

Tri-County Water Board of Management Agenda

June 30, 2020, 7:00 p.m.

Electronic Participation Meeting via Zoom

Due to the COVID-19 Pandemic and Emergency Orders Issued by the Province of Ontario under the *Emergency Management & Civil Protection Act*, prohibiting gathering of more than 10 people, this meeting will be held electronically. Please contact the Clerk's Department if you require an alternate format or accessible communication support or wish to receive the link to the meeting, at 519-785-0560 or by email at clerk@westelgin.net.

Pages

1. **Call to Order**

2. **Adoption of Agenda**

Recommendation:

That Tri-County Water Board hereby adopts the Agenda for June 30, 2020 as presented.

3. **Disclosure of Pecuniary Interest**

4. **Minutes**

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Recommendation:

That minutes of the Tri-County Water Board meeting on January 28, 2020 be adopted as circulated and printed.

5. **Business Arising from Minutes**

6. Reports

- 6.1 Christine Scrimgeour, Scrimgeour & Company - Audited Financial Statements for the Year Ended December 31, 2019** 5

Recommendation:

That Tri County Water Board hereby receives and approves the 2019 Audited Financial Statements and the Independence Letter as presented.

- 6.2 Financial Statements As of May 31, 2020** 20

Recommendation:

That Tri-County Water Board receive the financial statements as of May 31, 2020 as presented.

- 6.3 OCWA Annual Summary Report for Tri-County Drinking Water System - Schedule 22 of O. Reg 170/03** 22

Recommendation:

That the Tri-County Water Board hereby receives the 2019 Annual Summary Report for Tri-County Drinking Water System - Schedule 22 of O.Reg 170/03

- 6.4 OCWA Annual Report for Tri-County Drinking Water System - Section 11 2019 Report** 30

Recommendation:

That Tri-County Water Board hereby by receives the 2019 Annual Summary Report for Tri-County Drinking Water System - Schedule 22 of O.Reg 170/03

- 6.5 OCWA - Tri- County Water Treatment Plant First Quarter Operations Report** 38

Recommendation:

That Tri-County Water Board hereby receives the First Quarter Operations Report for the Tri-County Drinking Water System from OCWA.

7. New Business

- 7.1 Verbal Discussion on Water Treatment Plant Lighting**

7.2 Revised Agreement

47

Recommendation:

That the Tri-County Water Board instruct the Chair and Staff to send out the revised Tri-County Water Board Agreement to all signing member municipalities with the recommendation that the agreement be amended as outlined.

7.3 Chair Position

In the January meeting we should have had an election for the position of Chair and Vice-Chair as per the procedural by-law.

8. Adjournment

Recommendation:

That the Tri-County Water Board hereby adjour at ____ to reconvene on _____ at 7:00 p.m. or at the Call of the Chair.

Tri-County Water Board of Management

Minutes

January 28, 2020, 7:00 p.m.

Council Chambers, West Elgin Municipal Building

Present:

Bob Purcell
Allan Mayhew
Angela Cammaert
Bonnie Rowe
Doug Bartlett
Duncan McPhail
Ken Loveland
Marigay Wilkins
Patricia Ann Corneil
Taraesa Tellier
Tim Sunderland
Richard Leatham

Staff Present:

Jill Belchamber-Glazier
Magda Badura
Dale Le Britton
Mike Taylor
Jana Nethercott

Regrets:

Duncan McPhail
Patricia Ann Corneil
Taraesa Tellier

1. Call to Order

Chair B. Purcell called the meeting to order at 7:02 p.m.

2. Adoption of Agenda

Resolution No. 2020-01

Moved: Marigay Wilkins

Seconded: Angela Cammaert

That Tri-County Water Board agenda for January 28, 2020 be adopted as amended by adding 7.2 Pump 4 High Lift Re-build.

Disposition: Carried

3. Disclosure of Pecuniary Interest

No disclosures

4. Minutes

Resolution No. 2020-02

Moved: Doug Bartlett

Seconded: Ken Loveland

That minutes of the Tri-County Water Board meeting on December 17, 2019 be adopted as circulated and printed.

Disposition: Carried

5. Business Arising from Minutes

5.1 Municipal Member Update - SWM and Newbury Agreement

Allan Mayhew stated that he regrets that they are still having difficulties coming to that agreement, due to the fact that Newbury wants more capacity which Southwest Middlesex doesn't feel that should be part of this agreement and their requested capacity is almost triple what they currently have. At this point we would be very lucky to reach an agreement in the next 48 hours. OCWA today has formulated a response and once Southwest Middlesex has a chance to review this it will be forwarded to Newbury. Negotiations are ongoing at this time, however Southwest Middlesex advises that there will be no more extensions to these negotiations. Southwest Middlesex Council has agreed to extend the negotiation deadline to January 31, 2020.

Chair Bob Purcell noted that any discussion regarding capacity can not be part of these negotiations as they are part of the Tri-County Agreement with individual Municipalities.

6. Financials

6.1 Financials as of December 31, 2020

Financials were presented by Magda Badura, CAO/Treasurer.

6.2 Capital Review

Resolution No. 2020-03

Moved: Bonnie Rowe

Seconded: Allan Mayhew

That the Tri-County Water Board accept the financial report as presented by Magda Badura.

Disposition: Carried

7. Staff Reports

7.1 Mike Taylor, OCWA - 2019 Fourth Quarter Drinking Water System Operations Report

Mike Taylor reported that there has been a health and safety issue at the plant in the low lift area due to third party company delivering to the plant, however this has been elevated corporately and being investigated. An update on this issue will be brought forward to the next meeting, with explanations.

Resolution No. 2020-04

Moved: Angela Cammaert

Seconded: Tim Sunderland

That Tri-County Water Board receives the report from Mike Taylor, Ontario Clean Water Agency regarding the 2019 Fourth Quarter Drinking Water System Operations Report.

Disposition: Carried

7. Staff Reports

7.2 Pump 4 High Lift Re-build

Pump 4 had the VFD installed in late summer and there were a number of issues discovered and OCWA rebuilt the motor and retested and still issues were discovered. The report indicates the bigger issues with pumps and the work has been completed and even upgraded with a coating to assist with friction protection and make it more efficient. The focus will be on using pump number four for the energy savings, while not allowing the other pumps to deteriorate from non use.

This year will be a year of data collecting for the potential to do this process to one of the other pumps in 2021.

7.3 Mike Taylor, OCWA - North Tank Inspection Report

The only immediate recommendation is for the fine screening mesh at the top of the tank is missing and needs to be replaced at a potential cost of \$5,000 to \$10,000 for external. Within the next 5 years a sealer needs to be applied to the interior structure of the tank to prevent corrosion, with an estimated cost of \$20,000 per tank and both tanks need to be done. In the next 5 years the nodes also need to be replaced, which could run approximately \$50,000. This company stated that a 40 year capital project projection should be completed and Mike believes he will request this in 2021.

8. New Business

Tim Sunderland requests a clean copy of the updated agreement.

9. Adjournment

Resolution No. 2020-05

Moved: Richard Leatham

Seconded: Ken Loveland

That the Tri-County Water Board adjourn at 7:53 p.m. to meet again on April 28, 2020 at 6:00 p.m. at the Tri-County Water Plant or at the call of the Chair.

Disposition: Carried

Bob Purcell, Chair

Jana Nethercott, Recording Secretary

**TRI COUNTY WATER BOARD
C/O MUNICIPALITY OF WEST ELGIN
22413 HOSKINS LINE
RODNEY, ONTARIO
N0L 2C0**

June 30, 2020

Scrimgeour & Company
Suite 1706, 148 Fullarton Street
London, Ontario
N6A 5P3

Dear Madame:

This representation letter is provided in connection with your audit of the financial statements (the “financial statements”) of Tri County Water Board for the year ended December 31, 2019, for the purpose of expressing an opinion as to whether the financial statements are presented fairly, in all material respects, in accordance with Canadian public sector accounting standards.

In making the representations outlined below, we took the time necessary to appropriately inform ourselves on the subject matter through inquiries of entity personnel with relevant knowledge and experience, and, where appropriate, by inspecting supporting documentation.

We confirm that (to the best of our knowledge and belief):

Financial statements

We have fulfilled our responsibilities as set out in the terms of the audit engagement dated December 31, 2019 for:

- Preparing and fairly presenting the financial statements in accordance with Canadian public sector accounting standards;
- Providing you with:
 1. Access to all information of which we are aware that is relevant to the preparation of the financial statements, such as:
 - a. Accounting records, supporting data and other relevant documentation.
 - b. Minutes of meetings or summaries of actions taken for which minutes have not yet been prepared, and
 - c. Information on any other matters, of which we are aware, that is relevant to the preparation of the financial statements;
 2. Additional information that you have requested from us for the purpose of the audit; and
 3. Unrestricted access to persons within the entity from whom you determine it necessary to obtain audit evidence.

- Ensuring that all transactions have been recorded in the accounting records and are reflected in the financial statements; and
- Designing and implementing such internal control as we determined is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error. We have also communicated to you any deficiencies in the design and implementation or the maintenance of internal control over financial reporting of which management is aware.

Fraud and Non-Compliance

We have disclosed to you:

- All of our knowledge in relation to actual, alleged or suspected fraud affecting the entity's financial statements involving:
 1. Management
 2. Employees who have significant roles in internal control; or
 3. Others where fraud could have a material effect on the financial statements;
- All of our knowledge in relation to allegations of fraud or suspected fraud communicated by employees, former employees, analysts, regulators or others;
- All known instances of non-compliance or suspected non-compliance with laws and regulations, including all aspects of contractual agreements that should be considered when preparing the financial statements; and
- All known, actual, or possible litigation and claims that should be considered when preparing the financial statements; and
- The results of our risk assessments regarding possible fraud or error in the financial statements.

Related Parties

We confirm that there were no related-party relationships or transactions that occurred during the period, other than as disclosed in the financial statements.

Estimates

We acknowledge our responsibility for determining the accounting estimates required for the preparation of the financial statements in accordance with Canadian public sector accounting standards. Those estimates reflect our judgement based on our knowledge and experience of past and current events, and on our assumptions about conditions we expect to exist and courses of action we expect to take. We confirm that the significant assumptions and measurement methods used by us in marking accounting estimates, including those measured at fair value, are reasonable.

Subsequent Events

All events subsequent to the date of the financial statements and for which Canadian public sector accounting standards requires adjustment or disclosure have been adjusted or disclosed.

Commitments and Contingencies

There are no commitments, contingent liabilities/assets or guarantees (written or oral) that should be disclosed in the financial statements, other than as disclosed in the financial statements. This includes liabilities arising from contract terms, illegal acts or possible illegal acts, and environmental matters that would have an impact on the financial statements.

Adjustments

We have reviewed, approved and recorded all of your proposed adjustments, as attached, to our accounting records. This includes journal entries, changes to account coding, classification of certain transactions and preparation of, or changes to, certain accounting records.

Misstatements

The effects of uncorrected misstatements are immaterial, individually and in aggregate, to the financial statements as a whole. There are no uncorrected misstatements.

Accounting Policies

All significant accounting policies are disclosed in the financial statements and are consistent with those used in the previous period.

Future Plans

We have no plans or intentions that may materially affect the carrying value or classification of assets and liabilities reflected in the financial statements.

Yours very truly,

Name

Title

Name

Title

Tri-County Water Board

Year End: December 31, 2019

Adjusting journal entries

Date: 1/01/19 To 12/31/19

Prepared by	Reviewed by
CAS 6/16/20	CAS 6/16/20

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Number	Date	Name	Account No	Reference	Annotation	Debit	Credit	Recurrence	Misstatement
1	12/31/19	Tri County Operating Reserve	02-3000-3565				110,933.63		
1	12/31/19	Transfer to Tri County Reserve	02-7315-7900			110,933.63			
		To correct transfer to reserve per clients journal entry							
2	12/31/19	Due from Municipality of West Elgin	02-2000-2100			265,461.91			
2	12/31/19	Tri County Operating Reserve	02-3000-3565				265,461.91		
		To correct posting of initial surplus to proper reserve account							
3	12/31/19	WIP Tri County	02-1000-1800			47,712.33			
3	12/31/19	Tri County Capital Assets	02-7315-8000				47,712.33		
		To move capital that is not completed as identified by Treasurer to WIP							
4	12/31/19	Accounts payable	02-2000-2010				24,912.56		
4	12/31/19	Due from Municipality of West Elgin	02-2000-2100			24,912.56			
5	12/31/19	Tri County Equipment	02-1000-1503			140,276.81			
5	12/31/19	Tri County Capital Assets	02-7315-8000				140,276.81		
		To move capital to balance sheet for PSAB as identified at U.2							
6	12/31/19	AA Tri County Buildings	02-1000-1602				92,779.15		
6	12/31/19	AA Tri County Equipment	02-1000-1603				549,538.59		
6	12/31/19	AA - Tri County Linear Assets	02-1000-1604				19,626.56		
6	12/31/19	Amortization - Tri County	02-7315-9000			661,944.30			
		To post amortization for the year per U.1							
						1,251,241.54	1,251,241.54		

Net Income (Loss) -473,955.16

**TRI-COUNTY WATER BOARD
FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2019**

**TRI-COUNTY WATER BOARD
FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2019**

-1-	Independent Auditor's Report
-3-	Statement of Financial Position
-4-	Statement of Operations and Accumulated Surplus
-5-	Statement of Cash Flows
-6-	Statement of Change in Net Financial Assets
-7- to -8-	Notes to the Financial Statements
-9-	Schedule 1 - Schedule of Tangible Capital Assets

INDEPENDENT AUDITOR'S REPORT

To the Members of Board, Ratepayers and Inhabitants of the Tri-County Water Board

Opinion

We have audited the accompanying financial statements of Tri-County Water Board (the "Board"), which comprise the Statement of Financial Position as at December 31, 2019, and Statements of Operations and Accumulated Surplus, Cash Flows and Change in Net Financial Assets for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of Tri-County Water Board as at December 31, 2019 and its financial performance and its changes in cash flows and net financial assets for the year then ended, in accordance with Canadian public sector accounting standards.

Basis of Opinion

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

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

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

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

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

Auditor's Responsibilities for the Audit of the Financial Statements

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

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

We also:

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

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

June 30, 2020
London, Canada

LICENSED PUBLIC ACCOUNTANT

TRI-COUNTY WATER BOARD
STATEMENT OF FINANCIAL POSITION
AS AT DECEMBER 31, 2019

	2019	2018
FINANCIAL ASSETS		
Due from Municipality of West Elgin - operating (note 2)	\$ 734,834	\$ 584,252
	734,834	584,252
LIABILITIES		
Accounts payable and accrued liabilities	24,912	28,858
	24,912	28,858
NET FINANCIAL ASSETS	709,922	555,394
NON FINANCIAL ASSETS		
Tangible capital assets (note 1.c) (Schedule 1)	12,162,237	12,683,903
Capital work in progress	47,712	-
	12,209,949	12,683,903
ACCUMULATED SURPLUS (note 3)	\$ 12,919,871	\$ 13,239,297

The accompanying notes are an integral part of these financial statements.

TRI-COUNTY WATER BOARD
STATEMENT OF OPERATIONS AND ACCUMULATED SURPLUS
FOR THE YEAR ENDED DECEMBER 31, 2019

	Budget 2019	Actual 2019	Actual 2018
REVENUE			
Current interest	2,000	14,517	6,840
Water billings	\$ 1,135,960	\$ 1,234,368	\$ 1,199,150
	1,137,960	1,248,885	1,205,990
EXPENDITURES			
Amortization	-	661,944	656,312
Minor capital expenditures	223,100	55,217	69,867
OCWA contract and callouts	421,418	428,443	421,418
Operating and maintenance	415,415	422,707	387,629
	1,059,933	1,568,311	1,535,226
REVENUE OVER EXPENDITURES (EXPENDITURES OVER REVENUE)	78,027	(319,426)	(329,236)
ACCUMULATED SURPLUS, BEGINNING OF YEAR	13,239,297	13,239,297	13,568,533
ACCUMULATED SURPLUS, END OF YEAR	\$ 13,317,324	\$ 12,919,871	\$ 13,239,297

The accompanying notes are an integral part of these financial statements.

**TRI-COUNTY WATER BOARD
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED DECEMBER 31, 2019**

	2019	2018
OPERATING ACTIVITIES		
Revenue over expenditures (expenditures over revenue) (page 4)	\$ (319,426)	\$ (329,236)
Non-cash expenditures - amortization	661,944	656,312
Net change in non-cash working capital balances related to operations (A)	(154,528)	(185,744)
	187,990	141,332
INVESTING ACTIVITIES		
(Increase) decrease in capital asset and work in progress	(187,990)	(141,332)
Change in cash during the year	-	-
CASH, BEGINNING OF YEAR	-	-
CASH, END OF YEAR	\$ -	\$ -

(A) Consists of changes in and due from the Municipality of West Elgin and accounts payable and accrued liabilities

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

TRI-COUNTY WATER BOARD
STATEMENT OF CHANGE IN NET FINANCIAL ASSETS
FOR THE YEAR ENDED DECEMBER 31, 2019

	2019	2018
Excess of revenue over expenditures (expenditures over revenue) (page 4)	\$ (319,426)	\$ (329,236)
Amortization of tangible capital assets	661,944	656,312
Acquisition of tangible capital assets	(187,990)	(141,332)
Increase (decrease) in net financial assets	154,528	185,744
NET FINANCIAL ASSETS, BEGINNING OF YEAR	555,394	369,650
NET FINANCIAL ASSETS, END OF YEAR	\$ 709,922	\$ 555,394

The accompanying notes are an integral part of these financial statements.

**TRI-COUNTY WATER BOARD
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2019**

The Tri-County Water Board (the Board) is a Joint Municipal Water Board in the Province of Ontario, Canada. It conducts its operations guided by the provisions of provincial statutes such as the Municipal Act, Municipal Affairs Act and related legislation. On July 22, 2014, the participating municipalities entered a new agreement to control and govern the management of the Tri-County Water System (the System). The participating municipalities of the Board are the Municipalities of Dutton-Dunwich, Southwest Middlesex, Chatham Kent, Newbury and West Elgin. The Municipality of West Elgin (the Municipality) is the Administering Municipality. The System was previously operated under a Purchase Capacity Agreement and Management Agreement which were signed in 1991 between the same parties. The Municipalities of Chatham Kent and Newbury are billed by Southwest Middlesex based on their usage.

1. Significant accounting policies

The financial statements of the Board are prepared by management in accordance with Canadian public sector accounting standards.

a. Basis of accounting

Revenue and expenditures are reported on the accrual basis of accounting which recognizes revenue as they become available and measurable; expenditures are recognized as they are incurred and measurable as a result of receipt of goods or services and the creation of a legal obligation to pay.

Government grants and transfers are recognized in the financial statements as revenue in the period in which events giving rise to the transfer occur, providing the transfers are authorized, any eligibility criteria have been met, and reasonable estimates of the amounts can be made.

b. Uses of estimates

The preparation of financial statements in conformity with Canadian public sector accounting standards requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenditures during the period. Actual results could differ from these estimates.

c. Tangible capital assets

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

Buildings	50 years
Infrastructure and equipment	25 years
Waterlines	75 years

**TRI-COUNTY WATER BOARD
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2019**

1. Significant accounting policies continued

d. Budget

The Board set a budget based on the accounting policies adopted previous to PSAB Handbook policy for tangible capital assets.

e. Deferred revenue

Revenue received for specific purposes which are externally restricted by legislation, regulation or agreement and are not available for general municipal purposes are accounted for as deferred revenue on the Statement of Financial Position. The revenue is recognized in the Statement of Operations and Accumulated Surplus in the year in which it is used for the specified purpose.

2. Continuing operations

All banking activities are administered by the Municipality of West Elgin, on behalf of the Board's activities. The amount due from the Municipality of West Elgin represents the net working capital position between the Municipality and the Board after adding or deducting payments made to or received from the Municipality of West Elgin.

3. Accumulated surplus

The accumulated surplus is comprised of the following:

	2019	2018
Reserve for future operations	\$ 930,862	\$ 776,334
Invested in tangible capital assets	11,989,009	12,462,963
	\$ 12,919,871	\$ 13,239,297

4. Commitment

The Board, through the Municipality of West Elgin, has contracted with OCWA to operate and maintain the System. The annual cost for 2019 was \$428,443 (2018 - \$421,418).

5. Subsequent event

In March 2020, the Province of Ontario declared a state of emergency due to the COVID-19 virus. It is unclear what impact, if any, the COVID-19 virus will have on the operations of the Board. The Board and management continue to monitor the situation.

**TRI-COUNTY WATER BOARD
SCHEDULE OF TANGIBLE CAPITAL ASSETS
FOR THE YEAR ENDED DECEMBER 31, 2019**

		Land	Buildings	Equipment	Waterlines	Total
COST						
Balance, beginning of year	\$	88,735	\$ 4,601,573	\$ 13,668,327	\$ 1,471,992	\$ 19,830,627
Add:						
Additions during the year		-	-	140,278	-	140,278
Less:						
Disposals during the year		-	-	(59,638)	-	(59,638)
Balance, end of year		88,735	4,601,573	13,748,967	1,471,992	19,911,267
ACCUMULATED AMORTIZATION						
Balance, beginning of year		-	1,324,239	5,076,671	745,814	7,146,724
Add:						
Amortization during the year		-	92,779	549,539	19,626	661,944
Less:						
Disposals during the year		-	-	(59,638)	-	(59,638)
Balance, end of year		-	1,417,018	5,566,572	765,440	7,749,030
NET BOOK VALUE OF TANGIBLE CAPITAL ASSETS						
	\$	88,735	\$ 3,184,555	\$ 8,182,395	\$ 706,552	\$ 12,162,237

This schedule is provided for information purposes only.

Tri-County Water
Statement of Financial Position
As of May 31, 2020

Revenue	2020 Actuals	2020 Budget
02-7315-6110 BANK INTEREST	-	6,000.00
02-7315-6590 WATER REV - MUNICIPAL - Note 1	325,143.82	1,294,451.00
Operating Expenses		
02-7315-7500 HYDRO - Note 2	61,486.97	340,000.00
02-7315-7501 GAS - Note 3	12,865.65	19,000.00
02-7315-7510 INSURANCE	15,639.48	15,639.48
02-7315-7511 TAXES - Note 4	32,753.00	67,475.62
02-7315-7529 ADMINISTRATION EXPENSE	-	6,000.00
02-7315-7601 TELEPHONE & INTERNET - Note 5	1,367.22	8,500.00
02-7315-7676 AUDIT	-	3,765.12
02-7315-7680 CONTRACTED SERVICES	183,092.28	434,155.00
02-7315-7900 TRANSFER TO RESERVE	-	53,430.78
02-7315-7901 TRANSFER FROM RESERVES	-	-
Capital Exp		
02-7315-8000 CAPITAL OVER \$10,0000 - Note 6	10,202.83	352,485.00
	-\$ 7,736.39	\$ -

Notes:

Note 1 Revenue - billed to West Elgin based on estimates on March 16, 2020

Consumption (m³) as of April 30, 2020 Chamber Reads

West Elgin	118,700.00	138,396
Dutton-Dunwich	77,523.00	85,045
SWM	146,428.00	145,794

Note 2 Hydro - billed until April 1, 2020

Note 3 Gas - billed until April 6, 2020

Note 4 Taxes - Interim billing

Note 5 Telephone & Internet - Jan-Feb-2020

Note 6 Capital - See Schedule A

Tri-County Water Treatment Plant

No.	Scope of Work	2020 Actual & Forecast	2020 Budget	WO #	Notes
Treatment Plant					
1	Main Hydro Transformer: undersized and requires upgrading		50,000.00		
2	Plant Critical Alarms: Implementation of WIN911 system	16,761.39	15,000.00	1707319	Project is underway; anticipated to be completed by end of July.
3	pH Control System (Pilot project)	1,718.59	11,000.00		To be completed June 15 for \$1,225.10
4	PALL Inspection "Health check"	11,165.62	15,000.00	1586157	To be completed June 2020.
5	Smart positioners	4,762.85	4,000.00	1707960	Completed not invoiced.
6	Pneumatic actuators		3,000.00		On hold
7	Treatment Plant and Lowlift: Power Factor Correction (PFC)	9,341.56	10,000.00	1622747	In process
8	Chlorine Analyzer pH probes and cl2 probes	7,602.58	6,500.00	1663835	Complete.
9	Lowlift Turbidimeter: Replace and upgrade old surface turbidimeter	7,384.27	15,000.00	1662570 1792205	In process
10	Filter Racks 3 and 4: Controller and turbidimeter replacement and auto cleaners		20,000.00		On hold.
11	UV system Reactors	2,126.33	2,200.00	1793032	Complete. Not invoiced
12	Air Manifold card replacement and air lines - 4 year cycle	8,484.24	5,000.00		
13	Treatment Plant and Lowlift Settling Tanks: Sediment removal		10,000.00		
14	PALL membranes		5,000.00		Awaiting report from PALL before proceeding
Highlift and Lowlift Pumps & Motors					
15	Lowlift motor rebuilds/replacement		10,000.00		
16	Lowlift pump inspection/refurbishment	0	10,000.00	1622748	In process.
17	Lowlift motor number 1: detuning for proper balancing to prevent vibration	\$ 28,653.90	5,000.00		
18	Lowlift motors: replacement of soft starters With Variable Frequency Drive's	\$ 18,473.10	6,000.00	1622780	On-going
Structural includes: (piping/control or PRV valves/building/HVAC)					
19	Raw wetwell maintenance/repairs/upgrades		10,000.00		
20	Lowlift: Shore line valve repair		20,000.00		
21	Air Conditioning Unit: Replacement required		15,000.00	1791025	
22	Treatment Plant: Condition assesment	9,775.73	10,000.00	1792365	In process.
23	Discharge Header: Repairing/ replacing stainless pipe		20,000.00		
Standpipe and Transmission Main					
24	Transmission Main Discharge header: Replacement of three Pressure Regulating Valves		15,000.00		
25	Chamber repairs	24,120.07	5,000.00	1664477	In process.
26	PLC Controllers (Eagle West/Silverclay/Marsh/Pioneer)		15,000.00		
27	Standpipe inspection		5,000.00		
28	Standpipe overflow upgrades		6,000.00		
29	Eagle east (Wallacetown train) chamber flowmeter	7,065.62	12,000.00	1708866	
30	Contingency	-	16,785.00		
Total Capital		157,435.85	352,485.00		

* Items in bold represent invoiced amount

February 28, 2020

Tri-County Water Board
c/o: Magda Badura
22413 Hoskins Line
Rodney, ON N0L 2C0

Re: Requirement under the Safe Drinking Water Act for a Summary Report

Dear Ms. Badura;

Attached is the 2019 Summary Report for the Tri-County Drinking Water System. This report is completed in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act.

This Summary Report is to be provided to the members of the Tri-County Water Board. Please ensure this distribution by March 31st, 2020.

We recently forwarded a copy of the 2019 Annual Report for the Tri-County Drinking Water System required under Section 11 of O. Reg. 170/03. Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Please feel free to contact me should you require any additional information regarding these reports. I can be reached at 226-377-3563.

Sincerely,



Cindy Sigurdson
Safety, Process and Compliance Manager

cc. Mike Taylor, Senior Operations Manager
Dale LeBritton, Regional Hub Manager
Stephanie Baronette, Process and Compliance Technician



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

**Annual Summary Report
For the
Tri-County Drinking Water System
2019**

Prepared for the Tri-County Water Board

By the Ontario Clean Water Agency

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3	Corrective Actions Schedule 22-2 (2)(b) For each requirement referred to in section 2 that was not met, specify the duration of the failure and the measures that were taken to correct the failure.	2
4	Flow Summary Schedule 22-2 (3) 1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows. 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement.	3
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SECTION 1: Overview

This summary report for the Tri-County Drinking Water System is published in accordance with Schedule 22 of Ontario's Drinking Water Systems Regulation for the reporting period of January 1, 2019 to December 31, 2019. The Tri-County Drinking Water System (DWS) is categorized as a Large Municipal Residential Drinking Water System.

The DWS is owned by the Tri-County Water Board. The system is made up of the Tri-County Water Treatment Plant, the transmission main and the West Lorne Standpipe.

The Tri-County DWS operated in accordance with the Municipal Drinking Water Licence 043-101, Drinking Water Works Permit 043-201 and Permit to Take Water 0515-8L9GX7 (Issued September 1, 2011).

This report was prepared by The Ontario Clean Water Agency on behalf of the Tri-County Water Board and must be supplied to the Tri-County Water Board by March 31st, 2020.

SECTION 2: Compliance

The Tri-County DWS was operated and maintained in such a manner that treated water supplied to the consumers serviced by the system satisfied Ontario Drinking Water Quality Standards. However, some of the regulatory requirements were not met as identified below.

There was a routine inspection conducted by the Ministry of the Environment, Conservation and Parks (MECP) on December 11, 2019. There were three non-compliances with regulatory requirements identified in the inspection report. The non-compliance as written in the final inspection report is as follows:

- 1. Where an activity has occurred that could introduce contamination, all parts of the drinking water system were not disinfected in accordance with Schedule B, Condition 2.3 of the Drinking Water Works Permit.**

Drinking Water Works Permit #043-201 - Issue #5 Section 2.3 of Schedule B stipulates that all parts of the drinking water system in contact with drinking water that are added, modified, replaced, extended or taken out of service for inspection, repair or other activities that may lead to contamination, shall be disinfected before being put into service in accordance with a procedure approved by the Director or in accordance with the applicable provisions of the following documents:

- a) The Ministry's Watermain Disinfection Procedure, effective no later than October 31, 2017;*
- b) AWWA C652 – Standard for Disinfection of Water-Storage Facilities;*
- c) AWWA C653 – Standard for Disinfection of Water Treatment Plants; and*
- d) AWWA C654 – Standard for Disinfection of Wells.*

The Owner/Operating Authority submitted two (2) internal forms for the replacement of two (2) treated water highlift discharge PRV valves located within the Tri-County Water Treatment Plant. A review of the documentation submitted, indicated that Owner/Operating Authority failed to ensure that AWWA Standard C653 – Disinfection of Water Treatment Plants was accurately followed in order to satisfy the conditions imposed by the Director in the Drinking Water Works Permit. In addition to the aforementioned, the forms lacked appropriate details such as but not limited to the following; which approved disinfection method was followed, accurate times of activities performed, the length of contact time and the level of free chlorine. The Owner/Operating Authority also failed to ensure that bacteriological samples were collected, and acceptable results received prior to putting the valve into service.

Action(s) Required: *From herein, the Owner/Operating Authority shall ensure that the procedures listed in the most current issue of the Drinking Water Works Permit #043-201, Section 2.3 of Schedule B is*

accurately followed, and activities are properly documented in order to satisfy the conditions imposed by the Director. The Owner/Operating Authority shall provide training to the operators on the requirements of the most current issue of the Drinking Water Works Permit #043-201 and shall submit documentation to ensure compliance with the aforementioned including an operator sign off sheet to the undersigned inspector no later than February 28, 2020.

2. Operators were not examining continuous monitoring test results or they were not examining the results within 72 hours of the test.

In accordance with Ontario Regulation 170/03 Schedule 6-5(1) if a drinking water system uses continuous monitoring equipment for sampling and testing that is required under this Regulation, or under an approval, municipal drinking water licence, drinking water works permit, or order, for a parameter set out in the Table to this section the owner of the system and the operating authority for the system shall ensure that the test results recorded under paragraph 1 or 2 must be examined, within 72 hours of the tests are conducted by a (i) Certified operator in the case of a Large Municipal Residential System. At the time of the inspection, the Owner/Operating Authority proactively notified the Ministry that a review of continuous monitoring equipment for the treatment plant occurred on the morning of Friday November 29, 2019 but did not occur again until late afternoon on Monday December 2, 2019 which exceeded the 72 hour review period. The Owner/Operating Authority currently have procedures in place to ensure that the 72 hour review is completed, however, an oversight occurred on the Friday and the trends were not reviewed prior to operators leaving for the weekend. The Owner/Operating Authority proactively reviewed the procedures with the operators.

Action(s) Required:

From herein, the Owner/Operating Authority shall take such steps necessary to prevent future exceedances of the 72 hour review as per Schedule 6-5(3) of O.Reg 170/03. No further action required at this time. Compliance shall be assessed during the next inspection period.

3. The following instance(s) of non-compliance were also noted during the inspection:

Municipal Drinking Water Licence #043-101 – Issue #7 Section 1.5 of Schedule C states that in respect of an effluent discharged into the natural environment from the Tri-County Water Treatment Plant shall not exceed the Annual Average Concentration of 25 mg/L of Total Suspended Solids at the point of discharge from the settling lagoons to the natural environment. On February 15, 2019, the Owner/Operating Authority notified the Ministry that the Annual Average Concentration for Total Suspended Solids was exceeded with a result of 89 mg/L. The exceedance was reported as a Legislative Non-compliance under Municipal Drinking Water Licence #043-101. The Owner/Operating Authority suspect that the exceedance was due to incorrect sampling technique. Corrective actions included reviewing sampling techniques with operators.

Action(s) Required:

From herein, the Owner/Operating Authority shall take such steps necessary to prevent future exceedances of Total Suspended Solids at the point of discharge from the settling lagoons to the natural environment. No further action required at this time. Compliance shall be assessed during the next inspection period.

There were one adverse water quality incidents in 2019. The first was AWQI # 144444 on January 2nd, 2019. The results of the sample indicated the presence of Total Coliform of 1cfu/100mL. Notifications were provided to the Spills Action Centre, MECP and the Medical Officer of Health as required by O. Reg. 170/03. Re-samples were collected and submitted for analysis. Re-sample results met the Ontario Drinking Water Quality Standards.

SECTION 3: Corrective Action

The routine MECP Inspections have an Inspection Rating Record, which evaluates the system to provide information for the owner/operator on areas that need to be improved. The particular areas that were evaluated for the Tri-county Drinking Water System were: Capacity Assessment, Treatment Process, Operations Manuals, Logbooks, Certification and Training, Water Quality Monitoring, Reporting and Corrective Actions, and Treatment Process Monitoring. This system received 35 out of 510 non-compliance ratings and as such received 93.14% for the Final Inspection Rating.

In response to the non-compliance, training was provided on February 27th, 2020, to the operators regarding the procedures listed in the most current issue of the Drinking Water Works Permit #043-201, Section 2.3 of Schedule B. The training included: sampling, notifications, documentation as well as a review of the AWWA C653 Standard. The MECP was notified of this corrective action on February 28th, 2020.

For the AWQIs resamples were obtained upstream, at the location of the adverse and downstream of the adverse. All results showed no total coliform and no E. coli. All reporting and sampling was completed as requirement by O. Reg. 170/03.

SECTION 4: Summary and Discussion of Quantity of Water Supplied

In accordance with Schedule 22-2(3) find a summary and discussion of the quantity of water supplied during the reporting period compared to the rated capacity specified in the MDWL, DWWP and Permit to Take Water, including monthly average and maximum daily flows.

Attached as Appendix A, find a summary of the raw flows including total, average, and maximum daily flows, and peak flow rates for the reporting period. As well, a comparison of flows to the Permit to Take Water limits is provided. The Permit to Take Water (PTTW) specifies flow rates and total water takings permitted. For the Tri-County DWS the maximum flow rate limit is 9,400L/min. The total daily water taking is 13,500m³/day. The overall daily taking of water was not exceeded. The Tri-County DWS is at 31% capacity for the average daily water taking limit, which is up by 2.6% from last year.

Attached as Appendix B, find a summary of treated water flows including total, average, and maximum daily flows for the reporting period. As well, a comparison of flows to the Municipal Drinking Water Licence (MDWL) rated capacities is provided. The rated capacity of the plant is 12,160m³/day of treated water as specified in the MDWL. The daily average flow for the reporting period was 3,832m³/day, which is a decrease by 0.3% from 2018. The maximum daily flow for the reporting period was 6,547m³/day. The plant is operating at 31.5% of its rated capacity; this is down from 2018 by 0.3%.

The Tri-County DWS is capable of meeting its current uses for the system. It is operating at well below the limits set out in the Permit to Take Water and the design capacity for the plant.

APPENDIX A

Raw Flows for the Tri-County DWS compared to the specified limits in the Permit to Take Water. The maximum flow rate specified is 9,400L/min (156.7L/s) with a total water taking of 13,500,000L/day.

Month	Total Flow (m ³)	Average Day Flow (m ³ /day)	% of PTTW Limit	Max Day Flow (m ³ /day)	% of PTTW Limit	Max Day Flow Rates (L/s)	% of PTTW Limit
January	112,361	3,625	26.9	5,440	57.9	138.5	88.4
February	95,629	3,415	25.3	5,083	54.1	137.6	87.8
March	109,123	3,520	26.1	4,696	50.0	141.3	90.2
April	108,848	3,628	26.9	5,076	54.0	140.1	89.4
May	119,750	3,863	28.6	5,144	54.7	143.0	91.3
June	146,427	4,881	36.2	7,085	75.4	142.8	91.1
July	150,273	4,848	35.9	6,653	70.8	139.0	88.7
August	149,231	4,814	35.7	6,265	66.6	141.3	90.2
September	135,600	4,520	33.5	5,800	61.7	141.3	90.2
October	130,044	4,195	31.1	6,681	71.1	141.3	90.2
November	120,506	4,017	29.8	5,767	61.4	140.0	89.3
December	151,222	4,878	36.1	7,806	83.0	134.1	85.6
Total	1,529,014						
Average		4,189	31.0				
Maximum				7,806	82.0	143.0	91.3

APPENDIX B

Treated flows for the Tri-County DWS compared to the specified rated capacity of 12,160m³/day in the Municipal Drinking Water Licence.

Month	Total Flow (m ³)	Average Day Flow (m ³ /day)	% of Rated Capacity	Max Day Flow (m ³ /day)	% of Rated Capacity
January	102,419	3,304	27.2	4,774	39.3
February	85,683	3,060	25.2	4,652	38.3
March	105,822	3,307	27.2	4,707	38.7
April	102,910	3,430	28.2	4,526	37.2
May	114,739	3,701	30.4	4,612	37.9
June	138,440	4,615	38.0	6,547	53.8
July	147,361	4,754	39.1	6,120	50.3
August	140,177	4,522	37.2	5,751	47.3
September	124,716	4,157	34.2	5,225	43.0
October	122,185	3,941	32.4	4,815	39.6
November	114,019	3,801	31.3	5,196	42.7
December	104,120	3,359	27.6	4,694	38.6
Total	1,402,589				
Average		3,832	31.5		
Maximum				6,547	50.3

ANNUAL REPORT

Drinking-Water System Number:	260091117
Drinking-Water System Name:	Tri-County Drinking Water System
Drinking-Water System Owner:	Tri-County Water Board
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1 st to December 31 st , 2019

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No []</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> West Elgin Municipal Office 22413 Hoskins Line Rodney, ON N0L 2C0 </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []</p> <p>Number of Interested Authorities you report to:</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []</p>
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List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
West Elgin Distribution System	260094627

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?
 Yes [X] No []



Indicate how you notified system users that your annual report is available, and is free of charge.

☒ Public access/notice via the web

☒ Public access/notice via Government Office

☐ Public access/notice via a newspaper

☒ Public access/notice via Public Request

☐ Public access/notice via a Public Library

☐ Public access/notice via other method _____

Describe your Drinking-Water System

The Tri-County Drinking Water System consists of the Tri-County Water Treatment Plant (WTP) and the Tri-County Transmission Main. The Tri-County WTP is a membrane filtration surface water treatment facility with a total design capacity of 12,160m³/day, located at 9210 Graham Road in the Municipality of West Elgin. The low lift pumping station is located south of the WTP at 8662 Graham Road, on the shores of Lake Erie.

The water treatment facility consists of an intake system, a low lift pumping station, a treatment system and distribution pumping system. The Tri-County Drinking Water System serves the following systems: Southwest Middlesex, West Elgin, Dutton-Dunwich, Newbury and Bothwell Distribution Systems. The Southwest Middlesex and West Elgin Distribution Systems receive all their water directly from the Tri-County Drinking Water System. Dutton-Dunwich receives a portion of their water supply from the Tri-County Drinking Water System with the remainder coming from the Southwold Distribution System. Newbury and Bothwell Distribution Systems receive water indirectly from the Tri-County Drinking Water System via the Southwest Middlesex Distribution System.

Intake

The intake consists of one 700mm diameter polyethylene pipe extending approximately 610m into Lake Erie at a depth of 5.7m. A zebra mussel chemical control system is used seasonally. There is a second intake located at the shoreline, this is used only as a backup if required due to water quality or a blockage. The raw water is screened by two coarse screens.

Low Lift Pumping Station

Raw water is pumped from the low lift wet wells by four low lift pumps to the Water Treatment Plant.

Treatment Plant

Filtration

At the water treatment plant the water is pre-filtered by four automatic strainers to protect the filter membranes from coarser particles and algae in the raw water. The raw water pH is lowered if required by the use of carbon dioxide.

After the water has been strained it enters the membrane filtration system which removes fine particles, sediment, algae, protozoa and bacteria. Filtered water can be directed through the UV advanced oxidation process (AOP) unit to the treated water storage tanks.



Disinfection

Disinfection is achieved by the use of sodium hypochlorite for primary disinfection. Note that UV is intended for use with hydrogen peroxide (AOP) for taste and odour control. The treated water is stored in treated water storage tanks where it is pumped into the distribution network by the high lift pumps. Post chlorination of the treated water is done at two points. The first dosing point is upstream of the treated water storage tanks and the second dosing point is downstream of the four high lift pumps before the distribution header.

Process Drain Water

Waste water from the floor drains and online analyzers are directed to the process water handling facilities that include a settling basin and constructed wetlands. Flush water that cleans the pre-strainers and the membranes is also sent to the process water handling facilities.

Monitor and Control

The water treatment process and distribution components are controlled by a dedicated Supervisory Control and Data Acquisition (SCADA) computer system and monitored by certified operators.

Standby Power

Two diesel generators are available to permit the treatment plant to remain in operation should a power failure occur.

Distribution

The Tri-County Distribution System includes the transmission main to the West Lorne Standpipe.

West Lorne Standpipe

The West Lorne Standpipe capacity is 2,889m³.

List all water treatment chemicals used over this reporting period

Chlorine Gas

Sodium Hypochlorite 12%

Hydrogen Peroxide 50%

Citric Acid 50%*

Caustic Soda 50%*

Calcium Thiosulfate (Captor) 30%*

Carbon Dioxide

*used in the cleaning process of the membranes

Were any significant expenses incurred to?

- ☒ Install required equipment
☒ Repair required equipment
☒ Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

-Replaced actuator on Rack #4 Valve #3415
 -Installed new module on Rack #4
 -Repaired RFR Pump 4360
 -Replaced overload on low lift
 -Repaired PRV-7064
 -Repaired overload on chemical room heater
 -Repaired compressor A and B
 -Installed new pH probe at low lift
 -Installed new DO and pH probe in aquarium at low lift
 -Installed new chlorine probe at AIT 7004
 -Installed turbidity meter on Rack #1 and #2
 -Installed air drier on compressor
 -Repaired high lift pump #4
 -Installed process drain pump 9020
 -Repairs garage door
 -Installed new air compressor #2
 -Installed hot water heater

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
2019-01-03	Total Coliform	1	cfu/100mL	Resample	2019-01-09

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	No. of Samples Collected	Range of E.Coli Results (cfu/100mL)		Range of Total Coliform Results (cfu/100mL)		Number of HPC Samples	Range of HPC Results (cfu/mL)	
		Minimum	Maximum	Minimum	Maximum		Minimum	Maximum
RW	52	0	NDOGT	0	NDOGT	n/a	n/a	n/a
TW	55	0	0	0	0	55	10	20
Distribution	110	0	0	0	1	110	10	30

*NDOGT = No Data, overgrown with Target Bacteria

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (min #)-(max #)	Unit of Measure
Turbidity (Rack 1)	8760	0.01 – 8*	ntu
Turbidity (Rack 2)	8760	0.02 – 0.74*	ntu
Turbidity (Rack 3)	8760	0.01 – 0.03	ntu
Turbidity (Rack 4)	8760	0.02 – 0.59	ntu
Free Chlorine (Primary Disinfection)	8760	1.01 – 2.10	mg/L
Free Chlorine (Secondary Disinfection)	8760	0.77– 2.13	mg/L
Free Chlorine (Distribution—Grab)	420	0.69 – 1.75	mg/L

NOTE: For continuous monitors use 8760 as the number of samples.

*Turbidity spikes lasted less than 1 minute

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
2017-04-21	Suspended Solids	2019-01-07	19	mg/L
		2019-04-01	22	
		2019-07-02	2	
		2019-07-10	12	
		2019-08-12	22	
		2019-09-03	8	
		2019-10-07	6	
		2019-11-27	15	
		2019-12-02	11	

*Quarterly sampling was required under Issue 6 of the MDWL, Issue 7 requires Monthly sampling as of July 16th, 2019.



Summary of Inorganic parameters tested during this reporting period or the most recent sample results

TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
Antimony: Sb (ug/L) - TW	2019/01/07	0.15	6.0	No	No
Arsenic: As (ug/L) - TW	2019/01/07	0.7	10.0	No	No
Barium: Ba (ug/L) - TW	2019/01/07	20.8	1000.0	No	No
Boron: B (ug/L) - TW	2019/01/07	21.0	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2019/01/07	0.003	5.0	No	No
Chromium: Cr (ug/L) - TW	2019/01/07	0.11	50.0	No	No
Mercury: Hg (ug/L) - TW	2019/01/07	<MDL 0.01	1.0	No	No
Selenium: Se (ug/L) - TW	2019/01/07	0.13	50.0	No	No
Uranium: U (ug/L) - TW	2019/01/07	0.395	20.0	No	No
Additional Inorganics					
Fluoride (mg/L) - TW	2019/05/06	0.12	1.5	No	No
Nitrite (mg/L) - TW	2019/01/07	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/04/01	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/07/02	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/10/07	<MDL 0.003	1.0	No	No
Nitrate (mg/L) - TW	2019/01/07	0.265	10.0	No	No
Nitrate (mg/L) - TW	2019/04/01	0.173	10.0	No	No
Nitrate (mg/L) - TW	2019/07/02	0.128	10.0	No	No
Nitrate (mg/L) - TW	2019/10/07	0.17	10.0	No	No
Sodium: Na (mg/L) - TW	2019/05/06	9.72	20*	No	No
*There is no "MAC" for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.					

Summary of lead testing under Schedule 15.1 during this reporting period

(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Results		MAC (ug/L)	Number of Exceedances
		Minimum	Maximum		
Distribution - Lead Results (ug/L)	0	n/a	n/a	n/a	n/a
Distribution - Alkalinity (mg/L)	8	96	105	n/a	n/a
Distribution - pH	8	7.66	8.02	n/a	n/a



Summary of Organic parameters sampled during this reporting period or the most recent sample results

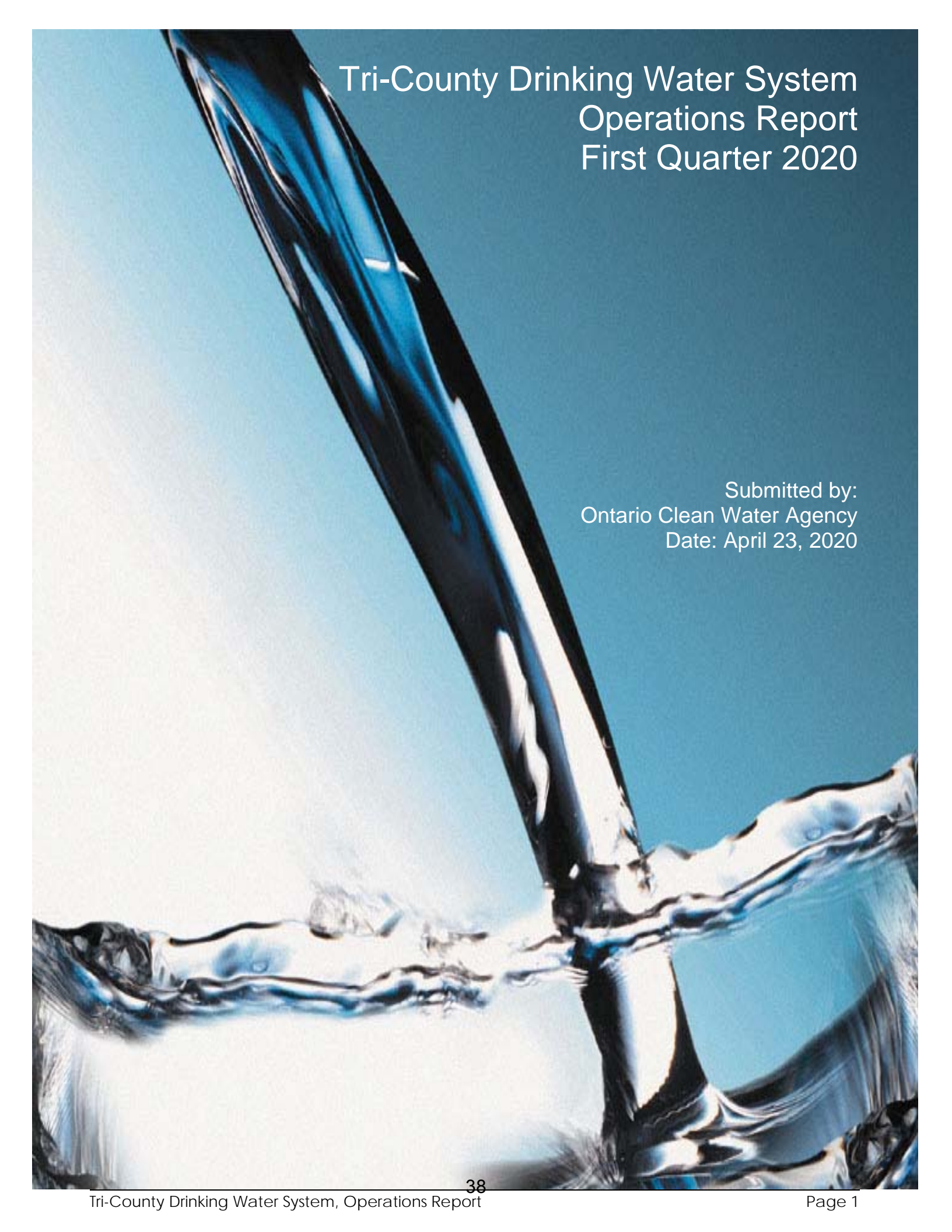
TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Alachlor (ug/L) - TW	2019/01/07	<MDL 0.02	5.0	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2019/01/07	0.07	5.0	No	No
Azinphos-methyl (ug/L) - TW	2019/01/07	<MDL 0.05	20.0	No	No
Benzene (ug/L) - TW	2019/01/07	<MDL 0.32	1.0	No	No
Benzo(a)pyrene (ug/L) - TW	2019/01/07	<MDL 0.004	0.01	No	No
Bromoxynil (ug/L) - TW	2019/01/07	<MDL 0.33	5.0	No	No
Carbaryl (ug/L) - TW	2019/01/07	<MDL 0.05	90.0	No	No
Carbofuran (ug/L) - TW	2019/01/07	<MDL 0.01	90.0	No	No
Carbon Tetrachloride (ug/L) - TW	2019/01/07	<MDL 0.16	2.0	No	No
Chlorpyrifos (ug/L) - TW	2019/01/07	<MDL 0.02	90.0	No	No
Diazinon (ug/L) - TW	2019/01/07	<MDL 0.02	20.0	No	No
Dicamba (ug/L) - TW	2019/01/07	<MDL 0.2	120.0	No	No
1,2-Dichlorobenzene (ug/L) - TW	2019/01/07	<MDL 0.41	200.0	No	No
1,4-Dichlorobenzene (ug/L) - TW	2019/01/07	<MDL 0.36	5.0	No	No
1,2-Dichloroethane (ug/L) - TW	2019/01/07	<MDL 0.35	5.0	No	No
1,1-Dichloroethylene (ug/L) - TW	2019/01/07	<MDL 0.33	14.0	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2019/01/07	<MDL 0.35	50.0	No	No
2,4-Dichlorophenol (ug/L) - TW	2019/01/07	<MDL 0.15	900.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2019/01/07	<MDL 0.19	100.0	No	No
Diclofop-methyl (ug/L) - TW	2019/01/07	<MDL 0.4	9.0	No	No
Dimethoate (ug/L) - TW	2019/01/07	<MDL 0.03	20.0	No	No
Diquat (ug/L) - TW	2019/01/07	<MDL 1.0	70.0	No	No
Diuron (ug/L) - TW	2019/01/07	<MDL 0.03	150.0	No	No
Glyphosate (ug/L) - TW	2019/01/07	<MDL 1.0	280.0	No	No
Malathion (ug/L) - TW	2019/01/07	<MDL 0.02	190.0	No	No
Metolachlor (ug/L) - TW	2019/01/07	0.01	50.0	No	No
Metribuzin (ug/L) - TW	2019/01/07	<MDL 0.02	80.0	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2019/01/07	<MDL 0.3	80.0	No	No
Paraquat (ug/L) - TW	2019/01/07	<MDL 1.0	10.0	No	No
PCB (ug/L) - TW	2019/01/07	<MDL 0.04	3.0	No	No
Pentachlorophenol (ug/L) - TW	2019/01/07	<MDL 0.15	60.0	No	No
Phorate (ug/L) - TW	2019/01/07	<MDL 0.01	2.0	No	No
Picloram (ug/L) - TW	2019/01/07	<MDL 1.0	190.0	No	No
Prometryne (ug/L) - TW	2019/01/07	<MDL 0.03	1.0	No	No
Simazine (ug/L) - TW	2019/01/07	<MDL 0.01	10.0	No	No
Terbufos (ug/L) - TW	2019/01/07	<MDL 0.01	1.0	No	No
Tetrachloroethylene (ug/L) - TW	2019/01/07	<MDL 0.35	10.0	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2019/01/07	<MDL 0.2	100.0	No	No



TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Triallate (ug/L) - TW	2019/01/07	<MDL 0.01	230.0	No	No
Trichloroethylene (ug/L) - TW	2019/01/07	<MDL 0.44	5.0	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2019/01/07	<MDL 0.25	5.0	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L) - TW	2019/01/07	<MDL 0.12	100.0	No	No
Trifluralin (ug/L) - TW	2019/01/07	<MDL 0.02	45.0	No	No
Vinyl Chloride (ug/L) - TW	2019/01/07	<MDL 0.17	1.0	No	No
DISTRIBUTION WATER					
Trihalomethane: Total (ug/L) Annual Average - DW	2019	38.0	100.0	No	No
HAA Total (ug/L) Annual Average - DW	2019	20.7	80.0*	No	No

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
n/a	n/a	n/a	n/a



Tri-County Drinking Water System Operations Report First Quarter 2020

Submitted by:
Ontario Clean Water Agency
Date: April 23, 2020

Facility Description

Facility Name:	Tri-County Drinking Water System
Regional Manager:	Dale LeBritton (519) 476-5898
Sr. Operations Manager:	Mike Taylor (226) 545-0414
Business Development Manager:	Susan Budden (519) 318-3271
Facility Type:	Municipal
Classification:	Class 2 Water Distribution, Class 2 Water Treatment
Title Holder:	Municipality

Service Information

Area(s) Serviced:	West Elgin, Dutton/Dunwich, Southwest Middlesex, Newbury and Bothwell
Population Serviced:	9,985
No. of Connections:	
Water Meters:	Commercial / Residential
In Service Date:	2009

Capacity Information

Total Design Capacity:	12.160 (1000 m ³ /day)
Total Annual Flow:	1,381 (1000 m ³ /year)
Average Day Flow:	3.770 (1000 m ³ /day)
Maximum Day Flow:	5.380 (1000 m ³ /day)

Operational Description

Water treatment with intake in Lake Erie, 4 low lift pumps, lifting up to the treatment plant. Membrane filtration followed by injection with Sodium Hypochlorite for primary disinfection and into the 2 Storage Tanks. Pumping to tower & distribution system with 4 high lift pumps.

SECTION 1: COMPLIANCE SUMMARY

FIRST QUARTER:

On March 29th, 2020 at 15:41 the historian had a failure likely due to a power surge during a wind storm. The historian alarm failed to call out at 15:41 due to a firewall on the system; however the normal plant alarms functioned. On March 30th the operator conducted the 72hr review of continuous monitoring data with no issues found as identified on round sheets. However, on March 31st, it was noticed that the previous data that was reviewed was no longer stored. The operator contacted the SCADA provider, Eramosa to see if the information could be retrieved from the PLC. Eramosa attempted to retrieve the data from the PLC and the Rockwell historian but was unsuccessful. A non-compliance was reported to the MECP for the loss of continuous monitoring data.

SECTION 2: INSPECTIONS

FIRST QUARTER:

There was no Ministry of Environment, Conservation and Parks (MECP) or MOL inspections conducted during the first quarter.

SECTION 3: QEMS UPDATE

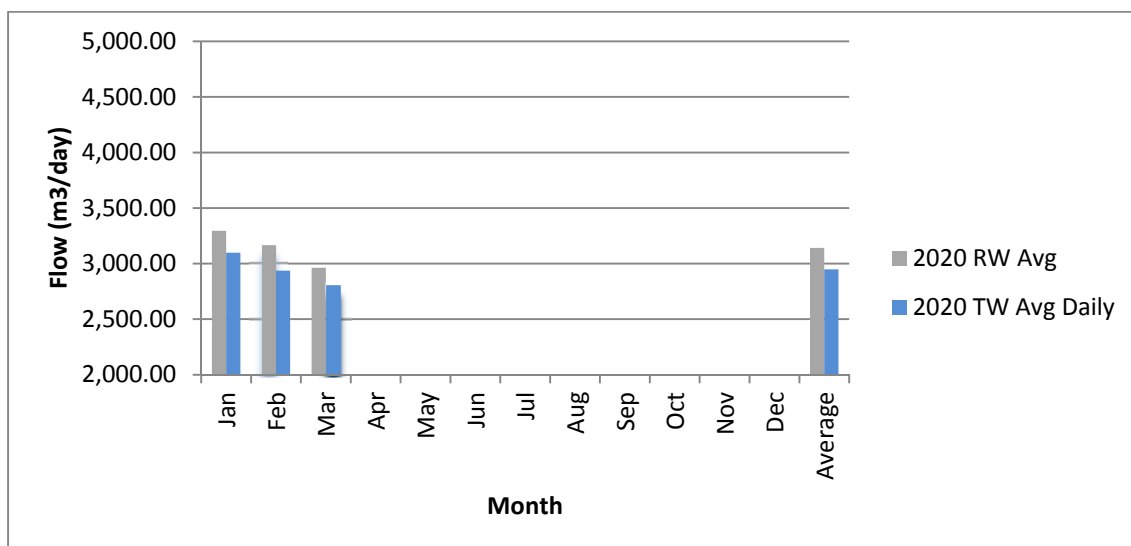
FIRST QUARTER:

There were no QEMS updates this month.

SECTION 4: PERFORMANCE ASSESSMENT REPORT

The plant is at 93.9% efficiency with the water taken from Lake Erie that is treated and sent to the distribution systems. Chart 1 below shows the raw water takings compared to the treated water distributed to the distribution system for the first quarter of 2020.

Chart 1: Average daily water takings compared to treated water distributed to the distribution system



Raw water is sampled on a weekly basis and tested for E. coli and Total coliforms as per regulatory requirements. There are no limits identified in the regulations for E. coli and total coliform found in the raw water source. Table 1 below identifies the sample results for the first quarter.

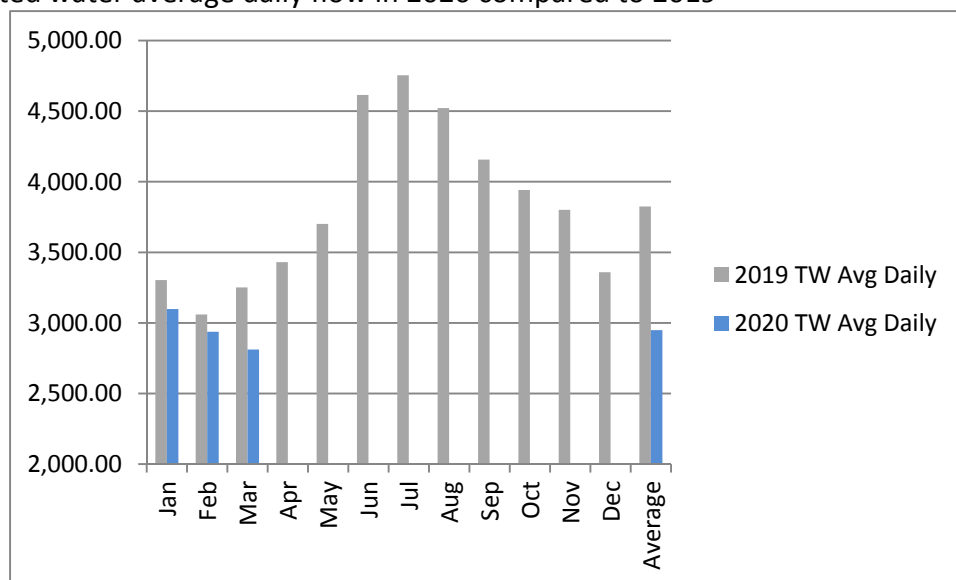
Table 1: Raw water sample results 2020

	# Samples	E. Coli Range (cfu/100mL)	Total Coliform Range (cfu/100mL)
January	4	9-100	210 - 10100
February	4	10-10	100 - 1600
March	5	10-100	60-4900

*NDOGT- no data, overgrown with target bacteria

The raw water is treated through membrane filtration and chlorine disinfection. The treated water is distributed to the systems it serves through the high lift pumps. The average daily treated water in the first quarter of 2020 was 2, 948.8m³/d. The average treated water flow in the first quarter of 2020 is down 8% when compared against the average daily flow in the first quarter of 2019. The Tri-County Drinking Water System is currently at 25.8% of its rated capacity. Chart 2 below depicts the treated water flow for 2020 compared to 2019 average daily flows.

Chart 2: Treated water average daily flow in 2020 compared to 2019



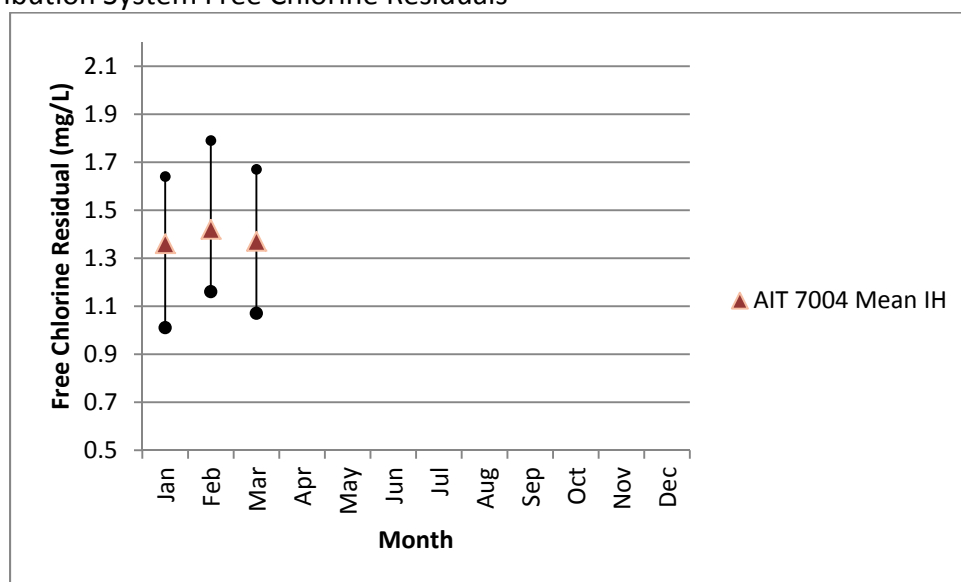
To ensure inactivation of viruses, bacteria and microorganisms the membrane filtration system is required to meet performance criteria for filtered water turbidity of less than or equal to 0.1 NTU in 99% of the measurements each month. The Tri-County Water Treatment Plant met all regulatory requirements for inactivation during the first quarter of 2020. Table 2 below shows the performance of each filter rack and the overall filter rack performance.

Table 2: Filter Rack Performance in 2020

	Rack 1 % Readings <0.1ntu	Rack 2 % Readings <0.1ntu	Rack 3 % Readings <0.1ntu	Rack 4 % Readings <0.1ntu	Overall Filter Performance (% readings <0.1ntu)
January	99.88	99.84	99.99	99.88	99.90
February	99.93	99.80	100.00	99.99	99.92
March	99.92	99.78	99.99	100.00	99.82

Along with turbidity, chlorine residuals are monitored throughout the treatment process by continuous online free chlorine analyzers. Residuals are maintained in order to provide adequate primary disinfection to meet inactivation of viruses, bacteria and microorganisms. The chlorine also provides adequate residuals in the distribution systems the treatment plant serves (secondary disinfection). Chart 3 below provides the online minimum, maximum and average readings of free chlorine provided to the distribution systems. All results have met regulatory requirements.

Chart 3: Distribution System Free Chlorine Residuals



On a weekly basis the treated water is tested for E. coli, Total Coliforms and heterotrophic plate count (HPC). The limit for Total Coliform and E. coli is zero; heterotrophic plate count (HPC) doesn't have a limit. This is an operational guide to initiate an action plan if HPC results are continuously high. Table 3 below shows the number of samples taken each month along with the range of results. All samples have met regulatory requirements.

Table 3: Treated water sample results for 2020.

	# Samples	Total Coliform Range (cfu/100mL)	E. coli Range (cfu/100mL)	HPC (cfu/100mL)
January	4	0 - 0	0 - 0	<10 – <10
February	4	0 - 0	0 - 0	<10 – <10
March	5	0 - 0	0 - 0	<10 – <10

The transmission main (distribution system) is sampled on a weekly basis at two locations for E. coli, Total Coliforms and heterotrophic plate count (HPC) to meet regulatory requirements. As with the treated water the limit for Total Coliform and E. coli is zero, heterotrophic plate count (HPC) doesn't have a limit. This is an operational guide to initiate an action plan if HPC results are continuously high. Table 4 below shows the number of samples taken each month along with the range of results.

Table 4: Distribution system sample results for 2020.

	# Samples	Total Coliform Range (cfu/100mL)	E. coli Range (cfu/100mL)	HPC (cfu/100mL)
January	8	0 - 0	0 - 0	<10 – <10
February	8	0 - 0	0 - 0	<10 – <10
March	10	0 - 0	0 - 0	<10 - <10

On a quarterly basis trihalomethanes are tested at two locations in the system. The first location is at the treatment plant prior to the water leaving the facility. The second location is at the end of the system, at the West Lorne Standpipe. Sampling from both locations provides information on how the THMs are forming in the system with retention time. There is an issue with elevated THMs in the distribution systems that the Tri-County Drinking Water System provides water to. Table 5 below provides the running average quarterly results; the running average limit for THMs is 100µg/L. All results are within regulatory requirements. However, THMs increase with increased retention time therefore THMs in the distribution system the WTP serves can be much higher, even reaching the regulatory limit.

Table 5: Trihalomethane sampling results.

	Limit (µg/L)	Treated Water THM Result (µg/L)	West Lorne Standpipe THM Result (µg/L)
April 2019		22	29
July 2019		22	32
October 2019		49	63
January 2020	100	18	31
Running Average	100	27.8	38.8

On a quarterly basis Haloacetic Acids (HAAs) are now required to be tested as per regulatory requirements. They are sampled at two locations in the system. The first location is at the treatment plant prior to the water leaving the facility. The second location is at the end of the system, at the West Lorne Standpipe. Sampling from both locations provides information on how the HAAs are forming in the system with retention time. Table 6 below provides the current running average quarterly results; the running average limit for HAAs is 80µg/L. All results are within regulatory requirements however, the limits are now enforced for 2020.

Table 6: Haloacetic Acid sampling results.

	Limit (µg/L)	Treated Water HAA Result (µg/L)	West Lorne Standpipe HAA Result (µg/L)
April 2019		5.3	15.3
July 2019		6.5	16
October 2019		26.2	36.8
January 2020	80	<5.3	14.3
Running Average	80	10.8	20.6

SECTION 5: OCCUPATIONAL HEALTH & SAFETY

FIRST QUARTER:

Due to the COVID-19 pandemic, which has been brought to the attention of all OCWA staff; precautionary protection measures have been implemented at all facilities. In addition to the mandatory PPE worn by all operational staff, the following additional steps were taken to assure safety:

- Additional PPE and supplies were sourced as applicable.
- The frequency of facility and vehicle cleaning and surface disinfection was increased and documented
- Staff re-organization was implemented to meet social distancing requirements where applicable.
- Facility access to essential contractors and/or delivery personal are closely monitored.

There were no additional Health & Safety issues identified during the first quarter.

SECTION 6: GENERAL MAINTENANCE

FIRST QUARTER:

JANUARY:

04: Air Liquide on site to deliver CO2.
 04: Completed repair of valve v3306 on rack #3.
 08: FloChem on site for chemical delivery.
 14: Changed pH and chlorine probes at analyzer AIT5006.
 23: Venture Automation was on site to check air manifold cards on racks.
 29: Eramosa on site to test High Lift pump #4 and do programming.

FEBRUARY:

03: Changed actuator on rack #3 valve V3*06 .
 06: Changed the belt on air makeup unit, and installed new coolant heat pump on low lift generator.
 10: Air Liquide on site to deliver CO2.
 13: Cone Crane on site for inspection of mono rail lifting device.
 18: Gerber Electric on site to install new motor on heat pump.
 19: Franklin Empire on site to calibrate milltronics.
 24: Air Liquide on site to deliver CO2.
 25: Installed new pH and ORP probe on neutralization tank.

MARCH:

02: Installed and calibrated new chlorine probe at chlorine analyzer AIT -2003.

04: Gardner Denver on site to do maintenance on compressors.

11: Lakeside on site to calibrate thermometer TIT 1403 at the low lift.

16: Air Liquide on site for CO2 delivery.

18: Flowmetrix on site to calibrate flow meters.

19: Installed and calibrated new pH probe on Chlorine analyzer 7001.

24: Anchem on site for chlorine (NaOCl) delivery.

SECTION 7: ALARM SUMMARY

FIRST QUARTER:

JANUARY:

05: Operator received alarm for AIT-7004 analyzer low chlorine residual. Operator attended the site, chlorine was 0.99 mg/l, tested analyzer and got a grab sample of 1.02 mg/l, calibrated meter to 1.02 mg/l and tested AIT-7001 chlorine analyzer it was 1.16 mg/l and grab sample was 1.31 mg/l calibrated this meter. Started high lifts to allow flow to distribution system and the analyzer is now reading 1.27 mg/l. Notified ORO.

31: Operator received page for PALL critical failure. Operator came on site and found that rack # 1,2,3 disabled due to high pressure. Able to get rack 1 & 2 running but rack 3 air scrub valve V3306 faulting unable get the valve working, notified ORO and asked to put rack 3 in idle and rack 4 into forward flow. Monitor system.

FEBRUARY:

08: Operator received alarm for third release valve stuck open, logged onto SCADA and checked alarms but alarm had cleared. Observed 2 low lift pumps running, storage tank was at 7.3m, shut down flow to Wallacetown in order for the storage tanks to fill quicker, Wallacetown was at 10.1m upon shutdown. Placed rack 4 into forward flow until second low lift pump was off. Observed flow to Wallacetown was double than the previous day, notified ORO. Storage tanks currently at 7.8m and one low lift pump currently pumping water to plant. Placed rack 4 back into RFR.

11: Operator received alarm, PALL system critical. Logged in on SCADA laptop and found Rack # 2 was idle and rack #3 was disabled due to high pressure. Reset the system, put rack # 2 and 3 on forward flow and started to produce water.

MARCH:

15: Operator got alarm for High Lift and Low Lift pump faulted. Operator attended the water plant and reset pumps and plant started to produce water. Completed rounds, checked all systems for normal operation. Suspected power flicker was the cause.

29: Operator received alarm for water storage low level. Arrived on site because could not remotely access the SCADA. After investigation still could not able access the SCADA, notified ORO, advised to reset SCADA and PLC. After resetting PLC the situation did not resolve. Notified ORO and was advised to call Eramosa. Eramosa was not able to remotely access system. After investigation found a UPS battery that's responsible for remote access was not functioning; replaced UPS with a power bar. System returned to normal. SCADA up and running and plant started to produce water again. Storage tanks level was below 6.4m. Tested remote access; works well now. Monitored system until out of alarm and reset dialer.

SECTION 8: COMMUNITY COMPLAINTS & CONCERNS

FIRST QUARTER:

There were no complaints or concerns this quarter.

**Tri-County Water Board Agreement including Amendments approved by Tri-County
Water Board on January 15, 2019 – Resolution #07-2019.**

THIS AGREEMENT made on the 22nd day of July, 2014

BETWEEN:

THE CORPORATION OF THE MUNICIPALITY OF WEST ELGIN
(hereinafter referred to as "West Elgin")

THE CORPORATION OF THE MUNICIPALITY OF SOUTHWEST MIDDLESEX
(hereinafter referred to as "Southwest Middlesex")

THE CORPORATION OF THE MUNICIPALITY OF DUTTON/DUNWICH
(hereinafter referred to as "Dutton/Dunwich")

THE CORPORATION OF THE MUNICIPALITY OF CHATHAM-KENT
(hereinafter referred to "Chatham-Kent")

-and-

THE CORPORATION OF THE VILLIAGE OF NEWBURY
(hereinafter referred to as "Newbury")

WHEREAS West Elgin, Southwest Middlesex, Dutton/Dunwich, Chatham-Kent, and Newbury (collectively referred to as the "Parties" and individually as a "Party") cooperatively recover, treat, and supply water to the Parties through a water recovery and treatment system located in West Elgin;

AND WHEREAS the Parties have agreed to terminate the Purchase Capacity Agreements of November 5, 1991 and the Management Agreement of November 5, 1991 and have consented to enter into new agreements with respect to the water recovery and treatment system of the Parties;

AND WHEREAS the water recovery and treatment system in West Elgin has been upgraded, improved and expanded;

AND WHEREAS the Parties wish to establish a separate and distinct joint municipal service board to govern the management of the System, as defined herein;

NOW THEREFORE IN CONSIDERATION OF the mutual covenants contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which is hereby irrevocably acknowledged, the Parties agree as follows:

Definitions

"Administering Municipality" or "Administering Authority" means the Party to whom the responsibilities of day to day management and administration have been assigned.

"Agreement" means this Agreement including all Schedules annexed hereto and any future amendments to the Agreement.

"Area Water Board" shall have the meaning ascribed thereto in Section 2 herein.

"Members" means Members of the Area Water Board duly appointed by the Parties.

"Operator" means any third party contractor duly appointed by the Area Water Board to operate all or part of the System.

"Regulatory Directive" means any Order or a letter from the Province of Ontario or any other regulatory authority directing the Area Water Board, the Administering Municipality, the Administering Authority or the Parties to take certain actions in connection with the System.

"System" means the water recovery, water treatment system and related watermains and more particularly described in Schedule "A" of this Agreement.

"System Service Rate(s)" shall have the meaning ascribed thereto in Section 46 herein.

Area Water Board

Pursuant to Section 202 of the Municipal Act, 2001, the parties shall establish a separate and distinct Joint Municipal Service Board, to be known as the Area Water Board (the "Area Water Board") composed of Members from each of the Parties. The Parties intend that Members of the Area Water Board shall act in the best interests of the System and all users of the System.

Purpose of this Agreement and Termination of Prior Agreements

By this Agreement, the Parties intend to provide for those matters which, in their opinion, are necessary to establish one comprehensive agreement that governs all matters relating to the Area Water Board and the System. The Parties hereby terminate the Purchase Capacity Agreements of November 5, 1991 and the Management Agreement of November 5, 1991.

4. Delegation of Control and Management

Subject to Section 2 and the other terms of this Agreement, the Parties hereby confer responsibility for the control and management of the System upon the Area Water Board pursuant to Section 202 of the Municipal Act, 2001. For clarity, each Party's distribution system shall not form part of the System and the management of each Parties' stand-alone distribution systems shall not be subject to this Agreement.

5. Allocation of Capacity to the Parties

The Parties hereby acknowledge that the capacity of the System shall be allocated and the percentages of the Parties' ownership of the System shall be allocated in accordance with Schedule "C" attached to this Agreement. The Parties' ownership of the System may change over time in accordance with this Agreement. For clarity, as of this date, the ownership of the System and the capacity allocation shall be based on the following proportions:

- (a) West Elgin shall be allocated 43.24% of the System;
- (b) Southwest Middlesex shall be allocated 24.72% of the System;
- (c) Dutton/Dunwich shall be allocated 19.14% of the System;
- (d) Chatham-Kent shall be allocated 7.95% of the System; and
- (e) Newbury shall be allocated 4.95% of the System.

6. Agency

The Area Water Board shall be the agent of the Parties for all actions taken within the Area Water Board's scope of authority. The Area Water Board shall not otherwise be the agent of the Parties.

7. Procedural By-Law

The Area Water Board shall pass a Procedural By-Law governing the procedural matters relating to the Area Water Board as required under Section 238 of the Municipal Act, 2001. The Procedural By-Law may supplement the terms set out in this Agreement but shall confirm the following points:

- (a) Each Party may appoint one (1) Member to the Area Water Board when the Area Water Board is formed. Commencing with this Agreement and on an annual basis thereafter on or before January 1st of each year each Party may appoint one (1) additional Member to the Area Water Board for every ten (10) percent of the total water consumption of the System consumed by that Party in the three (3) full previous years. Each Party may appoint one of their Members who is not an elected official. For clarity, if a Party has only one (1) representative, that representative is not required to be an elected official. Apart from the one (1) Member appointed by a Party who is not an elected official, all other Members representing that Party must be elected officials. The initial appointments shall be made no later than sixty (60) days from the date of this Agreement and shall be for the remainder of the term of the Municipal Councils. When each new Council begins its term, the Parties shall appoint its Members of the Area Water Board at the beginning of the term of Council;
- (b) The term of office of an Area Water Board Member cannot exceed the balance of the term of Council. As a general rule, the appointment shall be for the balance of the term of the municipal Council, subject to each Party's right to revoke any appointment. Despite this restriction, Members may be re-appointed and the term of each Area Water Board Member continues until his or her successor has been appointed;
- (c) Each Party will appoint Area Water Board Members as often as necessary to ensure that vacancies are minimized and that the functions of the Area Water Board will be facilitated;

- (d) A Party may revoke the appointment of any Area Water Board Member appointed by it for such reasons as it considers advisable, but may not leave any such position vacant for more than fifteen (15) days;
- (e) An alternate member appointed by a Party may attend a meeting in place of any Area Water Board Member appointed by that Party;
- (f) Each Area Water Board Member shall have one vote with respect to any question;
- (g) Notwithstanding Subsection 7(a), a Party may not have more than fifty (50) percent of the total number of Members, nor more than fifty (50) percent of all eligible votes for the Area Water Board;
- (h) Based on the above, the initial number of Members and votes apportioned to the Parties comprising the Area Water Board will be the following based on the 2010- 2012 average consumption numbers as noted in Schedule "B";

Party	Members/votes
West Elgin	Four (4)
Southwest Middlesex	Three (3)
Dutton/Dunwich	Three (3)
Chatham-Kent	One (1)
Newbury	One (1)

- (i) Members will not receive any remuneration from the System, other than for expenses, which shall require approval of the Area Water Board. This does not prevent a Member who is also a member of a municipal Council or any other board from receiving remuneration as a municipal Councillor or member of any other board;
- (j) If additional municipalities are added to the System, or a municipality wishes to withdraw from the System, or in the event of municipal restructuring, membership in the Area Water Board may be altered along with such terms and conditions as determined by a simple majority vote of the Area Water Board at a meeting called for that purpose;
- (k) The quorum for any meeting of the Area Water Board shall be more than fifty (50%) per cent of the Members. An alternate Member shall be included when determining quorum for any meeting of the Area Water Board;
- (l) The Chair and Vice-Chair of the Area Water Board will be elected from among the Members to serve for a one (1) year term. The Chair and Vice-Chair shall not be from the same municipality. Elections will be conducted during the January meeting annually;
- (m) In the absence of the Chair, the Vice-Chair will act as Chair of the Area Water Board;
- (n) Each Member, (or Alternate Member), in attendance will have one (1) vote. The Board will make decisions by a simple majority vote, except where otherwise specified in this Agreement;
- (o) The Area Water Board will meet quarterly, or more often as requested by a majority of the

Members, or at the call of the Chair or Vice-Chair. A minimum of five (5) working days' notice of meetings will be provided, unless the meeting has been called on an emergency basis. At the January election meeting an annual schedule of meeting dates will be determined, subject to the conditions above;

- (p) The Parties shall have the right to call a Meeting of the Area Water Board by providing written notice of the meeting to each of the other Parties. The Parties shall provide five (5) working days' notice of the Meeting, unless the Meeting has been called on an emergency basis. The requisite notice for all meetings shall include a summary of the business to be transacted at the meeting. The summary of the business to be transacted at the meeting shall be sufficient for all Parties to determine the business that will be addressed at the meeting, failing which the business transacted at the meeting shall be null and void unless otherwise agreed by the Parties;
- (q) The Parties acknowledge that the provisions of the Municipal Act relating to in camera and open meetings in Sections 239 to 246 inclusive shall apply to the meetings of the Area Water Board;
- (r) Meetings of the Area Water Board shall be conducted in accordance with Roberts Rules of Order, except as set out in this Agreement or as required by law; and
- (s) Minutes of all Meetings shall be circulated without any of the Parties reviewing the content of the Minutes prior to distribution. Any objects to the content of the Minutes shall be noted by the objecting Party at the following meeting.

8. Proceeds of Disposition

The proceeds of disposition of any surplus property used for the System shall be applied in a manner determined by the Area Water Board.

9. Duties of the Area Water Board

The Area Water Board shall be responsible for the management and control of the System, subject only to the duties specifically delegated to the Administering Municipality or the Administering Authority. Without limiting the above, the Area Water Board shall be responsible for:

- a. Obtaining approvals;
- b. Contracting for services;
- c. Entering into agreements with individuals, corporations and governments;
- d. Operating bank accounts and carrying out other financial transactions;
- e. Approval of all operational policies for the System;

- f. Approving and controlling annual Operating Budgets and Capital Budgets;
- g. The setting of the System Service Rates;
- h. Consideration and approval of New Capacity Proposals and New Capacity Budgets and the draft Financial Plan;
- i. Receive and review all Ministry correspondence and reports relating to the Area Water Board and the System;
- j. Appointment of the Administering Municipality, the Administering Authority and Operator, if applicable, for the System;
- k. Determining matters relating to permitting new municipalities to join the System or to receive water from the System;
- l. Acquiring new property, or disposing of surplus property for the System;
- m. Setting cost sharing formulas for payments by the Parties for projects relating to the System;
- n. Determining the level of any Reserve Fund(s) and the manner of maintaining such fund(s);
- o. Preparing and submitting regular reports to the Parties;
- p. All personnel matters including hiring, termination, compensation and all other relevant personnel matters for employees of the Area Water Board;
- q. Considering all applications for large service connections of water main extensions to the System;
- r. Procurement of insurance coverage for the Members;
- s. Entering into agreements with individuals, corporations and other governments or agencies for the activities listed above;
- t. Any other duties and functions required to be managed for the System unless those functions are specifically delegated to the Administering Municipality or the Administering Authority.

Unless an agreement is within the Administering Municipality's or the Administering Authority's scope of authority, all agreements for the System shall be entered into by the Area Water Board and shall be signed by the Chair of the Area Water Board after authorization by resolution of the Area Water Board.

10. Appointment of Administering Municipality and Administering Authority

The parties hereby appoint West Elgin as the initial Administering Municipality. The Administering Municipality may, at any time, be removed and replaced by one of the other parties or an independent Administering Authority by a majority vote of members of the Area Water Board, or by an Order of the Ontario Municipal Board. In the event of an Ontario Municipal Board Order replacing the Administering Municipality, the new Administering Municipality or Administering Authority, as the case may be, cannot be replaced by a vote of the Area Water Board within three (3) years of the date of the said Order unless the Administering Municipality is in default under this Agreement and has failed to cure such default within a reasonable time of receiving a default notice from one or more of the Parties.

11. Duties of the Administering Municipality or the Administering Authority

The Administering Municipality or the Administering Authority may only execute agreements on behalf of the Area Water Board that are within its authority under this section. Unless otherwise agreed by the parties, the administrative functions are as follows:

- (a) keeping separate books, records and accounts. Such books, records and accounts shall kept separately from the books, records and accounts of any of the Parties;
- (b) liaison with Ministry of the Environment staff on matters of compliance;
- (c) liaison with any Operator and administering any Operating Agreement, if applicable;
- (d) negotiating agreements with any Operator and administration of such agreements, subject to the approval of such agreements by the Area Water Board;
- (e) preparing annual Capital Budgets, annual Operating Budgets, all other Budgets as well as the proposed System Service Rates;
- (f) billing and receiving payments from the Parties in accordance with the approved System Service Rates and volumes of water taken;
- (g) making payments to any Operator;
- (h) making payments on any provincial capital debt and other financing payments (principal and interest payments);
- (i) preparing and keeping Minutes of Area Water Board Meetings and circulating the Minutes in a timely manner to the Members on the Area Water Board and the Parties;
- (j) administering any Reserve Funds;
- (k) raising capital financing;
- (l) invoicing the Parties for amounts payable under this Agreement;
- (m) operating bank accounts for the purposes set out in this Section 11;
- (n) making day-to-day operation and maintenance decisions and implementing or providing

for the implementation of those decisions, where they are not being implemented by the Operator, up to a maximum value of Ten Thousand (\$10,000.00) Dollars or any other value as determined by the Area Water Board from time to time;

- (o) providing quarterly and annual reports to the Area Water Board regarding water use and a comparison of the budgeted versus actual water use;
 - (p) provide quarterly and annual financial reports including budgeted versus actual operating and capital revenue and expenses; and
 - (q) such other functions as are recommended and approved by the Area Water Board.
12. The management arrangements in this Agreement and the delegation of tasks to the Administering Municipality, the Administering Authority or the Area Water Board as set out in this Agreement may be amended by a three-quarter (3/4) majority vote of the Members of the Area Water Board in a meeting called for this purpose.

13. Compliance with Provincial Licences

All Parties are jointly and severally responsible for compliance with Regulatory Directives for the System as well as any approvals and operating licences for the System.

Obligations of Municipalities

14. Each Party shall repair, maintain and keep in good state of repair, and in accordance with good engineering practices, its water distribution system and any common elements within their Municipal boundaries that belongs to or is under the control of the Party and that is supplied with water from the System.
15. Each Party shall use its best efforts to prevent the contamination of any kind to enter its water distribution system. In the event that any contamination enters the distribution system, the Party shall forthwith take such steps as may be necessary to correct such contamination and to prevent such a condition in the future.
16. In the event that a Party shall be required to install recording equipment in its distribution system, the Party shall permit System staff, or its servants or agents, access at or near the point the primary part of the System enters the Party's distribution system, to employ such equipment at any time or times for the purpose of reading or testing same.
17. Each Party shall provide to the Area Water Board its water demand forecast by September 1st of each year for the subsequent year.
18. The Area Water Board may charge interest to the Parties at 1.25% per month (or 15% per annum) or such other rate as determined by the Area Water Board, if amounts due to it from a Party are not paid within thirty (30) days.

19. Auditing of Area Water Board Records

The Area Water Board shall direct that its Records be audited at least annually or upon the request of any of the Parties. In the event that one of the Parties requests an audit over and above the annual audit required under this Section 19, that Party shall bear the costs of the requested audit.

20. Auditing of Administering Municipality Records

The Records of the Administering Municipality and/or the Administering Authority which pertain to its responsibilities under this Agreement shall be audited at least annually or upon the request of any of the Parties. In the event that one of the Parties requests an audit over and above the annual audit required under this Section 20, that Party shall bear the costs of the requested audit.

21. The Area Water Board shall establish and approve the annual remuneration of the Administering Municipality or Administering Authority by a simple majority vote.

Budget Approval

22. The Administering Municipality or the Administering Authority will, in accordance with guidelines prepared by the Area Water Board, prepare and submit to the Area Water Board:

- (a) a draft Operating Budget for the next following calendar year;
- (b) a draft Capital Replacement and Rehabilitation Budget for that same period;
- (c) a draft System Service Rate; and
- (d) a draft Financial Plan for a minimum of five (5) years.

23. The draft budgets and System Service Rate must be submitted by the Administering Municipality or Administering Authority to the Area Water Board no later than October 15th of the year preceding the year for which the Budgets or System Service Rates are prepared.

24. The Area Water Board will review and approve an annual budget and System Service Rate.

Operating Budget

25. Operating budgets will include both direct and indirect costs normally associated with operating and maintaining the System, including routine and minor replacement parts, and the costs incurred by the Administering Municipality or Administering Authority in administering

the System as well as the costs of the Operator. Operating costs will exclude those items agreed by the Area Water Board to be capital. The Operating Budget prepared and approved shall detail all items of expected revenue and expense, in accordance with accepted accounting practice and as may be required by the Area Water Board.

26. In the event that the Area Water Board does not approve a draft Operating Budget for a year prior to December 1st of the year previous the year for which the draft Operating Budget is prepared, then the default new Operating Budget will be the prior year's Operating Budget, adjusted by the increase over a twelve-month period for the All-items Index (1981 = 100) for Ontario in Table 8, Consumer Price Index Major Components (Not Seasonally Adjusted), of Consumer Price Indexes published by Statistics Canada (Catalogue No. 62-010-XPB) for the most recent twelve-month period for which the Index is available ending prior to November 1st of the year prior to the year for which the draft Budget is proposed. The Area Water Board may from time to time choose a new Index for the purposes of this provision. If the Area Water Board subsequently approves the draft Budget, such approved Budget shall supersede the default Budget.
27. In the event that there are payments required to be made under an agreement with an Operator, and the applicable agreement provides for higher payments than would be covered by applying the twelve-month increase in the Index referred to in section 26 to the previous year's payments under the agreement with the Operator or its predecessor, the default Operating Budget will be further increased by an amount sufficient to cover the payments to the Operator.

Capital Replacement and Rehabilitation Budget (Capital Budget)

28. The Capital Replacement and Rehabilitation Budget will project capital replacement and rehabilitation expenditures in accordance with all legislative requirements for the System.
29. In the event that the Area Water Board does not approve a draft capital budget for a year prior to December 1st of the year prior to the year for which the draft Capital Budget is proposed, then the default new Capital Budget will be the lesser of the capital costs established in the Financial Plan or the Capital Budget for the previous year (for which the draft Capital Budget is prepared), adjusted by the increase over a twelve-month period in the All-items Index (1981=100) for Ontario in Table 8, Consumer Price Index Major Components (Not Seasonally Adjusted), of Consumer Price Indexes published by Statistics Canada (Catalogue No. 62-010-XPB) for the most recent twelve-month period for which the Index is available ending prior to November 1st of the year preceding the year for which the draft budget is proposed. The Area Water Board may from time to time choose a new Index for the purposes of this provision. If the Area Water Board subsequently approves the draft Capital Budget, such approved budget shall supplant the default Capital Budget.
30. Capital Repairs – Emergency Requirements

This Section 30 shall only apply when there is an urgent risk to the system or an emergency repair that must be completed. In the event that an emergency replacement or

rehabilitation expenditure must, in the opinion of the Administering Municipality or the Administering Authority, be made during the course of the year, to address an emergent or urgent risk to the System, that is not provided for in the Capital Replacement and Rehabilitation Budget, or an expenditure is required under a statute that is not provided for in the Operating Budget or Capital Replacement and Rehabilitation Budget, then the Area Water Board or Administering Municipality or the Administering Authority may incur such expenditure and the Area Water Board will recover it as an addition to the Capital Replacement and Rehabilitation Budget in one or more subsequent years, to the extent that it is not provided for in the Capital Replacement and Rehabilitation Reserve Fund

31. Area Water Board Approval

The Area Water Board shall take all necessary steps to have the draft Budgets completed and approved by October 31st in each preceding calendar year. For clarity, the draft Budgets shall not be submitted to the Parties' Municipal Councils for approval as the Area Water Board shall have the sole responsibility for approving the draft Budgets.

Water Billing and Collection

32. The Area Water Board (through the Administering Authority or Administering Municipality) shall invoice the Parties at the System Service Rates for all costs relating to the System in accordance with this Agreement. Each Party shall be responsible to bill and collect fees for the services provided by the System to individual properties within its geographic boundaries.
33. Subject to section 34, each Party shall be invoiced herein for the water used in the System in accordance with the following:

(a) Chatham-Kent

Chatham-Kent shall be invoiced for the monthly water which goes through the Chatham-Kent Meter. Chatham-Kent hereby agrees to a minimum annual purchase of water of sixty-six thousand three hundred and eleven (66,311 m³) cubic metres from the System. Southwest Middlesex will read this meter and supply the reading to the Administering Municipality or Administering Authority.

(b) Dutton/Dunwich

Dutton/Dunwich will be invoiced for the total water which goes through the Eagle meter, Marsh Line meter and Pioneer Line Meters. These meters will be read by staff from the Operating Authority. In return for being granted full ownership of the Iona Chamber/Interconnect, Dutton/Dunwich hereby agrees to a minimum annual purchase of water of two hundred and two thousand four hundred and twenty-two (202,422 m³) cubic metres from the System. This minimum purchase volume shall be in excess of the volume of water obtained by Dutton/Dunwich through the said Iona Chamber/Interconnect.

(c) Southwest Middlesex

Southwest Middlesex will be invoiced for the total water which goes through the Southwest Middlesex meter, less the amounts that are invoiced to Chatham-Kent and the Village of Newbury. The meter located at the reservoir shall be read by the Operating Authority. Southwest Middlesex hereby agrees to a minimum annual purchase of water of two hundred and eighty-one thousand one hundred and thirty-five (281,135 m³) cubic metres from the System. For the purposes of this covenant, the water volumes supplied by Southwest Middlesex to Chatham-Kent and the Village of Newbury from the System shall not be considered.

(d) Village of Newbury

The Village of Newbury shall be invoiced for the monthly water which goes through the Village of Newbury meter. The Village of Newbury hereby agrees to a minimum annual purchase of water of thirty-four thousand and sixty-five (34,068 m³) cubic meters from the System.

Southwest Middlesex will read this meter and supply the reading to the Administering Municipality or Administering Authority.

(e) West Elgin

West Elgin shall be invoiced for the total water that goes through the Marsh Line West Meter, Eagle West Meter, Finney St. Meter, Silver Clay Meter and the Consumption of West Lorne & Graham Road (South of West Lorne) distribution water customers plus an average system loss as determined by the Area Water Board. The Area Water Board shall establish the initial average system loss percentage. The Area Water Board shall review the annual system loss percentage annually and shall make amendments to the annual system loss percentage as necessary. West Elgin hereby agrees to a minimum annual purchase of water of three hundred and seventy-eight thousand seven hundred and twenty-one (378,721 m³) cubic metres from the System.

(f) The Parties acknowledge that the minimum purchase volumes set out in this Section 33 represent seventy-five (75%) per cent of the average consumption numbers for each Party in 2011, 2012 and 2013. The said minimum purchase volumes have been determined based on the calculations set out in Schedule "D" of this Agreement. If in any year the total volume of water purchased by any of the Parties is less than the minimum specified above, the Party shall pay to the Area Water Board the difference between (i) the amount achieved by multiplying the rate for water and the minimum purchase volume, and (ii) the total of the monthly charges paid by the Party during the applicable year.

(g) The Parties agree that should there be significant new development or a significant closure of a water consumer within the boundaries of any of the Parties, then that Party shall have the right to request a review of the minimum

annual purchase volume specified in this agreement and the Area Water Board shall agree to such a review.

34. Notwithstanding sections 33(a) and 33(f), the Area Water Board (through the Administering Authority or Administering Municipality) shall invoice Southwest Middlesex for:
- a. the monthly water which goes through the Chatham-Kent Meter, until such time as an agreement is reached between Southwest Middlesex and Chatham-Kent with respect to Chatham-Kent's use of the Southwest Middlesex water distribution system, at which time section 33(a) shall come into effect; and
 - b. the monthly water that goes through the Village of Newbury Meter, until such time as an agreement is reached between Southwest Middlesex and the Village of Newbury with respect to the Village of Newbury's use of the Southwest Middlesex water distribution system, at which time section 33(f) shall come into effect.

Chatham-Kent hereby agrees to pay Southwest Middlesex for the monthly water that goes through the Chatham-Kent Meter until such time as section 33(a) comes into effect; and the Village of Newbury hereby agrees to pay Southwest Middlesex for the monthly water that goes through the Village of Newbury Meter until such time as section 33(f) comes into effect.

35. Chatham-Kent and Southwest Middlesex and the Village of Newbury and Southwest Middlesex shall have until 11:59 pm on December 31, 2019, to reach the agreements referred to in section 34(a) and (b). In the event that an agreement between Chatham-Kent and Southwest Middlesex, or an agreement between the Village of Newbury and Southwest Middlesex, cannot be reached within the aforementioned time period, the affected parties, be it Chatham-Kent and Southwest Middlesex or the Village of Newbury and Southwest Middlesex, hereby agree to refer the matter to binding arbitration. The following provisions apply in the event of an arbitration between Chatham-Kent and Southwest Middlesex, an arbitration between the Village of Newbury and Southwest Middlesex or an arbitration between Chatham-Kent, the Village of Newbury and Southwest Middlesex:
- a. The rules and procedures to be used by the arbitrator shall be as set out in the Arbitrations Act, (Ontario), as amended, and every statutory provision that may be substituted for it or for any provision in it. The parties agree that the decision of the arbitrator shall be final and binding and that there shall be no appeal from it. The arbitrator shall have the discretion to award the non-offending party its costs and expenses incurred in connection with or as a result of such arbitration and on a substantial indemnity basis. The decision and award of the arbitrator may be entered and enforced in the relevant courts having jurisdiction.

- b. Each party to the arbitration shall pay an equal share of the costs of the arbitrator and each party shall be responsible for its own costs including but not limited to legal, engineering and other expenses.

Reserve Fund

- 36. A Capital Replacement and Rehabilitation Reserve Fund will be held by the Area Water Board for the purpose of ensuring that sufficient funds are held to properly maintain the System. The Area Water Board will hold this fund in a dedicated interest-bearing account.
- 37. The Area Water Board may collect funds for the said Reserve Fund through the System Service Rates, or in some other manner that the Area Water Board may decide from time to time.

New Capacity in the System

38. Optimization Study

Prior to any capital expansion or increase in capacity for the System, an Optimization Study will be undertaken for the possible reallocation or more efficient use of the existing System.

39. System Capacity

The Area Water Board shall, from time to time, review the capacity requirements for the System and make recommendations to the Parties to reallocate capacities as may be identified by that review, subject to Section 38 herein.

- 40. Schedule "C" sets out each Party's percentage ownership of the capacity in the System. Schedule "C" shall be amended from time to time to reflect changes in each Party's ownership of the said capacity. Each Party will be allowed to draw water up to the maximum capacity that was originally purchased by that Party in the System as shown in Schedule "C", subject only to that Party's agreement to sell capacity to one of the Parties or to a new municipality that is accepted into this System by the Area Water Board.
 - (a) The reserve capacity in the intake and/or the System over and above the total purchased by the Parties shall be allocated by the Area Water Board to either the parties to this Agreement or additional parties who connect to the System. The Area Water Board shall establish the purchase price. The purchase price

shall be set at fair market value and a professional opinion shall support the purchase price. Any money received from the sale of the Reserve Capacity shall be placed into a capital Reserve in accordance with the Reserve Fund section of this Agreement.

- (b) Any party to this Agreement may sell a portion of their original capacity as identified in Schedule "C" to another Party to this agreement or purchase capacity from another Party to this Agreement, subject to the approval of the Area Water Board and compliance with this Agreement. Any such transfer of capacity shall occur at fair market value and a professional opinion shall support the value assigned to the transaction. The Area Water Board shall establish the fair market value of the capacity based on this information.
- 41. The Area Water Board shall prepare, or have prepared, a draft Financial Plan for the System, forecasting future capital expansion requirements for the System over a minimum five (5) year period. The draft Financial Plan will be developed based on demand forecasts by the Parties. The draft Financial Plan will be updated or reviewed every year.
 - 42. Based on the draft Financial Plan, the Area Water Board will prepare, or have prepared, a new capacity capital plan to address future new capacity capital requirements for the System over a ten (10) year period or such other time period determined by the Area Water Board.
 - 43. The Area Water Board shall prepare, or have prepared, the first draft Financial Plan and first new draft Financial Plan within one (1) year of the date of this Agreement.
 - 44. Subject to Sections 36 to 39 herein, the Area Water Board will provide new capacity on an as-required basis sufficiently in advance of growth as to not impede development for any Party. In any event, the Area Water Board will initiate the design and construction of works required for System optimization, or capital expansion of the System, when recorded water flow demand on the System reaches eighty-five (85) percent of the System capacity, or as otherwise determined by the Area Water Board.
 - 45. The Area Water Board shall decide how to finance and recover the costs of providing new capacity.
 - 46. No Party will make changes or permit changes to works connected to the System that will have an adverse effect on the System or result in a larger demand being placed on the System than the System is designed to meet, and for the purposes of this section, the Area Water Board may, from time to time, allocate and reallocate any unallocated capacity in the System among the Parties.

47. Further work required to expand the System's capacity beyond the work described in "Schedule A" would require the participation of only those municipalities that require additional capacity in excess of their allocated capacities.

System Service Rates

48. The Area Water Board will establish a "System Service Rate" for the System that will be charged to the Parties to pay the costs of the System. The System Service Rate will be amended from time to time as agreed to by the Area Water Board. The System Service Rate (in dollars per cubic metre) will be determined on the basis of dividing the total budgeted costs of the System by the total forecast water usage. The costs of the System shall include:

- (a) the Operating Budget costs;
- (b) the Capital Budget costs;
- (c) the Reserve Fund costs;
- (d) the cost of repaying any capital debt and interest for the System; and
- (e) any other costs that the Area Water Board decides to include in the System Service Rate.

49. In the event that the Area Water Board does not approve the draft System Service Rate for a year prior to October 31st of the previous year, the lesser of the rate established in the proposed System Service Rate or the previous System Service Rate plus an increase equal to the average rate increase in the Consumer Price Index would apply until such times as that year's System Service Rate is approved by the Board.

50. New Municipalities (Parties)

A new municipality to the System shall be required to purchase capacity in the System prior to: (i) becoming a Party to this Agreement; (ii) appointing Members to the Area Water Board; and (iii) connecting to the System. Admission of a new municipality to the System will require a simple majority vote of the Area Water Board. The Area Water Board's approval of the new municipality shall be subject to the new municipality's purchase of capacity in the System. Where the requests of any new municipality for a volume of water from the System is approved by the Area Water Board, and such supply of water would affect the System Service Rate adversely for the Parties, the Area Water Board shall require a capital payment from the new municipality in order to stabilize the System Service Rate to the level which existed prior to the approved entry of the new municipality to the System. Further, any new municipality must first become a Party and agree to be bound by all the terms and conditions of this Agreement. If the entry of a new municipality would cause the System Service Rate to decrease, such a benefit must be conferred rateably upon all Parties based on their capacity allocation.

51. Parties Leaving the System

- (a) Any Party wishing to withdraw from the System shall provide the other Parties with a minimum of eighteen (18) months' notice of its intention to do so. Such notice is to be effective on December 31st of the year in which the eighteen (18) month period ends. Any such Party shall continue to be responsible annually for its portion of the outstanding capital debt of the System as it exists at the date of departure. The Party that leaves the System shall pay an annual charge based on the percentage calculation of their share of the total flows from the System during the final full year in which the Party was a participant in the System (Party's total annual flow divided by the Total System flow times the annual debt charge), or the percentage calculation of their share of total flow, whichever is the greater. However, if arrangements can be made for a new municipality or another existing Party to assume the capital obligations of an existing Party, then the existing Party shall be released from such obligations. A Party leaving the System will not be entitled to any capital payment or payment of equity in the System upon leaving. Such Party may be entitled to a proportion of any Reserve Fund in the sole and absolute discretion of the Area Water Board, such payment to be based upon: (i) the proportions referred to in Schedule "B"; (ii) the amount of the Reserve Fund; (iii) the liabilities of the System; (iv) any need to expand, maintain or repair the System in the future and corresponding costs of same; and (v) such other factors as the Area Water Board may reasonably consider having regard to the best interests of the System. A party that leaves the System will not be responsible at date of departure from the System for debt incurred after the departure date but shall remain responsible for its share of the debt relating to the System as of the date of departure.
- (b) A party that has given notice of its intention to withdraw from the System shall be responsible for the cost of a modelling study by a qualified and independent engineering body to determine what, if any, operational changes to the System are required to ensure the safety and viability of the System.
- (c) The Party referenced in 49(b) above shall submit a proposed Terms of Reference for the modelling study and the name of the engineering body proposed to undertake the study to the Area Water Board which shall approve or reject the proposals. Should the Area Water Board reject the proposal(s), it shall state in detail the reasons for its rejection. The Party referenced in 49(b) shall then revise its proposal(s) and make a subsequent submission to the Area Water Board. Should the Area Water Board again fail to approve the subsequent submission, the issue shall be resolved through the Dispute Resolution process described in Section 52.
- (d) A party withdrawing from the System shall in addition, be responsible for capital costs which have been identified in the modelling study.
- (e) In the event that a Party leaves the System, the Party shall transfer all of its right, title and interest in its ownership of the System to the Parties remaining in the System rateably in accordance with their ownership of the capacity based on Schedule "C", as amended from time to time. The remaining Parties shall not be required to remit payment to the Party withdrawing from the System for the transfer of the withdrawing Party's capacity contemplated in this Section 49(e).

52. Prohibited Actions

Unless otherwise determined by the Parties or by this Agreement, the Parties hereby agree as follows:

- (a) No additional municipality shall be admitted as an owner or user of the System;
- (b) Apart from the System's unallocated capacity, the capacity allocations set out in Section 5 and Schedule "C" herein shall not be reallocated; and
- (c) There shall be no sale or transfer of all or part of the System.

53. Parties Right to Information

The Parties acknowledge that the following information relating to the System shall be fully disclosed and shared among the Parties:

- (a) Ministry Orders (MOE, Labour, etc.);
- (b) Serious Occurrence Reports;
- (c) Ministry Inspection Reports;
- (d) Monthly Use/Capacity Calculations;
- (e) Annual Report;
- (f) Correspondence re: System operations;
- (g) Legal correspondence;
- (h) Annual Available Capacity Report;
- (i) Operator's Reports;
- (j) Annual Proof of Insurance;
- (k) Quarterly Financial Report; and
- (l) Administering Municipality or Administering Authority Report.

(the "Listed Information").

In the event that the Administering Municipality or the Area Water Board receives a request for the Listed Information from any of the Parties, the Listed Information shall be delivered to the requesting party within fifteen (15) business days. If the request is vague or requires clarification, the Administering Municipality or the Area Water Board shall, within fifteen (15) business days, send to the requesting party a notice for more particulars about the request. Assuming a clear request is made, the Listed Information shall be provided within the timelines contemplated herein. If the Listed Information is relevant to a decision of the Area Water Board, the decision shall not be made until such time as the Listed information has been produced. The Parties shall have a further general right to all information relevant to the System.

Dispute Resolution

- 54. All disputes, claims, controversies or questions arising out of, under, or in connection with, or in relation to this Agreement or its interpretation, performance or non-performance, or any breach of it, shall be submitted to binding arbitration as follows:

- (a) the Party and the Area Water Board may agree to appoint a single arbitrator, who has experience in drinking water treatment systems whose decision shall be final and binding; or
 - (b) in the event that the Party and the Area Water Board cannot agree upon a single arbitrator, then the Party shall select one individual and the Board shall select one individual and the resulting two individuals shall select a third individual who shall be the sole arbitrator. If either the Party or the Area Water Board fails to appoint a nominee within fifteen (15) days after receipt of a written notice from the other of them requiring that such appointment be made, then the individual chosen by either the Party or the Area Water Board, as the case may be, shall be the sole arbitrator.
55. In all other respects, the rules and procedures to be used by the arbitrator shall be as set out in the Arbitrations Act, (Ontario), as amended, and every statutory provision that may be substituted for it or for any provision in it. The parties agree that the decision of the arbitrator shall be final and binding and that there shall be no appeal from it. The arbitrator shall have the discretion to award the non-offending party its costs and expenses incurred in connection with or as a result of such arbitration and on a substantial indemnity basis. The decision and award of the arbitrator may be entered and enforced in the relevant courts having jurisdiction.
56. The Party(ies) who initiate the arbitration shall pay 50% of the costs of the arbitrator and the Area Water Board shall be responsible for the remaining 50%. Each Party shall be responsible for its own costs including but not limited to legal, engineering and other expenses.

Default

57. If the Administering Municipality is in default of this Agreement, the other Parties shall have the right to provide the Administering Municipality with notice of default ("Default Notice"). The Default Notice will set out the particulars of the default and specify the actions to be undertaken to remedy the default. The remedial efforts shall be completed within 30 days of the Administering Municipality's receipt of the Default Notice or such reasonable time that may be required to remedy the default, failing which any non-defaulting Party shall have the right to make application to the Ontario Municipal Board to replace the Administering Municipality with one of the non-defaulting Parties or an Administering Authority deemed acceptable by the Ontario Municipal Board. If the Administering Municipality is also the Operator of the System, any non-defaulting Party shall also have the right to apply to the Ontario Municipal Board for the removal of the Administering Municipality as the System's Operator.

Liabilities Upon Dissolution

58. The Parties hereby confirm that upon dissolution of the Area Water Board, all rights, claims, undertakings, obligations, assets and liabilities of the Area Water Board shall vest in the Parties and shall be shared by the Parties in accordance with each Party's ownership

interest in the capacity of the System as of the date of the Area Water Board's dissolution. The Parties' current ownership interests in the System are set out in Schedule C.

GENERAL

59. This Agreement and its interpretation shall be governed by the laws of the Province of Ontario.
60. The headings and captions appearing in this Agreement have been inserted for convenience of reference only and in no way define, limit or enlarge the scope or meaning of this Agreement or a provision hereof.
61. No amendment to this Agreement shall be effective unless in writing and signed by all Parties to this Agreement.
62. This Agreement constitutes the entire agreement between the Parties and supersedes all previous or contemporaneous communications, representations or agreements. No oral agreement or conversation with any officer, agent or employee of any of the Parties, either before or after the execution of this Agreement, shall affect or modify any of its terms or obligations herein contained.
63. This Agreement shall enure to the benefit of the Parties and be binding upon their respective successors and assigns.
64. Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to that jurisdiction, be ineffective to the extent of such prohibition or unenforceability and shall be severed from the balance of this Agreement, all without affecting the remaining provisions of this Agreement or affecting the validity or enforceability of such provisions in any other jurisdiction.
65. The failure on the part of one Party to enforce its rights as to any provision of this Agreement shall not be construed as a waiver of its rights to enforce such provision in the future.
66. Any notice required to be or maybe given or made by one of the Parties hereto to the other shall be in writing and shall be delivered to the office of the Clerk of each of the other Parties and may be delivered by hand or by courier, by registered mail, or by facsimile or e- mail that provides a record of the text of the notice, addressed to the party for whom it is intended at their address or at the last address of which the sender has received notice in accordance with this Section. Any notice shall be deemed to be effective five (5) days from the day it is mailed or the date of delivery if the notice is delivered by courier, facsimile or by e- mail. E- mail delivery shall require a receipt response.

67. The Parties hereto agree that they will do all acts and things and execute and deliver such further and other papers and documents and pass all resolutions and enact such by-laws as may be necessary and desirable or reasonably required by a party hereto to carry out the intent and purpose of and give full effect to this Agreement and every part thereof.

68. No Assignment

This Agreement may not be assigned by any Party without the prior written consent of the other Parties, which consent may be arbitrarily withheld.

69. Compliance with Agreement and Applicable Laws

The Area Water Board and the Parties shall comply with all terms, covenants and provisions of this Agreement and, with respect to the System and the subject matter of this Agreement, shall also comply with all applicable by-laws, statutes, regulations, ordinances and all other applicable laws. The contract with the Administering Authority or Administering Municipality and the contract with any Operator shall include a provision substantially similar to this Section 67.

70. Unless otherwise agreed to in writing by the Province of Ontario, Ontario's concurrence being subject to Canada's consent, the Parties shall not sell, transfer, assign ownership of the entire System to a third party or otherwise encumber the System prior to October 31, 2020, nor shall the Parties amend or rescind this Section 68 during the same period. This Section 68 shall not prohibit a Party from leaving the System in accordance with Section 49 of this Agreement and shall not prohibit the Area Water Board from adding a new municipality to the System in accordance with this Agreement. In the event that a Party leaves the System in accordance with Section 49, the remaining Parties shall retain ownership of the System and comply with this Section 68.

71. Reporting to the Parties

The Parties acknowledge that they may be obliged to include their proportionate shares of assets and liabilities of the System in their financial statements. The Area Water Board and the Parties shall make reasonable commercial efforts to report to the Parties' Treasurers all financial information that may be required for each Party to meet their obligations to report their share of the System's assets and liabilities on their financial statements.

Reasonable commercial efforts shall be made to provide each Party's Treasurer with this information on or before March 31 each year.

IN WITNESS WHEREOF the Parties have caused this Agreement to be executed by affixing their proper seals attested by the signature of proper persons duly authorized in that behalf:

THE CORPORATION OF THE MUNICIPALITY OF WEST ELGIN

Mayor

Clerk
We have the authority to bind the Corporation

THE CORPORATION OF THE MUNICIPALITY OF SOUTHWEST
MIDDLESEX

Mayor

Clerk
We have the authority to bind the Corporation

THE CORPORATION OF THE MUNICIPALITY OF DUTTON/DUNWICH

Mayor

Clerk
We have the authority to bind the Corporation

THE CORPORATION OF THE MUNICIPALITY OF CHATHAM-KENT

Mayor

Clerk
We have the authority to bind the Corporation

THE CORPORATION OF THE VILLAGE OF NEWBURY

Reeve

Clerk
We have the authority to bind the Corporation

SCHEDULE “A”

DESCRIPTION OF THE SYSTEM

Raw water intakes
Low lift Pumping Station and Grounds
Raw water transmission line
Water Treatment Plant and Grounds
Water Mains (as outlined below):

400mm from Water Treatment Plant to Eagle Meter Pit
400mm from Water Treatment Plant to Stand Pipe in West Lorne
400mm from Stand Pipe in West Lorne to Pumping Station and Reservoir owned by Southwest Middlesex
West Lorne Stand Pipe and Grounds

Exclusions

- (a) All connections to the 400mm watermain between the Water Treatment Plant and the SWM Reservoir
- (b) All meters except those located in the Water Treatment Plant
- (c) All equipment and infrastructure that forms part of the Iona Chamber/Interconnect

NOTE: Item(s) can be added or deleted from the System through amendments to this Schedule as decided by the Area Water Board.

SCHEDULE “B”

PROPORTIONAL WATER CONSUMPTION AND REPRESENTATION ON BOARD

Party	2010 Water Consumption m ³	2011 Water Consumption m ³	2012 Water Consumption m ³	3 Year Average Water Consumption m ³
West Elgin	486,083	503,358	539,029	509,490
Southwest Middlesex	443,590	356,647	371,058	390,342
Dutton/Dunwich	439,301	433,218	427,527	433,349
Chatham-Kent	96,026	88,562	90,606	91,731
Newbury	48,399	61,141	49,094	52,878
Total	1,513,399	1,442,926	1,477,314	1,477,880

- I. The interests of the Parties in the System shall be as tenants-in-common, each as to the undivided interest according to their proportional water consumption.
2. This schedule will be updated for each Council term on the basis of the water consumption of each Party over the previous three (3) full years. For clarity, the election year shall be excluded because data will not be available for the year of the election (the election will be held prior to the completion of that year).

SCHEDULE “C”

CAPCITY IN SYSTEM AND OWNERSHIP

Party	Capacity in MJ	Percentage
West Elgin	1,715,315	43.24
Southwest Middlesex	980,390	24.72
Dutton/Dunwich	758,835	19.14
Chatham-Kent	314,995	7.95
Newbury	196,370	4.95
TOTAL PURCHASED CAPACITY	3,965,725	
Capacity in the Intake	5,365,500	
Reserve Capacity in the Intake	1,399,775	
Capacity in the Plant	4,416,500	
Reserve Capacity in the Plant	450,775	

SCHEDULE "D"

MINIMUM PURCHASE VOLUME CALCULATIONS

	2011	2012	2013	Total	Average	75% of Average (to be include in Section 33)
<u>Section 33 (a) – Chatham-Kent</u>						
Water Consumption:	88,561	90,606	86,072	265,242	88,414	66,311 m ³
<u>Section 33 (b) – Dutton Dunwich</u>						
Water Consumption:						
- Iona Connection	138,462	146,916	147,160	432,538	144,179	
Tri-County						
- Eagle	200,450	208,477	188,070	596,997	198,999	
- Marsh	94,034	106,158	37,779	237,971	79,324	
- Marsh Adjust 11 & 12	-	36,306	-	36,306		
- Pioneer	-	2,285	8,739	11,024	3,675	
- From West Elgin Plant	294,484	280,614	234,588	809,686	269,895	202,422 m ³
<u>Section 33 (c) – Southwest Middlesex</u>						
Water Consumption:						
- Total Billed to Southwest	518,983	510,758	512,417	1,542,158	514,053	
- Adjust for Newbury	61,137	49,094	42,147	152,378	50,793	
- Adjust for Chatham-Kent	88,561	90,606	86,075	265,242	88,414	
Amount for Section 33	369,285	371,058	384,195	1,124,538	374,846	281,135 m ³
<u>Section 33 (d) – Newbury</u>						
Water Consumption:						
- Billed to Newbury	61,137	49,094	42,147	152,378	50,793	
- Adjustment Griffore Farms	14,529	1,590				
Amount for Section 33	46,608	47,504	42,147	136,259	45,420	34,065 m ³
<u>Section 33 (e) - West Elgin</u>						
Water Consumption:						
- Water Billed	483,088	511,460	445,599	1,440,147	480,049	
- Water Losses WL	20,270	27,569	26,899	74,738	24,913	
Amount for Section 33	503,358	539,029	472,498	1,514,885	504,962	378,721 m ³