
Site Visits Completed	127
Sites in Progress	2
Education & Outreach - Industrial, Commercial & Residential (DNAPL policy)	2121
Source Water Protection Training Package	10



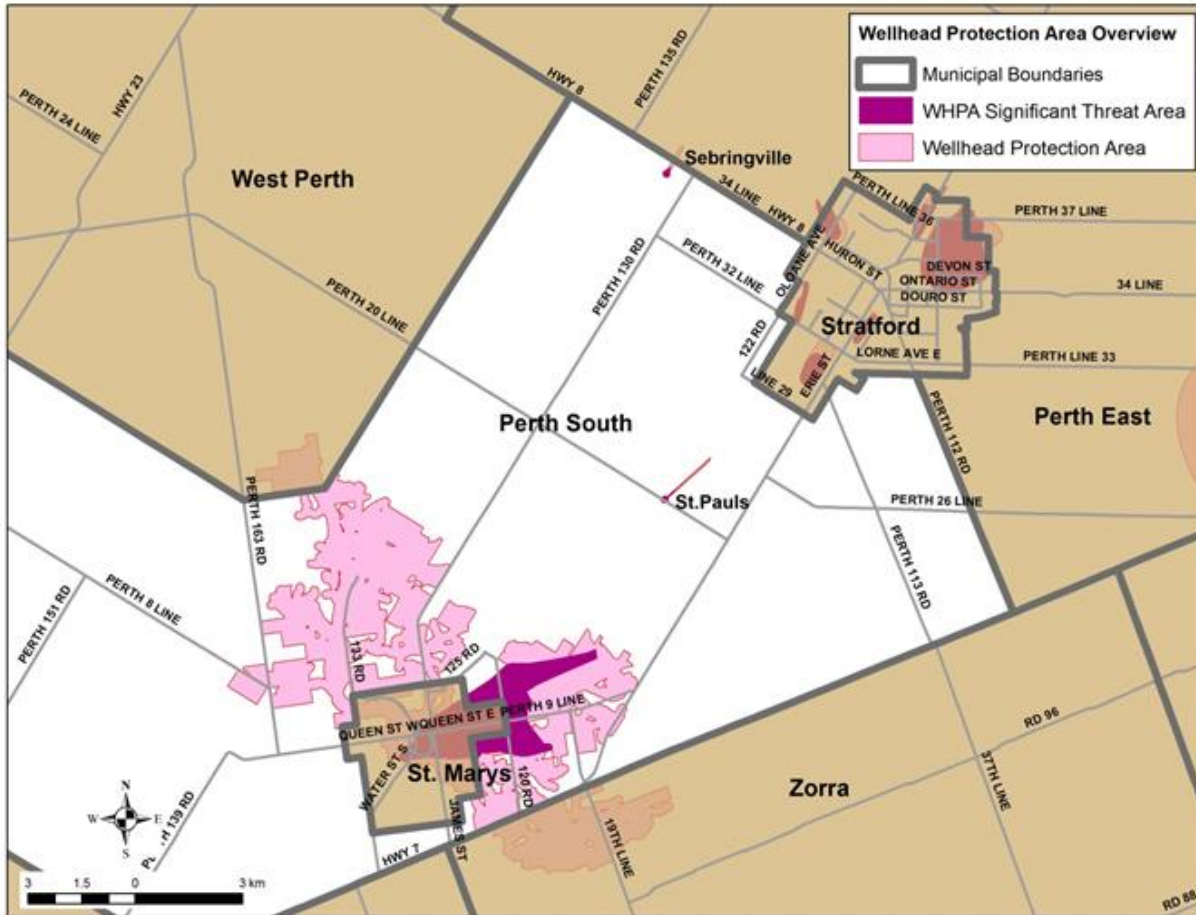
Township of Perth East

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	8
Sites Identified by Risk Management Official	3
Map Provided	14
Threat Verification Survey	4
Clearance - Septic Only (No other significant threats)	6
Restricted Land Use S.59 Screening & Inquiries	6
Restricted Land Use Notice S.59 - 2(a) & 2(b)	0
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	6
Risk Management Plan S.58(5) & S.58(10)	5
Prohibition Letter	2
Orders Issued	0
Certificate of Service	0
Compliance Review & Inspection	2
Site Visits Completed	27
Sites in Progress	0
Education & Outreach – Industrial, Residential & Commercial (DNAPL policy)	110
Source Water Protection Training Package	3



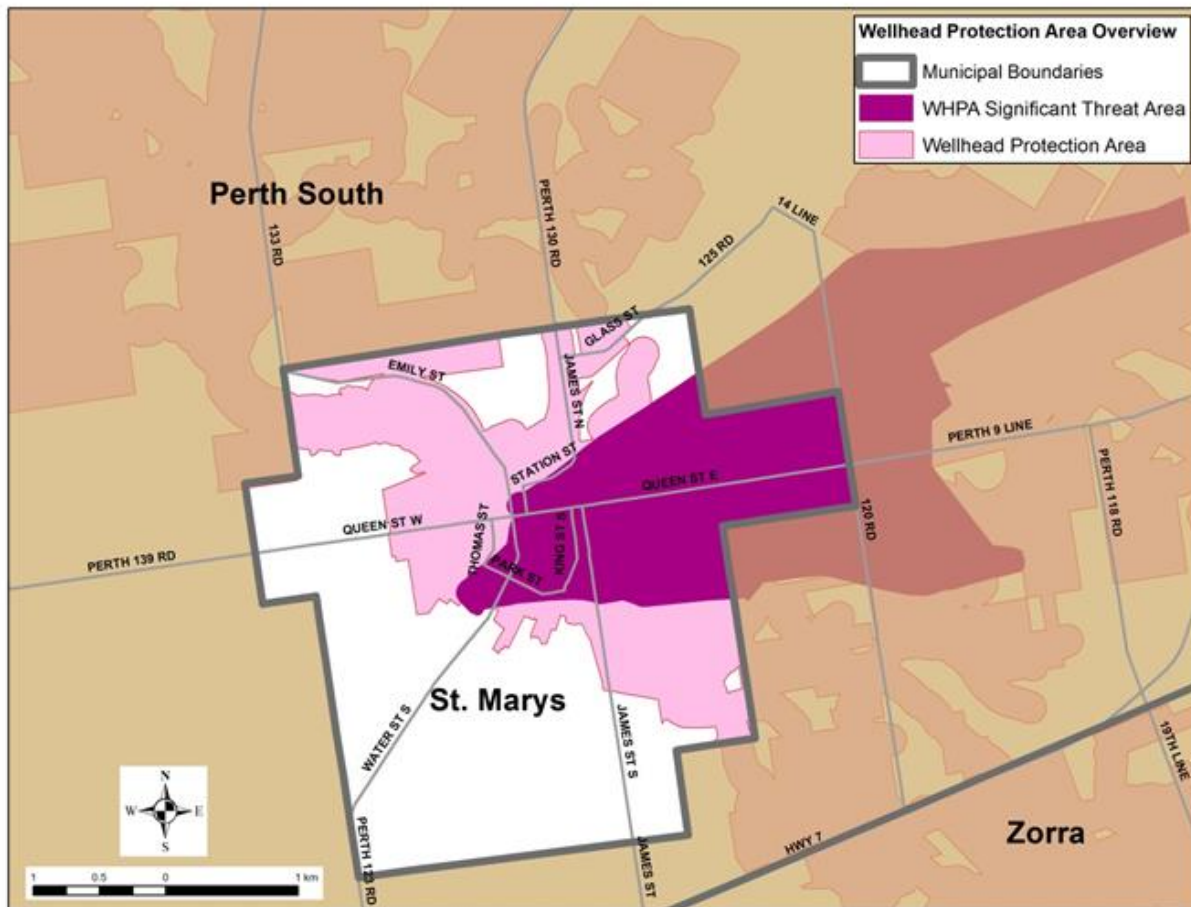
Township of Perth South

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	91
Sites Identified by Risk Management Official	1
Map Provided	45
Threat Verification Survey	13
Clearance - Septic Only (No other significant threats)	36
Restricted Land Use S.59 Screening & Inquires	5
Restricted Land Use Notice S.59 - 2(a) & 2(b)	3
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	4
Risk Management Plan S.58(5) & S.58(10)	4
Prohibition Letter	0
Orders Issued	1
Certificate of Service	1
Compliance Review & Inspection	2
Site Visits Completed	132
Sites in Progress	0
Education & Outreach – Industrial, Commercial & Residential (DNAPL policy)	78
Source Water Protection Training Package	1



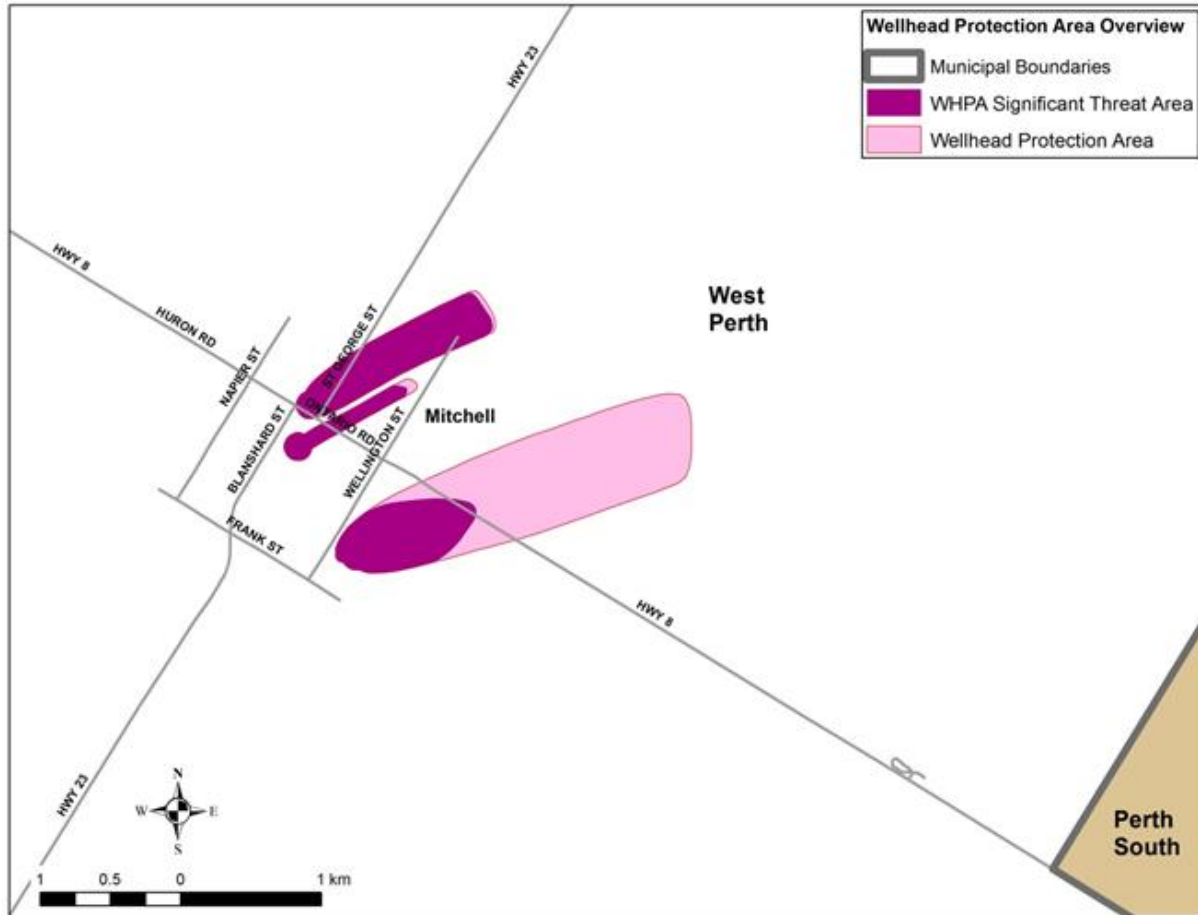
Town of St. Marys

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	134
Sites Identified by Risk Management Official	22
Map Provided	109
Threat Verification Survey	41
Clearance - Septic Only (No other significant threats)	66
Restricted Land Use S.59 Screening & Inquires	10
Restricted Land Use Notice S.59 - 2(a) & 2(b)	7
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	23
Risk Management Plan S.58(5) & S.58(10)	22
Orders Issued	0
Prohibition Letters	0
Certificate of Service	0
Compliance Review & Inspection	7
Site Visits Completed	248
Sites in Progress	0
Education & Outreach – Commercial, Industrial & Residential (DNAPL policy)	1247
Source Water Protection Training Package	9



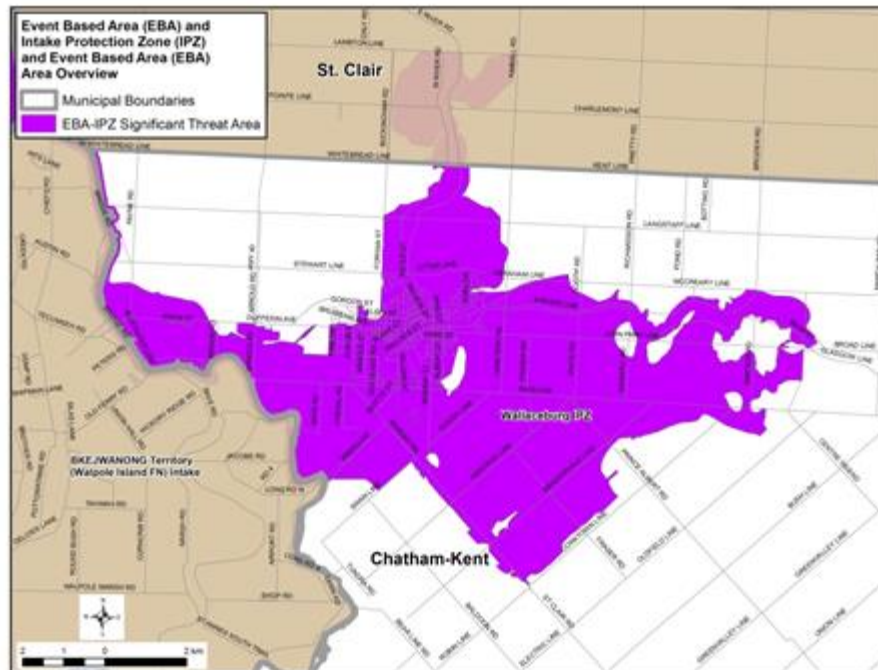
Municipality of West Perth

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	60
Sites Identified by Risk Management Official	3
Map Provided	24
Threat Verification Survey	11
Clearance - Septic Only (no other significant threats)	9
Restricted Land Use S.59 Screening & Inquires	8
Restricted Land Use Notice S.59 - 2(a) & 2(b)	7
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	11
Risk Management Plan S.58(5) & S.58(10)	11
Prohibition Letter	0
Orders Issued	0
Certificate of Service	0
Compliance Review & Inspection	9
Site Visits Completed	83
Sites in Progress	1
Education & Outreach – Commercial, Industrial & Residential (DNAPL policy)	486
Source Water Protection Training Package	8



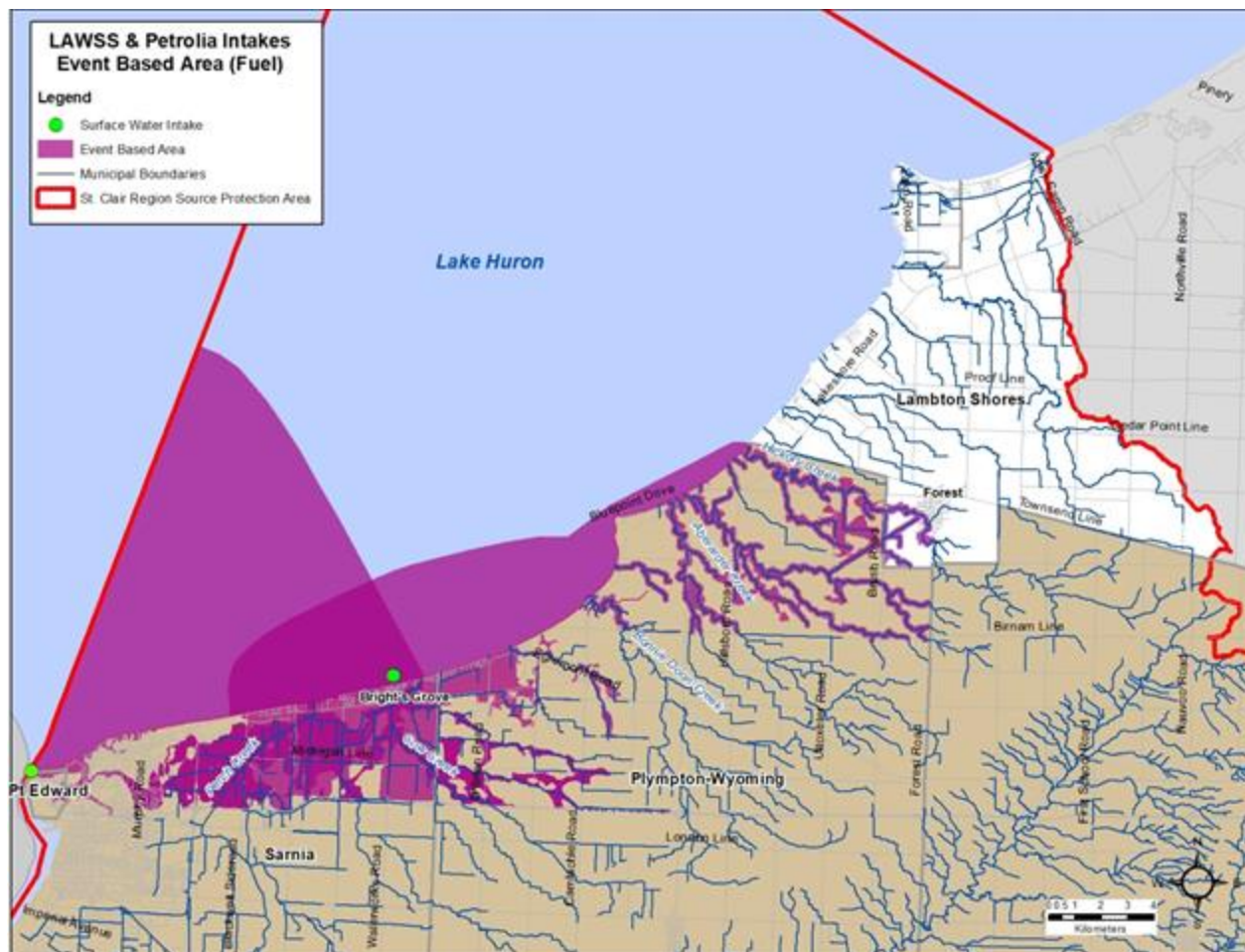
Municipality of Chatham-Kent

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	102
Sites Identified by Risk Management Official	5
Map Provided	41
Threat Verification Survey	46
Clearance - Septic Only (no other significant threats)	34
S.59 Screening & Inquires	8
Notice S.59 - 2(a) & 2(b)	7
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	6
Risk Management Plan S.58(5) & S.58(10)	7
Orders Issued	0
Certificate of Service	0
Compliance Review & Inspection	7
Site Visits Completed	61
Sites in Progress	4
Education & Outreach – Commercial, Industrial & Residential (DNAPL policy)	390
Source Water Protection Training Package	3



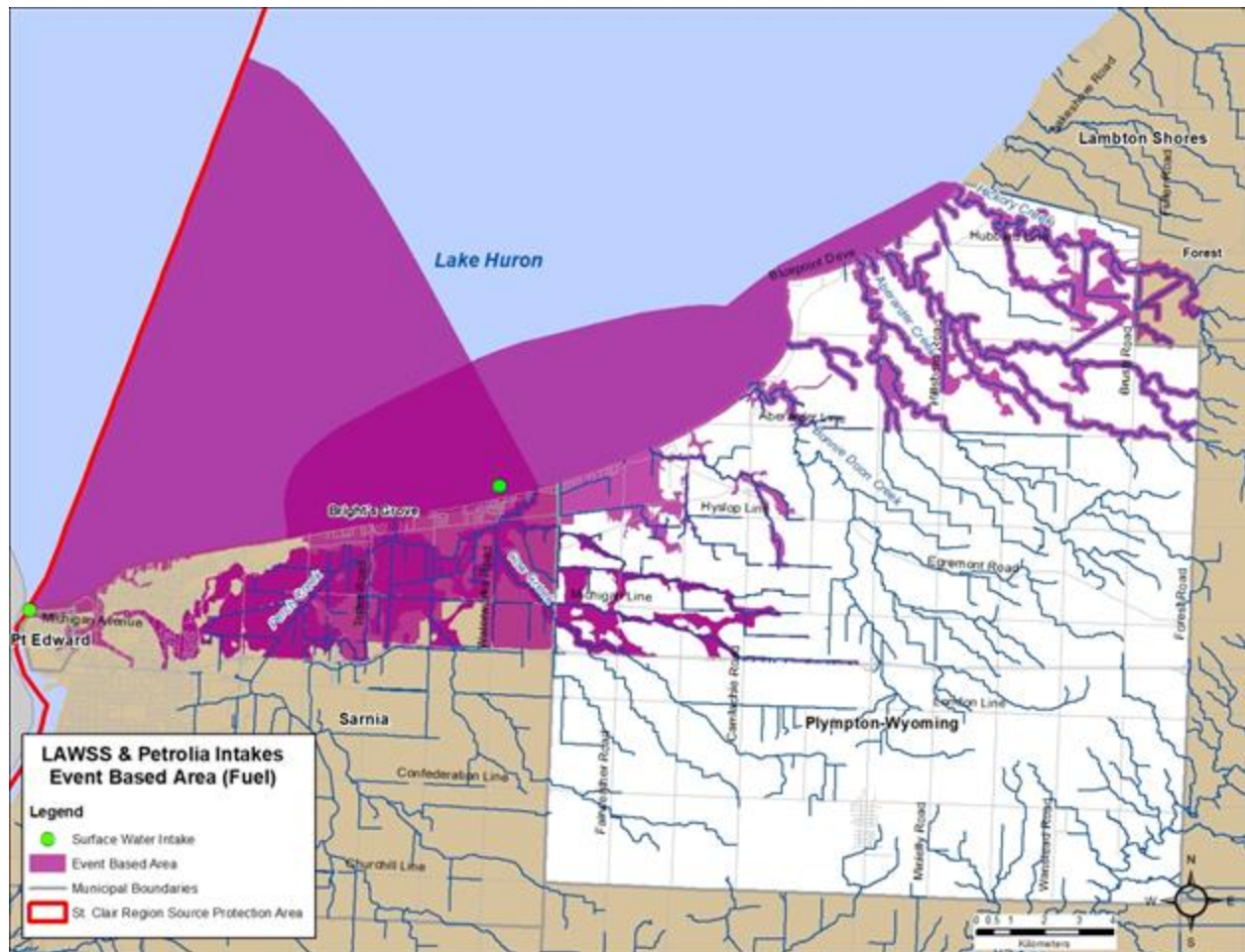
Municipality of Lambton Shores

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	1
Sites Identified by Risk Management Official	0
Map Provided	0
Threat Verification Survey	1
Clearance - Septic Only (no other significant threats)	0
Restricted Land Use S.59 Screening & Inquires	0
Restricted Land Use Notice S.59 - 2(a) & 2(b)	0
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	0
Risk Management Plan S.58(5) & S.58(10)	1
Prohibition Letters	0
Orders Issued	0
Certificate of Service	0
Compliance Review & Inspection	1
Site Visits Completed	3
Sites in Progress	0
Education & Outreach – Commercial, Industrial & Residential (DNAPL policy)	0
Source Water Protection Training Package	1



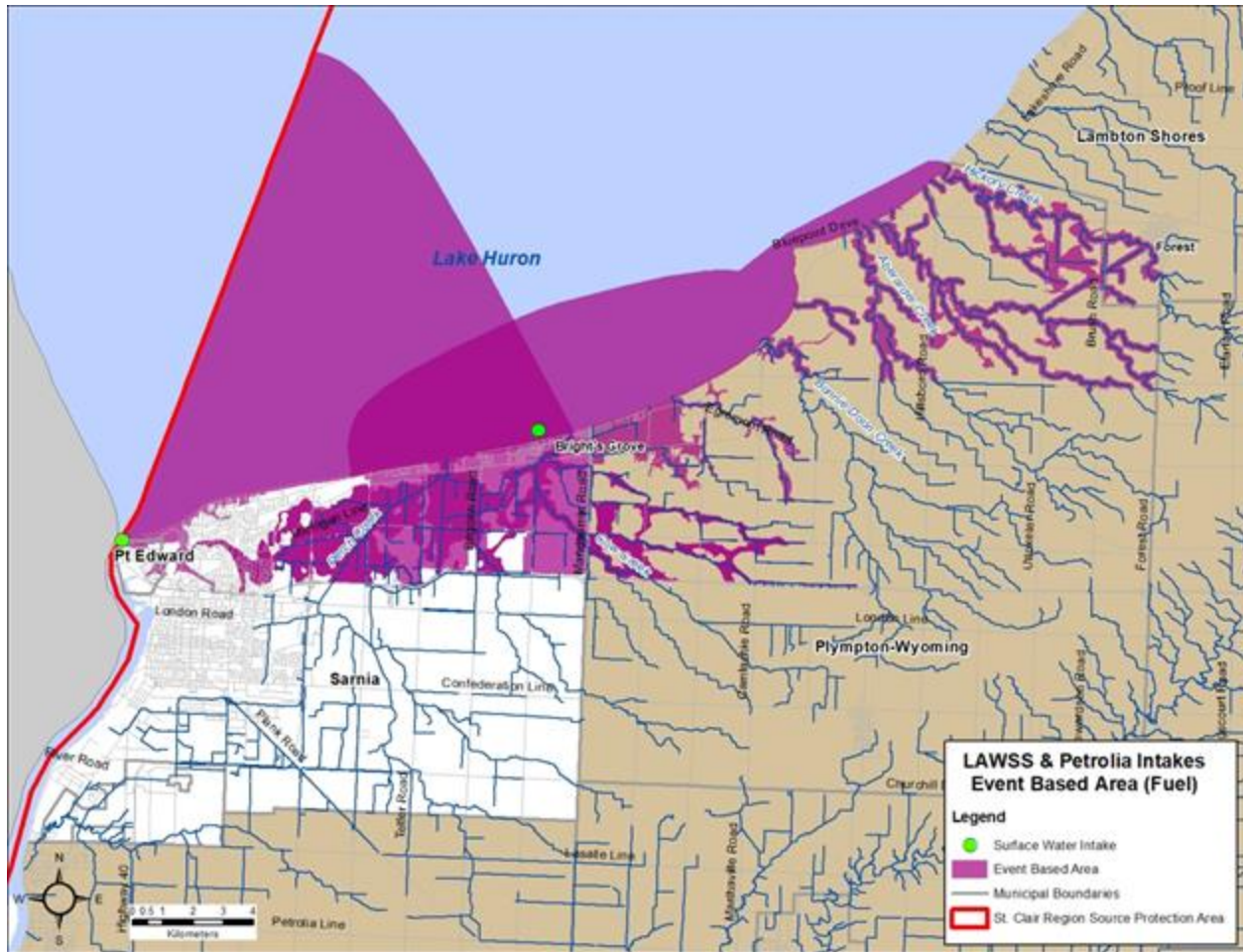
Municipality of Plympton-Wyoming

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	1
Sites Identified by Risk Management Official	0
Map Provided	1
Threat Verification Survey	1
Clearance - Septic Only (no other significant threats)	0
Restricted Land Use S.59 Screening & Inquires	3
Restricted Land Use Notice S.59 - 2(a) & 2(b)	1
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	0
Risk Management Plan S.58(5) & S.58(10)	0
Prohibition Letters	0
Orders Issued	0
Certificate of Service	0
Compliance Review & Inspection	1
Site Visits Completed	1
Sites in Progress	0
Education & Outreach – Commercial, Industrial & Residential (DNAPL policy)	0
Source Water Protection Training Package	0



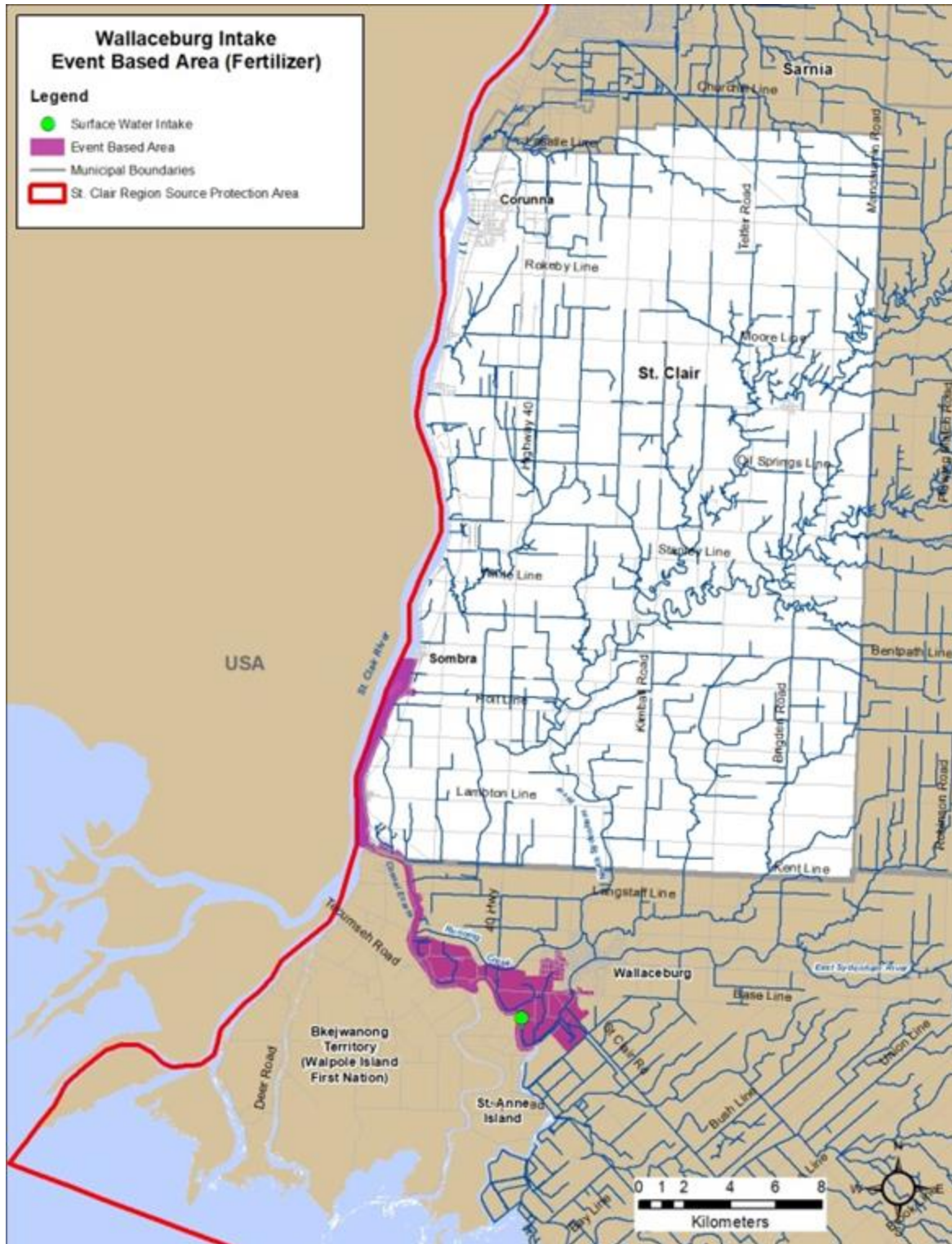
Municipality of Point Edward

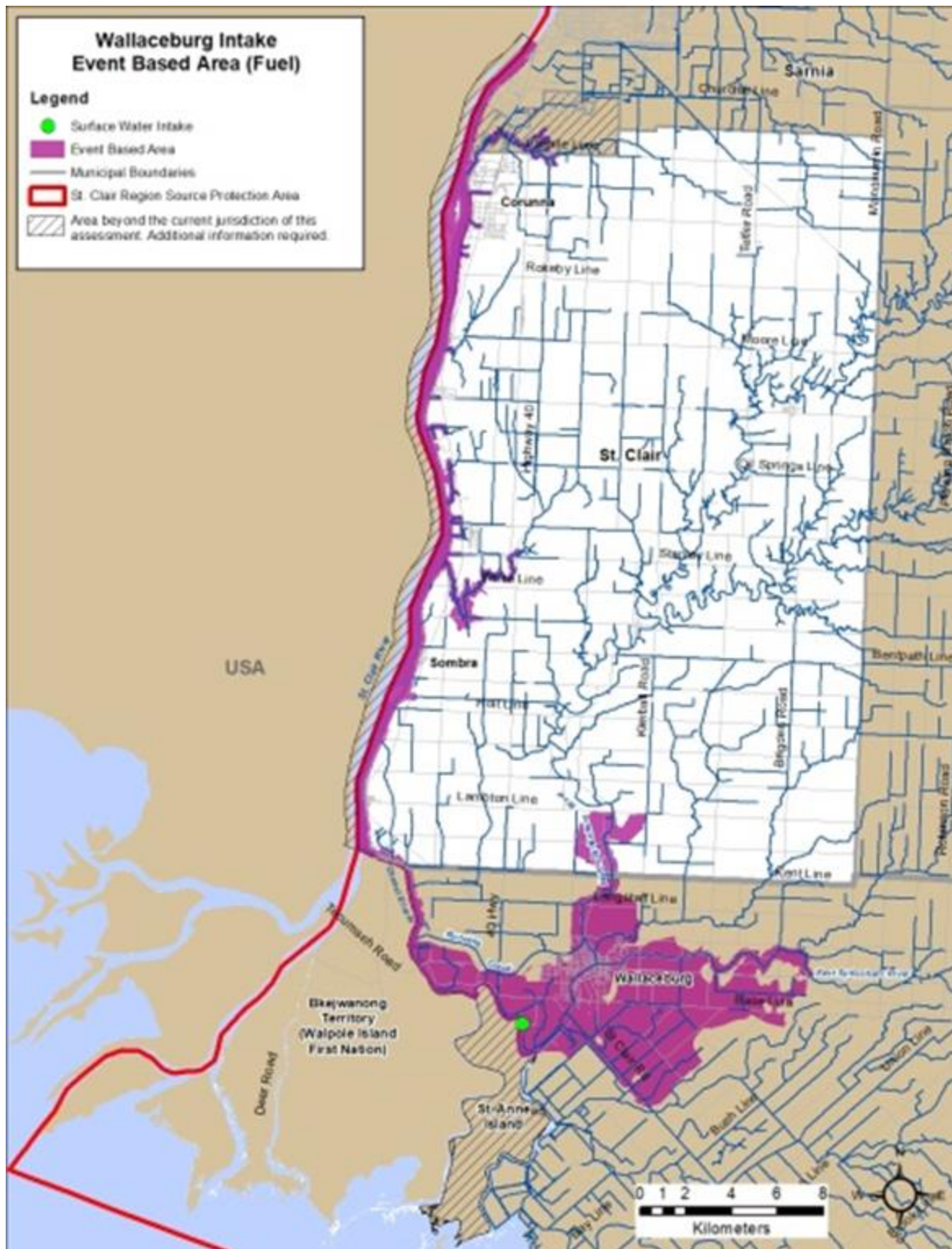
Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	0
Sites Identified by Risk Management Official	0
Map Provided	0
Threat Verification Survey	0
Clearance - Septic Only (no other significant threats)	0
Restricted Land Use S.59 Screening & Inquires	0
Restricted Land Use Notice S.59 - 2(a) & 2(b)	0
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	0
Risk Management Plan S.58(5) & S.58(10)	0
Orders Issued	0
Certificate of Service	0
Compliance Review & Inspection	0
Site Visits Completed	0
Sites in Progress	0
Education & Outreach – Commercial, Industrial & Residential (DNAPL policy)	0
Source Water Protection Training Package	0



Municipality of St. Clair

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	4
Sites Identified by Risk Management Official	0
Map Provided	2
Threat Verification Survey	5
Clearance - Septic Only (no other significant threats)	0
Restricted Land Use S.59 Screening & Inquires	3
Restricted Land Use Notice S.59 - 2(a) & 2(b)	2
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	0
Risk Management Plan S.58(5) & S.58(10)	2
Prohibition Letters	0
Orders Issued	0
Certificate of Service	0
Compliance Review & Inspection	2
Site Visits Completed	5
Sites in Progress	0
Education & Outreach – Commercial, Industrial & Residential (DNAPL policy)	0
Source Water Protection Training Package	0





Appendices

Appendix A: Glossary of Terms

TERM	DEFINITION
Assessment Report	<ul style="list-style-type: none"> A science-based document that forms the basis of the Source Protection Plan, by identifying vulnerable areas, assessing vulnerability identifying source water quality issues, identifying threats to the drinking water, and assessing the risk due to threats A requirement of the Clean Water Act, 2006 whose contents are set out in the Act, its regulations and technical rules.
Clearance Letters	<ul style="list-style-type: none"> Letter verifies that at the time of issuance, none of the prescribed threat activities were occurring on the property under circumstances that required a risk management plan.
Dense Non-Aqueous Phase Liquids (DNAPL)	<ul style="list-style-type: none"> Chemicals that are heavier than water, including petroleum products and chlorinated solvents (such as dichloromethane, trichloromethane), which when released into the ground, cause severe adverse effects in groundwater.
Drinking Water Threat	<ul style="list-style-type: none"> Means an activity or condition that adversely affects or has the potential to adversely affect the quality or quantity of any water that is or may be used as a source of drinking water, and includes an activity or condition that is prescribed by the regulations as a drinking water threat (Clean Water Act, 2006)
Event Based Area	<ul style="list-style-type: none"> In the Thames-Sydenham and Region, Event Based Areas are the areas within the Intake Protection Zones where event-based modelling has demonstrated that a spill can reach the intake at a concentration which would deteriorate the water for the purposes of drinking. Event-based modelling involved the use of specific event which was not to exceed an extreme event as defined by the Technical Rules Each EBA is associated with a specific contaminant, and quantity The spills modelled may be the result of the local threat activity (transportation) or it may be the result of a similar prescribed drinking water threat (storage or handling). Within the EBA these activities are identified as Significant Drinking Water Threat under the circumstance (volumes) modelled.
Intake Protection Zone	<ul style="list-style-type: none"> Refers to a surface water intake protection zone Surface water intake protection zone means an area that is related to a surface water intake and within which it is desirable to regulate or monitor drinking water threats (General Regulation 287/07)
Prescribed Instrument	<ul style="list-style-type: none"> Prescribed Instruments (PI) are issued by the Province through various ministries to set out terms and conditions that are designed to protect the environment and human health.

	<ul style="list-style-type: none"> PI policies are intended to reduce risks to municipal drinking water sources by managing or prohibiting those risks associated with an activity that has been identified as a drinking water threat in the Assessment Report.
Prohibition Section 57	<ul style="list-style-type: none"> This provision enables policies in the Source Protection Plans to prevent activities identified as existing or future significant drinking water threats from occurring within designated portions of intake protection zones and/or wellhead protection areas (Clean Water Act, 2006)
Restricted Land-Use Section 59	<ul style="list-style-type: none"> This tool is used to flag specific land uses in a given area that are or may be associated with the activities that are prohibited under section 57 of the Clean Water Act or that require a risk management plan under section 58 of the Clean Water Act (Clean Water Act, 2006)
Risk Management Official	<ul style="list-style-type: none"> Means the risk management official appointed under Part IV of the Clean Water Act, 2006 (Clean Water Act, 2006)
Risk Management Plan Section 58	<ul style="list-style-type: none"> Means a plan for reducing a risk prepared in accordance with the regulations and the rules of the Clean Water Act, 2006 (Clean Water Act, 2006)
Significant Drinking Water Threat	<ul style="list-style-type: none"> Significant drinking water threat means a drinking water threat that, according to a risk assessment, poses or has the potential to pose a significant risk (Clean Water Act, 2006)
Source Protection Plan	<ul style="list-style-type: none"> Means a drinking water source protection plan prepared under the Clean Water Act (Clean Water Act, 2006) Contains policies to reduce the threats (identified in the Assessment Report) to drinking water sources
Vulnerability area	<ul style="list-style-type: none"> Intake Protection Zone, Wellhead Protection Area, Highly Vulnerable Aquifer and Significant Groundwater Recharge Areas (Clean Water Act, 2006)
Wellhead Protection Area	<ul style="list-style-type: none"> Means an area that is related to a wellhead and within which it is desirable to regulate or monitor drinking water threats (General Regulation 287/07) One of the four vulnerable areas to be delineated under the Clean Water Act, comprised of WHPA-A, WHPA-B, WHPA-C, WHPA-D, and in certain cases, may also be comprised of WHPA-E and WHPA-F

Appendix B: Education & Outreach

Events - New & Upcoming

Doors Open - St. Marys

Showcasing Drinking Water Source Protection at Doors Open St. Marys

On September 28, St. Marys residents and visitors had a unique opportunity during Doors Open to explore the town's many historic buildings. Some of these buildings are rarely open to the public, including the Waterworks Building, erected in 1899 next to Trout Creek.



The St. Marys Waterworks Building was built in 1899. The reservoir and booster station were added to the site in 2018 (below)



St. Marys is well known for its interesting limestone architecture, and the Waterworks Building is no exception. The Town has preserved much of the building's original interior features, including a stained glass window, wainscoting, wood plank ceiling, and lighting fixtures. In 2018, a new reservoir pumping station was added to the site, replicating the architecture of the original Waterworks Building and preserving the site's historic integrity.

During Doors Open, nearly 250 people toured the Waterworks Building to learn about the site's historic significance as well as the Town's efforts to provide clean, safe drinking water. The event was a great opportunity to showcase the multi-barrier approach to protecting the community's drinking water. It all starts with protecting water at its source. In this case, that means protecting the landscape that feeds the town's three groundwater wells, which are directly influenced by surface water due to the area's fractured bedrock. That's where the UTRCA comes in. The July 2000 Walkerton water crisis was the worst public health disaster involving municipal water in Canada, and led to the passing of the provincial Clean Water Act (CWA). In 2015, the Town of St. Marys delegated to the UTRCA the authority to provide drinking water risk management services on their behalf.

When a property is in an area where certain activities could affect municipal drinking water sources, UTRCA Risk Management Officials work with the landowners/ renters to ensure compliance with policies in the CWA. These policies may require the development of a legally binding risk management plan with measures to protect sources of drinking water, and/or the prohibition of certain activities. Risk Management Inspectors ensure ongoing compliance.

Events like Doors Open are a great opportunity to showcase local hidden treasures as well as discover more about programs and services that support a thriving community. We look forward to partnering with the Town of St. Marys in future events.

Contact: [Katie Ebel](#), Source Protection Policy & Risk Management Advisor



The UTRCA is pleased to partner with the Town of St. Marys and the Ontario Clean Water Agency to highlight work that keeps the community's drinking water safe.

Newcomers' Coffee Meet & Greet - St. Marys



The *Friends of the Library* is a charitable organization whose purpose is to support the vision of the St. Marys Public Library by raising funds to support special library projects, assisting with library programs and promoting public recognition of the resources available through the library. One of the services they offer is the Newcomers' Coffee Meet & Greet which gathers once a month.

Speakers are often invited to share local information with new residents of the Town. Recently, Katie Ebel, one of the Risk Management Officials / Inspectors delegated by the Town of St. Marys was invited to speak to the group about local drinking water systems, what role risk management plays and what residents can do to protect their drinking water sources. Members and guests were very engaged and empowered to be good stewards of their local drinking water supply. Source water protection communication products were distributed and the organization will be including source water protection information in future newcomer welcome packages.




[*Friends of the Library*](#)

[*Friends of St. Marys Public Library - Home*](#)

World Water Day – Stratford

***DUE TO COVID-19, WORLD WATER DAY HAS BEEN POSTPONED INDEFINITELY**



**WORLD
WATER
DAY**
March 23, 2020

To find out, join us as we celebrate
World Water Day on March 23, 2020
and visit the City of Stratford's water facilities!

To learn more about World Water day, visit www.WorldWaterDay.org

Brought to you in partnership by City of Stratford's Environmental Services and Upper Thames River Conservation Authority's Drinking Water Risk Management Services.



If you require this document in an alternate format, please contact
Katie Ebel, Upper Thames River Conservation Authority, rms@thamesriver.on.ca or call 519-451-2800 ext. 294.

1. Tours of Romeo Street Pumping Station (Water Supply)
39 Romeo Street South
Tours at 12 pm, 1 pm, 2 pm, 3 pm

2. Tours of Water Pollution Control Plant (Wastewater Treatment)
701 West Gore Street
Tours at 12 pm, 1 pm, 2 pm, 3 pm

3. Open House at Vivian Street Pumping Station (Wastewater Collection)
362 Romeo Street North
Open House 12 pm – 3 pm

4. Open House at Forman Water Tower (Water Distribution)
430 Forman Avenue
Open House 12 pm – 3 pm

Children's Water Festival - Perth

***DUE TO COVID-19, WORLD WATER DAY HAS BEEN POSTPONED INDEFINITELY**



Children's Water Festival to be hosted at Wildwood Conservation Area



This will be the first ever Children's Water Festival to be hosted in Perth County. The Children's Water Festival is a fun and educational event for students in grades 4 & 5 to learn about the importance of water in their daily lives.

Risk management staff recognized a great opportunity to expand on the current dense non-aqueous phase liquid education and outreach program and reached out to the festival's Coordinator to develop a station dedicated to source water protection. With the full support of the organizing committee and the generosity of TD Friends of the Environment Foundation (TD FEF), funding was secured to move forward.

Students will learn about sources of drinking water (ground & surface) and Ontario's multi-barrier approach to protect them. They will also have the opportunity to discuss and learn how their day-to-day actions play a vital role. Through experimentation, students will discover why proper handling, storing and disposal of common household hazardous wastes is a critical part of source water protection.

Maintaining the quality and quantity of our groundwater and surface water is vital for the future development of our communities and for the health and enjoyment of the residents. Educating youth about water and the environment is the perfect way to start doing this.

Previous festivals have been held in London (2007, 2010, 2013, 2016, 2019), St. Thomas (2008, 2011, 2014, 2017) and Woodstock (2001, 2009, 2012, 2015, 2018).

The Children's Water Festivals are fully fundraised each year and have relied both on generous volunteer and financial support from the community.

To find out more, visit: www.childrenswaterfestival.ca

Water is Life Forum - Hosted in Stratford

***DUE TO COVID-19, WORLD WATER DAY HAS BEEN POSTPONED INDEFINITELY**



WATER FORUM

Wednesday April 22, 2020 @ 4 PM-9 PM
Rotary Complex- 353 McCarthy Road
Stratford, Ontario

AGENDA

4:00 - 9:00 PM

EXHIBITS, EDUCATION STATIONS &
CONVERSATION ZONES

7:00 PM

KEYNOTE SPEAKER: KIM WHEATLEY

**PLEASE NOTE THAT THIS IS A NO SALES
EVENT AND INSTEAD FOCUSES ON THE FREE
SHARING OF IDEAS INFORMATION AND
EDUCATION.*

FREE ADMISSION!

*Bring your own reusable water
bottle to take advantage of the
fill stations on-site!*

For More Information:

Facebook: Water is Life- Stratford Water Forum

Email: WaterIsLifeForum@gmail.com

Phone: 519-271-1142

Keynote: KIM WHEATLEY

"Shkoden Neegaan Waawaaskonen"

Anishinaabe Cultural Consultant



Kim is an Anishinaabe (Ojibway) band member of Shawanaga First Nation Reserve located in the Georgian Bay region of Ontario. She is Turtle Clan and carries the spirit name "Shkoden Neegaan Waawaaskonen" which translates to "Head or Leader of the Fireflower."

Kim has been a Water Walker & water protector for over a decade. Today she continues to champion water awareness from a cultural perspective through water talks in schools, with special interest groups and as an Indigenous cultural advisor.

*Our mission is to demonstrate the importance
of water in the natural environment for
people of Stratford and the surrounding area.
Our emphasis is on education
and non-partisan action.*

**SOUP
SURREAL**

Soup Surreal will be on site and
food will be available from
4 PM - 7 PM for those who would
like Soup and bread!

*CASH ONLY

Communication Products

Source Water Protection Roll-up Banners

These banners were created to support source water protection education and outreach initiatives in our participating municipalities and associated events. Each month they are rotated to a new municipality with flyers and magnets promoting the importance of drinking water source protection and how residents can do their part to ensure safe, plentiful drinking water in their community.

Risk Management Services	Source Water Protection – General
<div data-bbox="305 590 683 680">  <p>THAMES-SYDENHAM AND REGION SOURCE PROTECTION</p> </div> <div data-bbox="261 716 721 739"> <p>Protecting our communities' sources of drinking water with a multi-barrier approach.</p> </div> <div data-bbox="272 758 578 840"> <p>HAVE YOU SEEN THIS DRINKING WATER PROTECTION ZONE SIGN?</p> </div> <div data-bbox="272 846 583 951"> <p>These signs are appearing across Ontario to raise awareness about the vulnerability of our municipal drinking water sources. Local and provincial governments are placing these signs along roadways in areas where a pollution spill could affect our drinking water sources.</p> </div> <div data-bbox="626 768 699 894">  </div> <div data-bbox="253 1020 727 1465">  </div> <div data-bbox="282 1514 688 1581"> <p>For more information visit www.sourcewaterprotection.on.ca</p> </div> <div data-bbox="277 1606 709 1654">  </div>	<div data-bbox="922 604 1341 659"> <p>DRINKING WATER SOURCE PROTECTION RISK MANAGEMENT SERVICES</p> </div> <div data-bbox="935 657 1266 682"> <p>Working together to protect drinking water sources</p> </div> <div data-bbox="909 684 1341 707"> <p>THAMES-SYDENHAM AND REGION SOURCE PROTECTION</p> </div> <div data-bbox="922 720 1325 749"> <p>www.sourcewaterprotection.on.ca</p> </div> <div data-bbox="922 756 1330 816"> <p>PROTECTING DRINKING WATER SOURCES BY MANAGING RISKS</p> </div> <div data-bbox="922 819 1294 884"> <p>When a property is in an area where certain activities could affect municipal drinking water sources, Risk Management Officials work with the landowners/renters to ensure compliance with policies in the Clean Water Act (CWA Part IV).</p> </div> <div data-bbox="922 890 1284 938"> <p>These CWA policies may require the development of a legally binding risk management plan, with measures to protect sources of drinking water, and/or the prohibition of certain activities.</p> </div> <div data-bbox="922 945 1325 995"> <p>Risk Management Inspectors ensure ongoing compliance. An inspector may take samples and measurements, run tests, copy documents, and issue an enforcement order if compliance is not met.</p> </div> <div data-bbox="889 1062 1354 1507">  </div> <div data-bbox="909 1520 1071 1680">  </div> <div data-bbox="1107 1541 1325 1572"> <p>VISIT AND DISCOVER</p> </div> <div data-bbox="1107 1575 1346 1602"> <p>www.protectingourwater.ca</p> </div> <div data-bbox="1091 1602 1346 1635"> <p>Information about your community's sources of drinking water and what you can do to protect them.</p> </div> <div data-bbox="1097 1646 1325 1671">  </div>

Minor Spills Response Guide

This product was developed to support risk management measure compliance for those risk management plans that require a spills action plan; this poster offers a quick reference guide in the event of a spill. Additionally, posters will be available for distribution to businesses operating in low-moderate threat areas as an opportunity for education and outreach.



DRINKING WATER
SOURCE PROTECTION
Our Actions Matter

Business Name:

Phone:

Site Address:

Onsite Emergency Contact

Primary (Name/Title):

Phone Number:

Secondary (Name/Title):

Phone Number:

Protect local sources of municipal drinking water and human health

SPILLS RESPONSE GUIDE

1. BE PREPARED

- Evaluate the types of materials and ensure they are clearly labelled
- Minimise volumes and ensure proper handling and storage. Keep the area tidy
- Ensure availability of Safety Data Sheets (SDS)
- Ensure you have the necessary spill response equipment and Personal Protective Equipment (PPE) available in the right place(s)

2. BE SAFE

- If it's an emergency, evacuate the area and **CALL 911**
- Identify the spill. What is it?
- Wear appropriate PPE

3. STOP THE SOURCE

- Locate the source of the spill and stop it
- Close valves or taps, rotate punctured drums and plug leaks

4. PROTECT THE STORMWATER

- As necessary, dike the spill with absorbent socks. Lay absorbent pads and/or granular absorbent material on the spill
- Direct the spill to a location where it will not create a fire hazard or any risk to the health or safety of individuals or the natural environment - away from floor drains, storm sewers and catch basins

5. NOTIFY

- Tell you supervisor, site foreman or manager
- Alert emergency services as required
- If necessary, contact the SPILLS ACTION CENTRE (available 24/7) to report the spill:

Tel: 416-325-3000

Toll-free: 1-800-268-6060

Toll-free TTY: 1-855-889-5775

Be sure to communicate that the spill is located within a _____ time of travel to a municipal well.

6. CLEAN UP

- Where necessary, neutralize hazardous substances
- Use absorbents to clean up any spilled liquids and place in suitable container or bag
- Clean all residues without contaminating the storm water system or soil

7. DISPOSE

- Use a responsible waste disposal contractor to dispose of contaminated material, absorbents, soil and PPE

8. RESTOCK & REVIEW

- Immediately replace all used absorbents and PPE
- Assess the cause and take necessary steps to prevent reoccurrence
- Review how you handled the spill and determine if more training is needed
- Complete required documentation and communicate lessons learned
- As necessary, follow-up with your local Drinking Water Source Protection Risk Management Office to review details of the spill and assess the prevention measures to determine if they can be improved

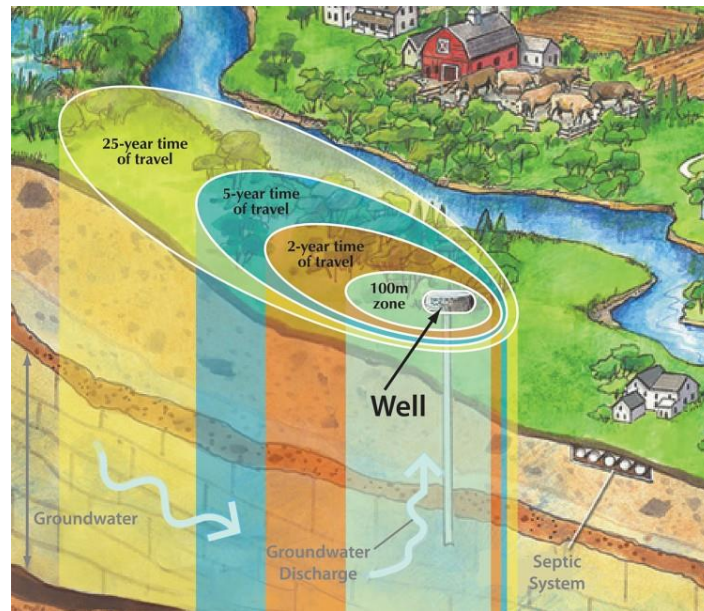
NOTICE: This document provides general information on discharges and spills, but is not to be relied upon as advice on these matters. Users of this GUIDE should satisfy themselves with respect to their full obligations under environmental and health and safety legislation, engaging technical and legal experts as necessary. The issuer is not responsible for any damages whatsoever arising from the information in this document or its interpretation.

Social Media Campaigns

Communication Product	2019 Stats
Thames - Sydenham & Region Drinking Water Source Protection (UTRCA YouTube) https://youtu.be/YH0tWNHnY-A	182 views
Drinking Water Risk Management Training Video (UTRCA YouTube) https://youtu.be/koo0880FJCE	244 views
#WaterWednesday Campaign Posts (UTRCA Facebook & Instagram)	4,358 people reached
#WaterWednesday Campaign Posts (SCRCA Facebook & Instagram)	552 people reached
Drinking Water Source Protection (1:14)(English) (Conservation Ontario YouTube) https://youtu.be/nVrXvD5Eupw	39,000 views
Drinking Water Source Protection (0:30)(English) (Conservation Ontario YouTube) https://youtu.be/5kvjkipig3T4	534 views

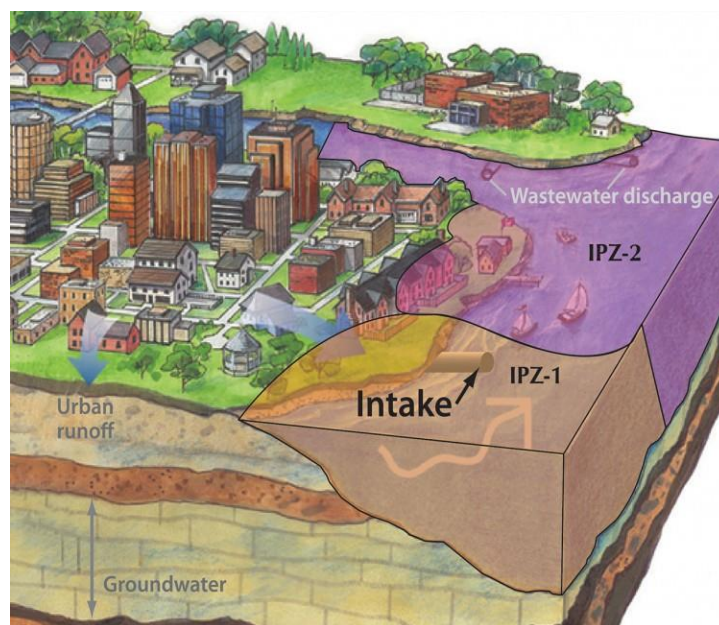
Appendix C: Wellhead Protection Area

Wellhead Protection Areas (WHPAs): areas where water travels through the ground to a municipal well.



Appendix D: Intake Protection Zones

Intake Protection Zones (IPZs): areas around municipal surface water intakes.



Appendix E: Helpful Links

Content	Link
Thames - Sydenham & Region Drinking Water Source Protection (Official Website)	https://www.sourcewaterprotection.on.ca
Protecting Our Water (website tool connecting residents with their local hazardous waste depot)	https://www.protectingourwater.ca/
Thames - Sydenham & Region Drinking Water Source Protection (YouTube)	https://youtu.be/YH0tWNHnY-A
Drinking Water Risk Management Training Video (YouTube)	https://youtu.be/koo0880FJCE
Interactive Source Water Protection Mapping Tool	https://maps.thamesriver.on.ca/gvh/?viewer=tsrassessmentreport
Table of Drinking Water Threats & Circumstances	https://www.ontario.ca/page/tables-drinking-water-threats

Appendix F: Risk Management Service Financial Statement

Upper Thames River Conservation Authority

Program Status

For The Period Ending December 31, 2019

Risk Management Services

Annual Report

	Budget	Q1	Q2	Q3	Q4	Total Year
Revenues						
All Participants	197,927	85,381	56,274	-	79,696	221,351
Operating Expenditures						
Staff Support Costs						
Internal Staffing	131,287	42,003	28,627	30,991	21,798	123,419
Purchased Services						
RMO Staff - SCRA	10,000	6,494	-	12,988	6,494	25,976
Printing	-	-	-	-	-	-
Office Supplies	-	-	-	-	-	-
Meeting Costs	-	-	(1,058)	1,319	-	261
Allocated Costs						
Occupancy	10,089	2,596	2,400	2,194	3,034	10,224
IS/IT	10,905	2,579	2,719	2,959	2,804	11,061
Fleet Services	6,909	1,538	1,493	1,837	1,403	6,271
Administration	11,071	3,435	3,614	2,463	2,357	11,869
Finance	9,494	2,732	2,356	1,902	(1,255)	5,735
Marketing	10,095	2,749	2,327	2,405	2,060	9,541
Travel & Expenses						
Staff Expenses - Travel	500	1,557	-	3,019	1,519	6,095
Staff Expenses - Training	1,000	-	-	-	-	-
Staff Expenses - General	1,500	363	232	278	987	1,860
Data Acquisition/Management						
IM Software (LSWIMS)	-	-	242	3,110	5,476	8,828
Insurance	1,500	-	-	-	-	-
Total Operating Expenditures	204,350	66,046	42,952	65,464	46,677	221,139
Net Program Balance	(6,423)	19,335	13,322	(65,464)	33,019	212

AMENDMENT NO.1
SOURCE PROTECTION JOINT RISK MANAGEMENT SERVICES AGREEMENT

THIS AMENDMENT NO.1 made effective the first day of July, 2020.

BETWEEN:

Upper Thames River Conservation Authority,
(hereinafter called “the Authority”)

OF THE FIRST PART

- and -

Lambton Area Water Supply System,

OF THE SECOND PART

(hereinafter called “LAWSS”)

WHEREAS the Parties entered into an agreement dated as of January 1, 2019 for the purpose of developing and implementing a joint program for the enforcement and jurisdictional rights under Part IV of the *Clean Water Act* (the “**Agreement**”).

And Whereas pursuant to Section 6.04 of the Agreement, amendments may only be made by mutual agreement;

NOW THEREFORE in consideration of the contractual relationship between the Authority and LAWSS for other good and valuable consideration, the receipt and sufficiency of which is hereby expressly acknowledged by both Parties, the Authority and LAWSS hereby acknowledge, agree and undertake as follows:

1. This Amendment No. 1 shall have an effective date of July 1, 2020 and shall continue for a period of 6 months, ending the 31st day of December 2020.
2. All other terms and conditions of the Agreement shall remain in full force and effect unchanged and unmodified except in accordance with this Amendment No. 1.
3. The Agreement is amended as follows:
 - a. The Corporation of the City of Sarnia is added as a municipality for which LAWSS is entering this Joint Services Agreement on behalf of.
 - b. Schedule “B” (Notification Contacts) and Schedule “D” (Payment Schedule), as set out in the Agreement are deleted in their entirety and replaced with the following:

Schedule B – Joint Risk Management Services Agreement

Notification Contacts

	Official Administrative Contact	Technical Contact
Upper Thames River Conservation Authority	Attention: General Manager/Secretary Treasurer Ian Wilcox 1425 Clarke Rd, London, ON, N5V 5B9 Fax 519-451-1188 Phone 519 451-2800x259 Email wilcoxi@thamesriver.on.ca	Attention Source Protection Coordinator Jenna Allain 1425 Clarke Rd, London, ON, N5V 5B9 Fax 519-451-1188 Phone 519 451-2800x223 Email fletcher@thamesriver.on.ca
The Corporation of the City of London	Attention: Director - Water and Wastewater, Scott Mathers 300 Dufferin Avenue PO BOX 5035 London ON N6A 4L9 Phone 519-661-2489 Ext. 4430 Email smathers@london.ca	Attention: Urban Watershed Program Manager, Patrick Donnelly 300 Dufferin Avenue PO BOX 5035 London ON N6A 4L9 Fax 519-661-2354 Phone 519-661-2500 Ext. 5593 Email pdonnelly@london.ca
The Corporation of the City of Stratford	Attention: City Clerk Joan Thomson 1 Wellington St PO Box 818 Stratford, ON, N5A 6W1 Fax 519-273-5041 Phone 519-271-0250 ext 237 Email jthomson@stratfordcanada.ca	Attention: Manager of Environmental Services, Infrastructure and Development Mike Mortimer 82 Erie Street, 3 rd Floor Stratford, ON, N5A 2M4 Fax 519-271-1427 Phone 519-271-0250 ext 315 Email mmortimer@stratfordcanada.ca
The Corporation of the Township of Perth East	Attention: Chief Administrative Officer Glenn Schwendinger P.O Box 455 25 Mill St East Milverton, ON, N0K 1M0 Fax 519-595-2801 Phone 519-595-2800 ext 232 Email gschwendinger@pertheast.ca	Attention: Manager of Public Works and Parks Wes Kuepfer P.O Box 455 25 Mill St East Milverton, ON, N0K 1M0 Fax 519-595-2801 Phone 519-595-2800 ext 234 Email wkuepfer@pertheast.ca
The Corporation of the Municipality of West Perth	Attention: CAO Jeff Brick 169 St. David St., P.O. Box 609 Mitchell, ON N0K 1N0 Fax: (519) 348-8935 Phone 519-348-8429 ext 225 Email: jbrick@westperth.com	Attention: CAO Jeff Brick 169 St. David St., P.O. Box 609 Mitchell, ON N0K 1N0 Fax: (519) 348-8935 Phone 519-348-8429 ext 225 Email: jbrick@westperth.com

	Official Administrative Contact	Technical Contact
The Corporation of the Town of St Marys	<p>Attention: CAO Brent Kittmer 175 Queen St East, P.O Box 998, St. Mary's, ON. N4X 1B6 Fax 519-284-3881 Phone 519-284-2340 ext 216 Email: bkittmer@town.stmarys.on.ca</p>	<p>Attention: Environmental Coordinator Dave Blake 408 James Street South, P.O. Box 998, St. Mary's, ON N4X 1B6 Phone: 519-284-2340 ext. 209 Fax: 519-284-0902 Email: dblake@town.stmarys.on.ca</p>
The Corporation of the Municipality of Chatham-Kent	<p>Attention: Chief Legal Officer John Norton <i>315 King Street West, P.O. Box 640, Chatham, Ontario, N7M 5K8</i> Fax 519-436-3204 Phone 519-360-1998 ext 3800 Email:john.norton@chatham-kent.ca</p>	<p>Attention: Director, Planning Services Bruce McAllister <i>315 King Street West, P.O. Box 640, Chatham, Ontario, N7M 5K8</i> Fax 519-436-3204 Phone 519-360-1998 ext 3042 Email:bruce.mcallister@chatham-kent.ca</p>

	Official Administrative Contact	Technical Contact
The Corporation of the Lambton Area Water Supply System on behalf of the Municipalities of Lambton Shores, Plympton-Wyoming, St. Clair and Point Edward	<p>Attention: LAWSS Water System Engineering Technologist Clinton Harper 1215 Fort St., Point Edward ON Phone: 519-344-7429 Email: Clinton.harper@lawss.org</p>	<p>Attention: LAWSS Water System Engineering Technologist Clinton Harper 1215 Fort St., Point Edward ON Phone: 519-344-7429 Email: Clinton.harper@lawss.org</p>
	<p>Attention: The Village of Point Edward Jim Burns 135 Kendall Street, Point Edward, ON, N7V 4G6 Phone: 519-337-3021 Email: jburns@villageofpointedward.com</p>	<p>Attention: The Village of Point Edward Jim Burns 135 Kendall Street, Point Edward, ON, N7V 4G6 Phone: 519-337-3021 Email: jburns@villageofpointedward.com</p>
	<p>Attention: The municipality of Lambton Shores Steve McAuley 7883 Amtelecom Parkway Forest, ON N0N 1J0 Phone: 519-243-1400 Email: smcauley@lambtonshores.ca</p>	<p>Attention: The municipality of Lambton Shores Steve McAuley 7883 Amtelecom Parkway Forest, ON N0N 1J0 Phone: 519-243-1400 Email: smcauley@lambtonshores.ca</p>
	<p>Attention: The Town of Plympton-Wyoming Sarah Baldwin 546 Niagara Street, Box 250, Wyoming, On, N0N 1T0 Phone: 519-845-3939 Email: sbaldwin@plympton-wyoming.ca</p>	<p>Attention: The Town of Plympton-Wyoming Sarah Baldwin 546 Niagara Street, Box 250, Wyoming, On, N0N 1T0 Phone: 519-845-3939 Email: sbaldwin@plympton-wyoming.ca</p>
	<p>Attention: St. Clair Township Barry Uitvlugt 1155 Emily Street Mooretown, ON, N0N 1M0 Phone: 519-867-2021 Email: buitvlugt@stclairtownship.ca</p>	<p>Attention: St. Clair Township Barry Uitvlugt 1155 Emily Street Mooretown, ON, N0N 1M0 Phone: 519-867-2021 Email: buitvlugt@stclairtownship.ca</p>
	<p>Attention: The City of Sarnia David Jackson 255 Christina St. North P.O. Box #3018 Sarnia, ON N7T 7N2 Email: david.jackson@sarnia.ca</p>	<p>Attention: The City of Sarnia David Jackson 255 Christina St. North P.O. Box #3018 Sarnia, ON N7T 7N2 Email: david.jackson@sarnia.ca</p>

Schedule D - Source Protection Part IV Enforcement Transfer Agreement

Payment Schedule

Lambton Area Water Supply Services

Payment	Due Date	Description	Payment Amount
1	June 1, 2019	Biannual program implementation payment	\$ 14,080
2	December 1, 2019	Biannual program implementation payment	\$ 14,080
3	June 1, 2020	Biannual program implementation payment	\$ 14,080
4	December 1, 2020	Biannual program implementation payment	\$ 24,580
2 year program costs			\$ 66,820

LAWSS Payment Schedule based on the following annual costs for each Municipality that LAWSS represents in the Agreement:

Municipality	Costs per Year
St Clair	\$7,440
Point Edward	\$6,800
Plympton Wyoming	\$6,960
Lambton Shores	\$6,960
Sarnia (2020 only)	\$10,500
TOTAL (2019)	\$28,160
TOTAL (2020)	\$38,660

IN WITNESS WHEREOF the parties hereto have executed this Agreement as of the day and year first written above.

UPPER THAMES RIVER CONSERVATION AUTHORITY

_____	_____
Chair	Date

_____	_____
General Manager/Secretary-Treasurer	Date

LAMBTON AREA WATER SUPPLY SYSTEM

_____	_____
Chair	Date

_____	_____
General Manager	Date

L