



## **JOINT BOARD OF MANAGEMENT**

Wednesday, December 18, 2019

**9:00 AM**

Unico Community Centre  
37 Beech Street,  
Kingsville

## **AGENDA**

**A. Call to Order:**

**B. Disclosures of Pecuniary Interest:**

**C. Approval of Minutes:**

Minutes of the meeting of the Union Water Supply System Joint Board of Management Meeting held Wednesday, November 20, 2019  
Pages 3 - 7

**D. Business Arising Out of the Minutes**

**E. Items for Consideration:**

1. UW/33/19 dated December 13, 2019 re: Status Update of UWSS Operations & Maintenance Activities and Capital Works to December 13, 2019  
Pages 8 - 9
2. UW/34/19 dated December 12, 2019 re: UWSS Secondary Disinfection Review Report  
Pages 10 - 13
3. UW/35/19 dated December 13, 2019 re: 2020 Union Water Supply System Budget and Six Year Capital Plan  
Pages - 14 - 23 - Report  
Pages - 24 - 29 - 2020 UWSS Operations and Capital Budget Tables and Details  
Pages - 30 - 33 - UWSS 6 Year Capital Plan Tables and Details
4. Dates for Union Water Supply System Joint Board of Management for 2020  
Page 34
5. UW/36/19 dated December 13, 2019 re: Payments from November 1<sup>st</sup> to December 13<sup>th</sup> 2019  
Pages 35 - 43

December 18, 2019

Union Water Supply System Joint Board of Management Agenda

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F. **New Business:**

G. **Adjournment:**

H. **Date of Next Meeting:** January 15, 2020, 9:00 am, Ruthven Water Treatment Plant, 1615 Union Avenue, Ruthven

/kmj



## JOINT BOARD OF MANAGEMENT

Wednesday, November 20, 2019

9:00 AM

Unico Community Room,  
37 Beech Street  
Kingsville

### MINUTES

**Members Present:** Mayor MacDonald (Chair); Deputy Mayor Verbeke, Councillors Dunn, Hammond, Jacobs, Wilkinson - Leamington  
Mayor Nelson Santos (Vice-Chair); Deputy Mayor Queen,  
Councillors DeYong, Gaffan (alternate), Patterson - Kingsville  
Councillor VanderDoelen - Essex  
Councillor Walstedt - Lakeshore

**Members Absent:** Councillor Neufeld - Kingsville

**Staff Present:** Andy Graf - Essex  
Kevin Girard - Lakeshore  
Shannon Belleau - Leamington

**OCWA Staff Present:** Susan Budden, Dave Jubenville  
Dale Dillen, Ken Penney

**Call to Order:** 9:03 am

**Disclosures of Pecuniary Interest:** none

**Adoption of Board Minutes:**

**No. UW-50-19**

**Moved by:** Councillor Walstedt

**Seconded by:** Councillor Dunn

That Minutes of the UWSS Joint Board of Management meeting of October 16, 2019 be received.

Carried

**Business Arising Out of the Minutes:**

There was none.

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**Report UW/31/19 dated, 2019 re: Status Update of the UWSS Operations & Maintenance Activities and Capital Works to November 15, 2019**

The Manager reviews his report with board members. The Manager explains that there is a lot of construction activity at the Ruthven WTP at the moment and this the reason behind the change of location for the November meeting. He further explains that regular maintenance is always ongoing with the OCWA staff.

The Low Lift has been isolated, drained, cleaned and inspected and no issues were observed. The Cottam Booster Station (CBS) was inspected by Watech Services on November 13<sup>th</sup> and 14<sup>th</sup>. This was a live wet dive and based on their inspection all appeared to be in order. No cracks were observed and the Manager is just awaiting a final report. Also in regard to the CBS the site inspection took place with the engineer and the contractor. A few bare spots of grass cover was observed, however, those will be re-seeded in the Spring. The Manager reminds members of the board of the two (2) year warranty on this project.

During regular inspection a waste water pump was identified as being very corroded. OCWA staff proceeded to scrape and remove the corrosion, then Denso wrap the piping which should keep the piping in its existing condition.

Clarifier #3 mixer motor variable frequency drive repairs were completed during the past month and this clarifier is now back in service. Filters #2 and #4 gate valves have been received, however, OCWA staff will install in coordination with the CO2 system.

The Manager reminds members of the ongoing SCADA project. He confirms that another Factory Accepted Test (FAT) will take place later in the week at the engineer's office in Etobicoke. This FAT will look at aspects of the LL and part of the WTP. He indicates that the project is moving slightly slower than anticipated, but the team is identifying a lot of things that has not been known about the system. He does expect the new system to be installed by February.

The Manager provides an update on the CO2 pH Adjustment Project. He notes there has been a slight delay with some of the installation due to the weather, but notes things are still moving well. He states that the scrubber and the tonners have been installed, however they are waiting on new racks, which should arrive soon. He feels that this system will be commissioned sometime in December.

The Manager explains to Board members of the secondary disinfection review being conducted by Associated Engineering (AE). He explains that a workshop had taken place and since that time the Manager has received the final report. This report has been delivered to municipal colleagues and he expects to have a meeting with this working group sometime during the week of December 5<sup>th</sup>. This meeting will discuss and identify the method to move ahead for permanent secondary disinfection. That Board asked why AE was chosen for this project and whether they had experience in this area of consideration. The Manager explains that AE is very familiar with UWSS and have done a number of studies for larger cities.

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The Manager confirms that flows are still up quite a bit over last year and the four year average and doesn't expect that trend to change. He will monitor closely.

**No. UW-51-19**

Moved by: Deputy Mayor Verbeke

Seconded by: Councillor Jacobs

That report UW/31/19 dated November 15, 2019 re: Status Update of the UWSS Operations & Maintenance Activities and Capital Works to November 15, 2019 is received.

Carried (UW/31/19)

**Verbal presentation of the preliminary 2020 Union Water Supply System Joint Board of Management Budget and Six Year Capital Plan**

The Manager explains to members of the Board that the presentation today is for information purposes, allows time for review and allows member to ask questions prior to his seeking approval of the 2020 Budget at the December meeting. He provides members with a Memo Package for review.

He also explains that all his figures will be migrating over to the use of metric, rather than imperial. The new SCADA system will be in metric as well and this will make things easier, however, imperial will be in brackets for the time being.

The Manager uses a 1% increase in flows, which is the first time, in perhaps eight (8) or nine (9) years that an increase has been used. The projected revenues are expected to be approximately \$11 million. He reminds members that the new Operations and Maintenance contract with OCWA took place on July 1<sup>st</sup> of this year, this includes new staffing and an agreement with Air Liquide, so OCWA budget increased slightly for the second half of 2019.

He explains that the debt service loan to Sun Life Financial will be completed in 2026, which will free up monies. He anticipates approximately \$3.1 million surplus being transferred to reserves and a budget of \$5 million taken from reserves, with a net deficit from the reserves of \$1.9 million.

The Manager is proposing a rate increase of 4%, which is keeping in line with the Financial Plan from Watson & Associates. The Financial Plan was presented to the Board and approved earlier this year and the increase will allow for the comprehensive budget to continue to move forward. He reminds members of the Board that this increase is scheduled to take place over the next several years, to help cover the projects coming up in the six (6) year plan.

Municipal Staff member, present in the audience, asks if the restructuring takes place, will this potentially change the rates. The Manager indicates that for the coming year it will not change the 4% rate increase, but beyond that restructuring could potentially mean a lower rate, as the UWSS would have the ability to take on debt/grants.

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The Manager moves on to the Capital Program explaining that a lot of the invoices for the bigger projects for 2019 have not yet been received, but should be by the on the year. He explains that some projects have been moved over to the 2020 year. He explains all of the “Studies/Programs” that will be happening in the next year, such as water modeling, Lake Erie HAB program, study regarding potential Reservoir #3, and study regarding back up power generation.

The Manager then reviews the bigger capital items that will be required in 2020 such as: Filters #2 and #4 are leaking, HL pump #7, SCADA (finish up project), new security system, Dissolved Air Filtration (DAF) and the Kingsville Water Tower rehabilitation. The Manager briefly explains each item, while members of the Board ask questions of each potential project.

The Manager then reviews the Budget Summary which includes, debts, revenues and expenditures. He notes that the UWSS is in good shape with monies in the bank earning revenue.

The Board asks if perhaps the capital program is a bit aggressive and wonders if staff can keep up with the workload. The Manager explains that some of the projects have taken a little longer than expected, and he intends to spread some projects over two (2) years.

The Manager asks the members of the Board to review the memo provided and email him any questions they may have. He will then be seeking approval of the 2020 Budget at the December Board meeting.

**No. UW-52-19**

Moved by: Councillor Dunn

Seconded by: Councillor DeYong

That the verbal presentation and memo is received for information.

Carried

**Report UW/32/19 dated November 15, 2019 re: Payments from October 11<sup>th</sup> to November 1<sup>st</sup>, 2019****No. UW-53-19**

Moved by: Councillor Patterson

Seconded by: Deputy Mayor Queen

That report UW/32/19 dated November 15, 2019 re: Payments from October 11<sup>th</sup> to November 1<sup>st</sup>, 2019 is received.

Carried (UW/32/19)

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**New Business**

The Manager shows the members of the Board the drawing for the potential Administration Area expansion predesign, which is included in the Six (6) Year Capital Plan. He explains the need for an elevator at the facility to meet accessibility requirements, and the potential to use this opportunity to create more space for administration as well. The plans include a new board room, office space and improved parking as well.

Adjournment:

**No. UW-54-19**

Moved by: Councillor Patterson

Seconded by: Councillor Dunn

That the meeting adjourn at 10:15

Carried

**Date of Next Meeting:** Wednesday, December 18, 2019, at the Unico Community Centre, 37 Beech Street, Kingsville.

/kmj

UW/33/19

**To:** Chair and Members of the Union Water Supply  
System Joint Board of Management

**From:** Rodney Bouchard, UWSS General Manager

**Date:** December 13, 2019

**Re:** Status Update of UWSS Operations & Maintenance Activities and Capital  
Works to December 13, 2019



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**Aim:**

To inform the UWSS Board about operational and maintenance activities and capital works projects for the Union Water Supply System since the last Board meeting on.

**Discussion:**

The UWSS Manager conducts regular meeting with OCWA Operations staff in regards to on-going operations and maintenance programs for the UWSS facilities. The following provides an update on UWSS operations, regular maintenance and major maintenance and Capital Works at UWSS facilities:

1. Regular Maintenance on all process equipment and analyzers continue to be completed through OCWA's Workplace Maintenance Management System.
2. Clarifier #2 was taken out of service and the gear box was removed due to an oil leak and it has been rebuilt with new gaskets and seals. The clarifier was also washed out and inspected.
3. Clarifier #3 has been taken out of service due to low flows; it has been washed out and inspected.
4. SCADA Upgrade Project Update: SCADA System software Factory Acceptance Testing (FAT) parts of the Treatment Plant was completed on November 21-22, 2019 at Summa Offices in Etobicoke, ON. The final FAT for all remaining components of the Treatment Plant is scheduled for January 7-8, 2020.

On-site construction activities relating to the new SCADA system are almost complete. Deployment of the SCADA software was initiated on December 2<sup>nd</sup>. To date, the new SCADA system is live for the Kingsville Water Tower, control valve VC-16 that feeds the Kingsville tower, and Leamington tower. All on-site work in regards to the new SCADA system are on-hold for the holiday season and will resume the on the week of January 13, 2020. Project completion date is scheduled for end of beginning of March 2020.



Re: UW/33/19 - Status Update of UWSS Operations & Maintenance Activities and Capital Works to December 13, 2019

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5. CO2 pH Adjustment/ Chlorine System Improvements Project Update - The CO2 feed piping from the CO2 tank to the plant and CO2 injection piping from the plant to the injection chambers has been installed and backfilled.

In-plant CO2 piping for CO2 dissolution and control skids is complete. The Motor Control Center (MCC)/ electrical panel for the CO2 injection system and wiring for the control skids, dissolution skids, etc. is complete. The dry chlorine scrubber tank and piping installation has been completed. The scrubber system media has been installed. The new chlorine tonner scales and racks have been installed.

Commissioning of the CO2 and chlorine systems has been delayed until the week of January 13, 2020 due to delays with equipment delivery and the approaching holidays.

6. UWSS retained Associated Engineering (AE) to complete a review of Historical Secondary Disinfection Practices and Performance for the Union Water Supply System. The purpose of the review is to evaluate and provide recommendation on the secondary disinfection practice that is best suited for UWSS. This evaluation has been completed and the associated report and recommendations are presented in report UW34-19 (under separate cover).

Comparative Flows for 2015 through 2019 in Millions of Imperial Gallons (for the period January 1<sup>st</sup> to December 12<sup>th</sup>, 2019)

	2015	2016	2017	2018	2019
Flow to Date (MG)	3,067.10	3,272.13	3,244.17	3,450.75	3,587.53
Max Day (MGD)	15.36	16.75	16.62	18.14	18.79
Min Day (MGD)	3.79	4.29	4.56	5.18	4.43
Average Day (MGD)	8.86	9.43	9.38	9.97	10.37
No of Days	346	347	346	346	346

Flows to date are up 136.78 MIG or 3.96% from last year. The 2019 flows to date are up 10.1% over the previous 4 year average.

**Recommendation:**

That this report be received by the UWSS Board for information purposes.

Respectfully submitted,



Rodney Bouchard, Manager  
Union Water Supply System Joint Board of Management

/kmj

UW/34/19

## Report

To: Chair and Members of the Union Water  
Supply System Joint Board of Management

From: Rodney Bouchard, Union Water Manager

Date: December 12, 2019

Re: UWSS Secondary Disinfection Review Report

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### Recommendation:

That the Union Water Supply Joint Board of Management (UWSS Board) receives this report for information;

And further, that the UWSS Board endorses the recommendations of the Technical Memorandum prepared by Associated Engineering on *“Union Water Supply System Review of Historical Secondary Disinfection Practices”* dated November 2019 Report to implement chlorine secondary disinfection on a permanent basis for the entire UWSS supplied distribution system.

### Background:

On June 4, 2018, the UWSS implemented a temporary switch of secondary disinfection from chloramination to free chlorine. This was done as part of our maintenance program to prevent any nitrification related water quality issues in the larger UWSS area distribution system. The UWSS Municipal Drinking Water License (MDWL) allows the UWSS to conduct these temporary switches in secondary disinfection on an annual basis for periods of up to 8 weeks.

The UWSS Board was previously informed of this initiative at the May 2018 UWSS Board meeting. The four municipalities of Essex, Kingsville, Lakeshore and Leamington that receive UWSS drinking water were also informed of this temporary switch in secondary disinfection via letter correspondence dated May 28, 2018 sent to the CAOs of each municipality.

At the July 2018 UWSS Board meeting, the UWSS Board was informed that the UWSS would be extending the use of free chlorine secondary disinfection to June 4, 2019 and that the UWSS had received permission for this extension from the Ontario Ministry of Environment, Parks and Conservation (MECP). The purpose of the extension was to allow for UWSS and OCWA to evaluate free chlorine secondary disinfection in the larger UWSS distribution system over a full year. Letter correspondence dated July 20, 2019

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Re: UWSS Secondary Disinfection Review Report

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was sent to the CAOs of the four municipalities of Essex, Kingsville, Lakeshore and Leamington to inform them of this extension in free chlorine secondary disinfection and to solicit any comments from the municipalities regarding this initiative.

On April 9<sup>th</sup>, 2019, the UWSS General Manager convened a meeting with water department staff from the municipalities of Essex, Kingsville, Lakeshore and Leamington and OCWA Operations staff to discuss the results of the data collected during the June 4, 2018 to April 1, 2019 free chlorine secondary disinfection monitoring period. The monitoring results indicated that no water quality issues of note were noted in regards to the use of free chlorine secondary disinfection during that 10 month period. It was noted that a few complaints were received from the public in regards to “chlorine taste and odour” in the water, which is not unusual when using free chlorine secondary disinfection. At that meeting, there was basic consensus from attendees that free chlorine secondary disinfection would work well for the larger UWSS system and there was general support for the UWSS General Manager’s proposal to look at permanent use of free chlorine for secondary disinfection instead of chloramination. Further, at the conclusion of the April 9<sup>th</sup>, 2019 meeting, it was agreed by UWSS and municipal staff in attendance that it would be beneficial to conduct a third party consultant review of the 2018-2019 free chlorine secondary disinfection monitoring data and a review of historical secondary disinfection processes for UWSS.

At the April 2019 UWSS Board meeting, the UWSS General Manager informed the UWSS Board of the approval by MECP to extend the use of free chlorine secondary disinfection until December 4, 2019 to allow for additional evaluation during the summer period and to allow for review of the collected data by a third party consultant. The Board was also informed that the UWSS had notified and received approval from the MECP for this extension. A further extension until January 4, 2020 was requested and granted by the MECP to allow UWSS additional time for consultation with stakeholder municipalities

## **Discussion:**

UWSS retained Associated Engineers (AE) to complete a review of historical secondary disinfection practices and performance at UWSS and undertake an evaluation of secondary disinfection strategy alternatives. AE was selected for this work based on their familiarity with the UWSS treatment process and concerns and also because of the expertise AE possesses in regards to water treatment and water quality.

The evaluation consisted of a review the water quality data collected from June 2018 to November 2019 and comparison to similar historical data collected while the plant was practicing chloramination. Water quality data and information reviewed included:

- Ruthven WTP finished water and distribution system water quality data including free and combined chlorine residuals, DBPs (i.e., THMs and HAAs), pH, alkalinity and CSMR;
- Logged taste and odour, colour and/or fixture staining complaints;
- UWSS recorded nitrification events and associated details;

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Re: UWSS Secondary Disinfection Review Report

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- Chlorine and ammonia dosing rates;
- Chemical and O&M costs; and,
- InfoWater model data.

To understand the implications for Operations and Maintenance staff associated with chlorine and chloramine secondary disinfection practices, AE conducted interviews with Ruthven Treatment plant operations staff and municipal drinking water operations on July 9, 2019 and reviewed available historical reports.

Upon completion of the review of historical information and review of water quality data, AE identified two alternative secondary practices for the UWSS supplied distribution system. These were as follows:

- Free chlorine secondary disinfection with chlorine boosting at the Cottam Booster station;
- Chloramination without boosting.

The two alternative secondary disinfection practices were evaluated based on weighted evaluation criteria following a Triple Bottom Line (TBL) + risk framework which incorporates financial, social, environmental and risk considerations. The TBL+risk structured-decision making framework is a well-established method for decision making that provides a structured approach that focuses the needs and priorities of the project.

A workshop was held on October 8<sup>th</sup>, 2019 at the UWSS Ruthven Water Treatment Plant with AE, UWSS and OCWA operations staff to identify the evaluation criteria categories and scoring framework.

The results of the TBL + risk framework evaluation indicated that Free Chlorine secondary disinfection with chlorine boosting at Cottam Booster was the secondary disinfection practice best suited for the UWSS supplied transmission/distribution network. This preferred alternative was identified in the Recommendations section in AE's November 2019 Technical Memorandum.

On November 15, 2019 the UWSS General Manager distributed AE's report to water department staff at the municipalities of Lakeshore, Essex, Kingsville and Leamington for their review and comment.

The UWSS held a meeting on December 12, 2019 with representatives of the municipalities of Lakeshore, Essex, Kingsville and Leamington to allow AE to present the results of the evaluation and to obtain feedback from municipal staff on the recommended free chlorine secondary disinfection practice.

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Re: UWSS Secondary Disinfection Review Report

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### Closing Comments:

AE's November 2019 Technical Memorandum includes a thorough evaluation of historical secondary disinfection practices for the UWSS supplied transmission/ distribution network. The UWSS General Manager recommends that the UWSS Board endorses the recommendations of AE's report and that UWSS implements the use of free chlorine secondary disinfection practice on a permanent basis.

Respectfully submitted,



Rodney Bouchard, General Manager  
Union Water Supply System Joint Board of Management  
rb/kmj

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**TO:** Chair and Members of the Union Water Supply System  
Joint Board of Management

**FROM:** Rodney Bouchard, Union Water Manager

**DATE:** December 13, 2019

**RE:** 2020 UWSS Operations and Capital Budget Report



### **RECOMMENDATION**

That the Union Water Supply System Joint Board of Management (UWSS Board) adopts the Draft 2020 Operational and Capital Budget for the Union Water Supply System;

And further, that the UWSS Board adopts an increase of \$0.0248 per cubic metre for the UWSS Wholesale Rate. The new proposed UWSS Wholesale Rate for 2020 would be \$0.6458 per cubic meter.

And further, that the UWSS General Manager be provided the delegated authority to implement the 2020 UWSS Operations & Maintenance Budget and 2020 Capital Program.

### **REPORT HIGHLIGHTS**

- Potable water demand from UWSS is anticipated to be approximately 16,795,000 m<sup>3</sup> (3,694,900,000 imperial gallons) for 2020. This represents a 1% increase in flow over the predicted total demand for 2019.
- An increase of \$0.0248 per cubic meter is proposed for the UWSS Wholesale Rate. The new proposed Rate 1 wholesale rate for 2020 would be \$0.6458 per cubic meter.
- UWSS Revenue for 2020 is estimated at \$11,426,730 of which \$10,946,310 is from wholesale of water to municipalities, \$459,000 from investment revenue and \$21,420 from Sundry Revenue.
- Operational and Debt Service Expenditures for 2020 are estimated at \$8,281,694. This includes \$3,330,300 for OCWA Operations and Maintenance services and \$2,351,279 for the Sunlife Loan (former MFD Debt).
- 2020 Revenue versus Operational and Debt Service Expenditures are anticipate to result in a surplus of approximately \$3,145,036 for 2020 Fiscal Year;
- A budget of \$285,000 has been established for proposed 2020 Operational Studies and Programs.
- A Capital Program of \$5,050,000 is proposed for 2020; A draw of \$1,905,000 from the UWSS Reserves would be needed to fund the 2020 Capital Program.

**BACKGROUND:**

Since the Transfer Order of January 2001, the Board is responsible for considering and approving an annual budget for the Union Water Supply System. The format of the budget is generally the same as that previously prepared for 2019.

This draft budget is being presented to the UWSS board for consideration. The draft 2020 budget is outlined to provide details in regards to the following:

- Anticipated revenue for 2020 from wholesale of water to the partner municipalities;
- Anticipated operating expenditures for 2020 including estimated costs for operation of the system by the Ontario Clean Water Agency (OCWA), under its contract with UWSS;
- Proposed Capital Works program for 2020 for UWSS;
- Forecasted Operational Expenditures and Capital Works program for 2021-2025.

**DISCUSSION:**

The draft 2020 Budget documents have been prepared based on the discussions with the contracted operator, OCWA, in regards to operational budget, major maintenance needs, and existing operational issues that would require implementation of capital works to resolve. The Budget documents reflect the following:

- The operations and maintenance costs associated with the 5-Year (with option to renew for an additional 5 years) Cost Plus Operations and Maintenance Agreement between UWSS and OCWA that came into effect on July 1, 2019;
- Capital Projects that were approved and initiated in previous years that are on-going into 2020.

Details regarding the budget components are discussed below.

**OPERATING EXPENDITURES**

Expenditures for the Union Water Supply System (UWSS) include *Fixed Expenditures* such as the OCWA operations contract, administration, and debt service and *Programs and Studies* that are proposed for 2020 to identify cost effective improvements for the operation of the UWSS. The total projected expenditures for 2020 is budgeted at approximately at \$8,281,694.

**Fixed Expenditures**

Fixed expenditures for the budget process include the OCWA Operations Budget, UWSS Administrative Budget, and Debt Service. The total fixed expenditures for 2020 is budgeted at \$7,996,694. The fixed expenditures consist of the following components:

OCWA Operations Budget:	\$3,330,300
UWSS Administrative Budget:	\$ 611,615
Residuals Ponds Maintenance:	\$ 150,000
CO2 Gas Bulk Purchase Contract:	\$ 178,500
Watermain Repairs:	\$ 100,000
Electricity and Natural Gas:	<u>\$ 1,275,000</u>
<i>Total Operations, Administrative, Energy:</i>	<i>\$5,645,415</i>
Debt Service:	
Sunlife Debt (MFP Debt):	<u>\$2,351,279</u>
<i>Total Debt Service:</i>	<i>\$2,351,279</i>
<b>Total Fixed Costs:</b>	<b>\$7,996,694</b>

**Programs and Studies**

A number of Programs and Studies are included in the 2020 Budget. These studies are designed to achieve one of the following goals:

- Assess and improve operational processes to improve cost efficiencies potentially resulting in decrease of fixed operations costs such as electricity costs and chemical costs;
- Evaluate water demand and water usage by various sectors including residential, commercial, industrial, and food processing/greenhouse industry;
- Evaluate water quality to for potential issues such as toxic algae in raw water, nitrification issues in larger distribution systems, etc.



For the 2020 budget year, \$260,000 has been allocated to Programs and Studies. The following studies are proposed or currently in place.

Water Demand/Water Loss/ Water Quality Initiatives:	\$ 75,000
Lake Erie HAB Monitoring Project:	\$100,000
Emergency Water Servicing Study:	\$ 30,000
New WTP Reservoir #3 Study:	\$ 40,000
Backup Power Generation/Energy Study:	<u>\$ 40,000</u>
Total:	\$285,000

### **Operating Expenditure Summary**

Fixed Expenditures:	\$7,996,694
Programs and Studies:	<u>\$ 285,000</u>
<b>Total Operating Expenditures for 2020:</b>	<b>\$8,281,694</b>

### **REVENUE**

Revenue for the budget process is mainly based on wholesale billings from the sale of potable water to the 4 municipal owners. A much smaller component of revenue is based on miscellaneous revenue such as investment income and sundry income. The total estimated revenue for 2020 is \$11,426,730

### **Wholesale Water Revenue Summary**

Wholesale water revenue is based on annual water usage by the 4 owner municipalities and the wholesale water rates.

#### **Water Usage**

The projected water “usage” by municipal owners for 2020 is 16,950,000 m<sup>3</sup> (3,729,000,000 imperial gallons) for 2020. This represents a 1% increase in flow over the predicted total demand for 2019.

Figure 1 depicts the total UWSS water usage trend from 1998-2019.

**Figure 1**

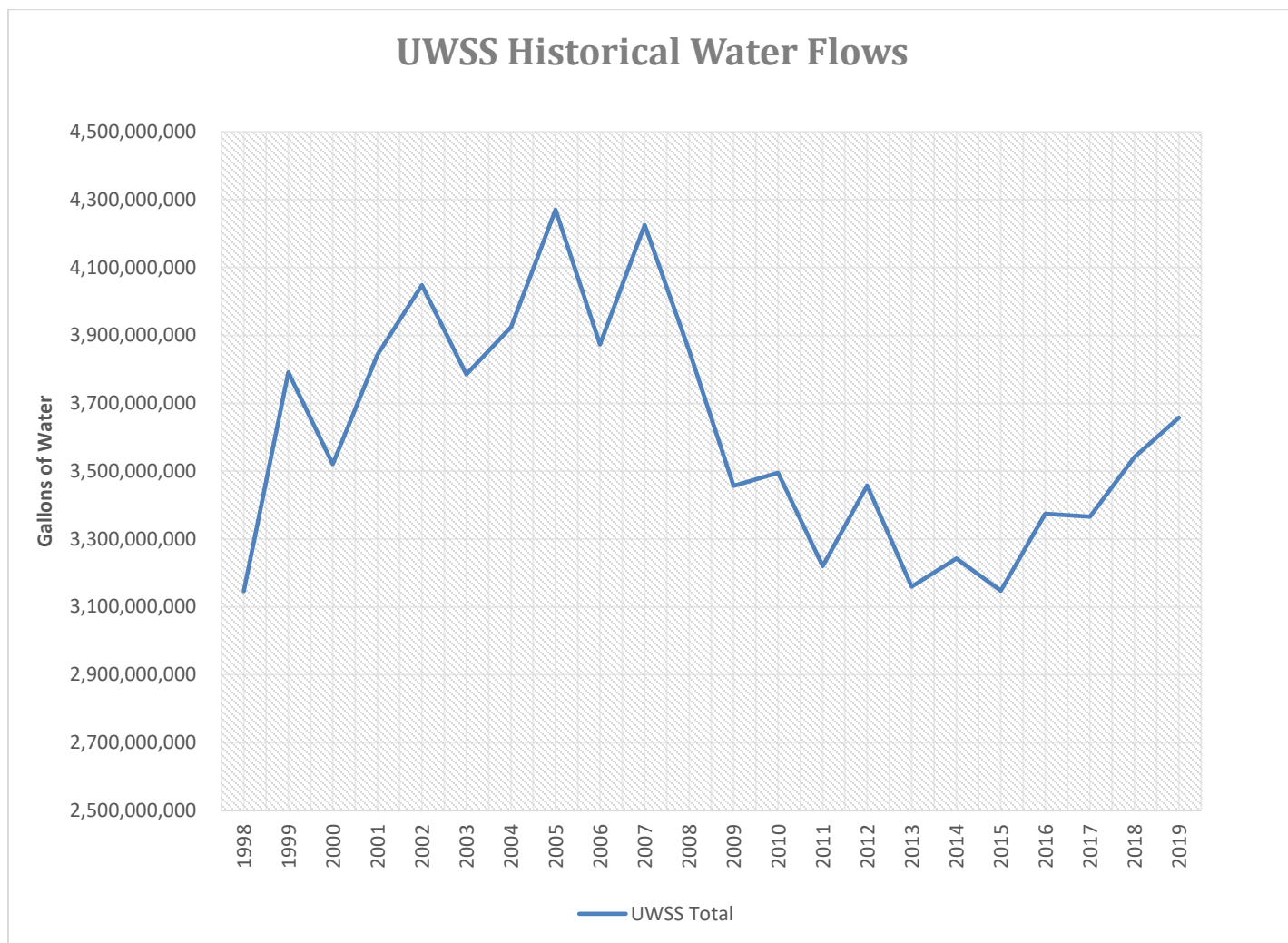
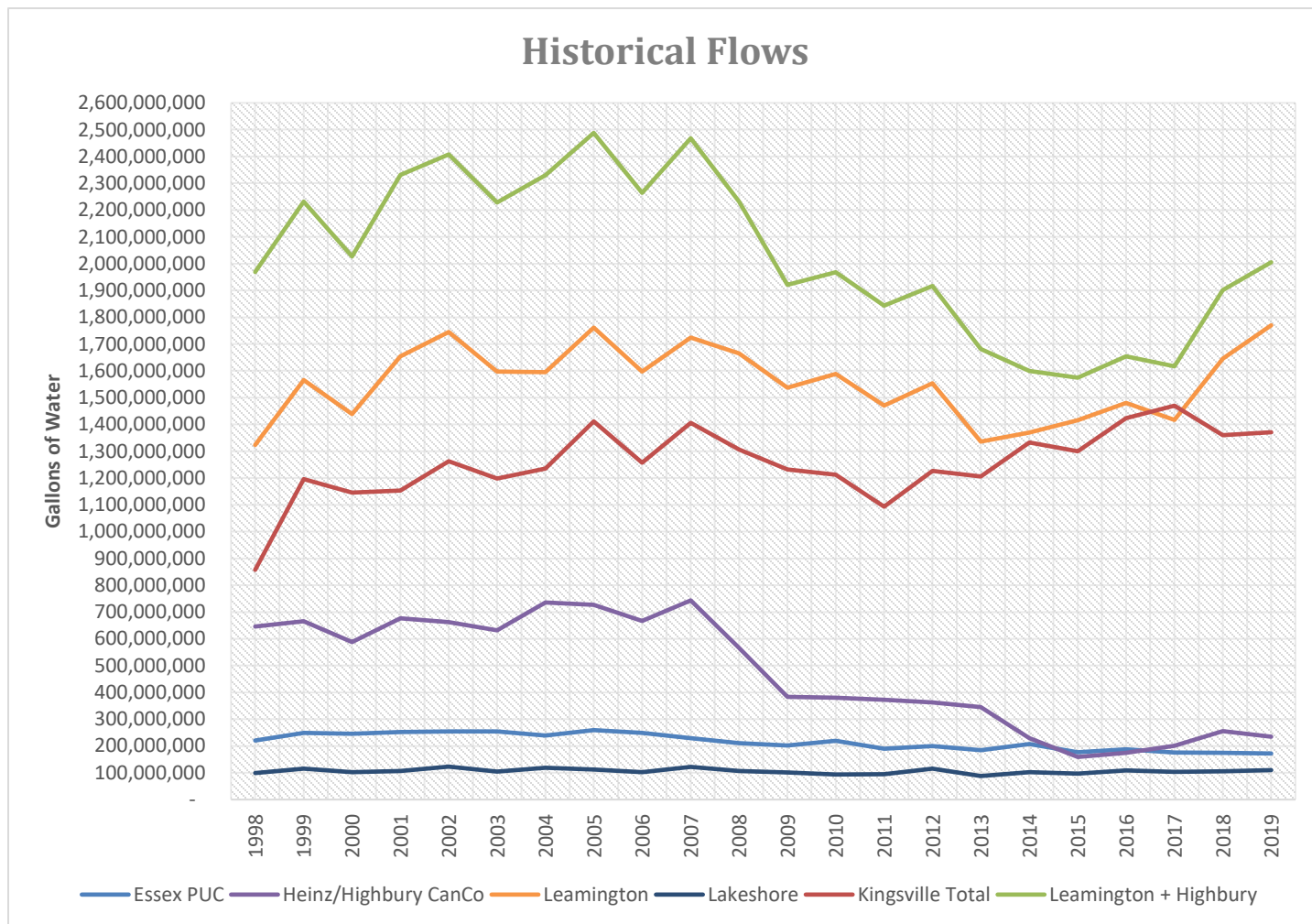


Figure 2 depicts the water usage trend by each municipal partner from 1998-2015.

**Figure 2**



### Wholesale Water Rates

For the 2020 budgeting process, it is proposed that an increase of \$0.0248 per cubic meter be applied to the UWSS wholesale rate. This would result in a 2020 UWSS wholesale rate of \$0.6458 per cubic meter to be applied as of January 1, 2020.

Based on the anticipated water usage rates for 2020 of 16,950,000 m<sup>3</sup> of potable water the wholesale rate water revenue is estimated at:

**Wholesale Rate Revenue Total: \$10,946,310**

**Miscellaneous Revenue**

Miscellaneous revenue includes income from investments and sundry income.

Investment (interest) income:	\$ 459,000
Sundry revenue:	<u>\$ 21,420</u>
<b>Total Misc. Revenue:</b>	<b>\$ 480,420</b>

Sundry revenue is revenue received from various sources such as lease of space on water towers for telecommunications equipment. The estimated sundry revenue for 2020 is \$21,420 and is roughly based on 2019 revenue.

**Revenue Summary**

Wholesale Rate Revenue:	\$10,946,310
Miscellaneous Revenue:	<u>\$ 480,420</u>
<b>Total Estimated Revenue for 2020:</b>	<b>\$11,426,730</b>

**REVENUE VERSUS OPERATING EXPENDITURES**

A comparison of Revenue versus Expenditures for 2020 budget is as follows. It should be noted that the total estimated expenditures also include the proposed budget for operational Programs and Studies of \$260,000.

Total Estimated Revenue:	\$11,426,730
Total Estimated Expenditures:	<u>\$ 8,281,694</u>
<b>Surplus/(Deficit):</b>	<b>\$ 3,145,036</b>

**CAPITAL PROGRAM**

The proposed Capital Program for 2020 is budgeted at \$4,990,000. This includes any major Capital Equipment Purchases (e.g. vehicles, heavy equipment) and major Capital Works.

Capital Works:

The following major capital works projects are proposed for 2020:

Low Lift Pump #5 Major Maintenance:	\$ 35,000
Low Lift Roof Replacement:	\$ 90,000
Blue Green Algae Probes (2):	\$ 30,000
Low Lift Main Electrical/Transformer Upgrades:	\$ 250,000
New Carbon Recirculation Pump:	\$ 10,000
Filter #4 Rehab:	\$ 400,000
New Highlift #7 Pump:	\$ 250,000
New Panel/Quick Connect for Portable Generator:	\$ 60,000
SCADA System Upgrades (cont'd from 2019):	\$ 250,000
Security System Install:	\$ 85,000
UWSS Wide Communication System Upgrades:	\$ 20,000
Cottam Booster Reservoir Baffling Assessment:	\$ 30,000
Kingsville Water Tower Rehabilitation:	\$1,300,000
Distribution System Components:	\$ 200,000
Master Water Meter Upgrades:	\$ 50,000
Laboratory Upgrades:	\$ 100,000
Treatment Plant Admin Area Improvements:	\$ 45,000
Grounds Improvements:	\$ 100,000
Fencing - Water Treatment Plant and Leamington Tower:	\$ 45,000
DAF System Design/Construction:	\$1,400,000
Chlorine Gas System Project (cont'd from 2019):	\$ 150,000
CO2 pH System Project (cont'd from 2019):	<u>\$ 150,000</u>
<b>Total Capital Works for 2020:</b>	<b>\$5,050,000</b>

**BUDGET SUMMARY**

The proposed 2020 budget is summarized as follows:

<b>Total Estimated Revenue:</b> (includes wholesale rate revenue and miscellaneous revenue)	<b>\$11,426,730</b>
<b>Total Estimated Operating Expenditures:</b> (includes Operations Contract, UWSS Admin, Programs & Studies)	<b><u>(\$8,281,694)</u></b>
<b>Revenue versus Operating Expenditures:</b> Surplus/ (Deficit)	<b>\$3,145,036</b>
<b>Capital Program:</b> (includes Capital Purchases and Capital Works)	<b><u>(\$5,050,000)</u></b>
<b>NET SURPLUS/ (DEFICIT) :</b> (Operating surplus/deficit less Capital Program)	<b><u>(\$1,904,964)</u></b>

The capital program for 2020 will be funded through the UWSS Reserves.

**CASH /RESERVES VERSUS DEBT**

Cash and Reserves for UWSS as of January 1, 2020 are forecasted to be approximately \$18,048,333 million dollars. It should be noted that of the estimated \$18,048,333 in available cash and reserves for 2020, approximately \$10,516,503 are dedicated to UWSS Settlement Reserve, which is associated with the 2006 settlement that was reached regarding the MFP debt. Although the UWSS Board has authority to use these funds as it sees fit, the intent is to keep these funds in an interest bearing investment funds to offset the annual MFP Debt obligation and to function as a rate stabilizing Reserve Fund. These funds are currently invested in a GIC that will come to term in 2022 but are fully liquid and accessible if needed.

The 2020 Operating and Capital Budget projects a Net Deficit of \$1,904,964 for 2020 year end. Thus, it is anticipated that UWSS reserves at the end of 2020 will decrease to approximately \$16,143,369

Based on debt repayment schedules, the total UWSS long term debt balance for as of January 2020 is \$11,832,897 and consists solely of the Sunlife Loan (aka former MFP Debt) that has a term date of 2026. At the end of 2020, this debt will decrease to \$10,678,259.

### **PROPOSED 6-YEAR CAPITAL WORKS PLAN**

The UWSS General Manager, with assistance and input from OCWA Operations Staff has developed a proposed 6-year Capital Works Plan (2020-2025) for the UWSS. This Plan reflects the UWSS Manager's intention to undertake upgrades and improvements to the UWSS to address lifecycle replacement/upgrade issues and to improve water treatment, storage and transmission efficiencies.

The Proposed 6-Year Capital Plan is included as Appendix B to this Report. The Plan identifies the proposed works for each year and the anticipated value of the works. The total proposed capital works expenditures for 2020-2025 are projected at \$31,500,000.

### **CONCLUSIONS:**

It is the UWSS General Manager's opinion that the Budget presented in this report provides a Budget for UWSS that is fiscally prudent while also providing for the major maintenance and lifecycle replacements needed to ensure that UWSS facilities and operations are effective and sustainable for the future.

Respectfully submitted,



Rodney Bouchard, General Manager  
Union Water Supply System Joint Board of Management

rb/kmj

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**2020 UWSS OPERATIONS AND CAPITAL BUDGET  
TABLES AND DETAILS**



UNION WATER SUPPLY SYSTEM JOINT BOARD OF MANAGEMENT  
2020 Draft Budget  
Flows and Revenue

Flow Metering Location	2019 Approved 2019 Budget	2019 As of Oct. 30th	2019 Forecasted to Dec 31st	2019 Forecasted % of Budget at Dec. 31st	2020 Rate Increase of \$0.0248 per m3 (4%)	2021 Rate Increase of \$0.0258 per m3 (4%)	2022 Rate Increase of \$0.0269 per m3 (4%)	2023 Rate Increase of \$0.0279 per m3 (4%)	2024 Rate Increase of \$0.0291 per m3 (4%)	2025 Rate Increase of \$0.0302 per m3 (4%)
Essex PUC	795,455	749,196	792,000	100%	795,000	802,950	810,980	819,089	827,280	835,553
Gosfield N. Twsp	613,636	617,057	649,000	106%	645,000	651,450	657,965	664,544	671,190	677,901
Gosfield S. Twsp	5,022,727	4,646,459	4,912,000	98%	5,020,000	5,070,200	5,120,902	5,172,111	5,223,832	5,276,070
Highbury CanCo	977,273	1,092,286	1,146,000	117%	1,150,000	1,161,500	1,173,115	1,184,846	1,196,695	1,208,662
Kingsville PUC	659,091	607,693	642,000	97%	650,000	656,500	663,065	669,696	676,393	683,157
Leamington PUC	7,045,455	7,680,763	8,096,000	115%	8,150,000	8,231,500	8,313,815	8,396,953	8,480,923	8,565,732
Lakeshore	477,273	510,516	534,000	112%	540,000	545,400	550,854	556,363	561,926	567,545
Total Flow:	15,590,909	15,903,970	16,771,000	108%	16,950,000	17,119,500	17,290,695	17,463,602	17,638,238	17,814,620
	3,430,000,000	3,498,873,380	3,689,620,000		3,729,000,000	3,766,290,000	3,803,952,900	3,841,992,429	3,880,412,353	3,919,216,477
					101%	101%	101%	101%	101%	101%
Rate 1 Flow	15,590,909	15,903,970	16,771,000	108%	16,950,000	17,119,500	17,290,695	17,463,602	17,638,238	17,814,620
Rate 1	\$0.6210	\$0.6210	\$0.6210		\$0.6458	\$0.6716	\$0.6985	\$0.7264	\$0.7555	\$0.7857
Rate 1 Revenue	\$9,681,955	\$9,876,365	\$10,414,791	108%	\$10,946,310	\$11,497,456	\$12,077,550	\$12,685,560	\$13,325,689	\$13,996,947
Rate 2 Flow	0	0	0		0	0	0	0	0	0
Rate 2	\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Rate 2 Revenue	\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Rate 3 Flow	0	0	0		0	0	0	0	0	0
Rate 3 Flow	\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Rate 3 Revenue	\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Lifecycle Rate	\$0.0791	\$0.0791	\$0.0791		\$0.0791	\$0.0791	\$0.0791	\$0.0791	\$0.0791	\$0.0791
	\$1,233,553	\$1,258,322	\$1,326,922		\$1,341,084	\$1,354,495	\$1,368,040	\$1,381,720	\$1,395,537	\$1,409,493
Total Revenue	\$9,681,955	\$9,876,365	\$10,414,791	108%	\$10,946,310	\$11,497,456	\$12,077,550	\$12,685,560	\$13,325,689	\$13,996,947

UNION WATER SUPPLY SYSTEM JOINT BOARD OF MANAGEMENT  
2020 Draft Budget  
Budget Summary

	2019	2019	2019	2020	2021	2022	2023	2024	2025
	Approved Budget	Forecasted to Dec 31st	Forecasted % of Budget at Dec. 31st	Rate Increase of \$0.0248 per m3 (4%)	Rate Increase of \$0.0253 per m3 (4%)	Rate Increase of \$0.0263 per m3 (4%)	Rate Increase of \$0.0274 per m3 (4%)	Rate Increase of \$0.0284 per m3 (4%)	Rate Increase of \$0.0296 per m3 (4%)
<b>Water Flows</b>									
<b>REVENUE</b>									
Senior Government Grants	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Wholesale Rate Billings	\$9,681,955	\$10,414,791	108%	\$10,946,310	\$11,497,456	\$12,077,550	\$12,685,560	\$13,325,689	\$13,996,947
Investment Income	\$450,000	\$513,000	114%	\$459,000	\$468,180	\$477,544	\$487,094	\$496,836	\$506,773
Sundry revenue	\$21,000	\$21,000	100%	\$21,420	\$21,848	\$22,285	\$22,731	\$23,186	\$23,649
<b>TOTAL REVENUES</b>	<b>\$10,152,955</b>	<b>\$10,948,791</b>	<b>108%</b>	<b>\$11,426,730</b>	<b>\$11,987,485</b>	<b>\$12,577,379</b>	<b>\$13,195,386</b>	<b>\$13,845,711</b>	<b>\$14,527,370</b>
<b>OPERATING EXPENDITURE</b>									
General Administration	\$344,250	\$338,383	98%	\$359,115	\$354,077	\$359,139	\$364,302	\$369,568	\$374,939
Leamington Assistance	\$30,000	\$30,000	100%	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Miscellaneous Legal/Professional fees	\$90,000	\$95,000	106%	\$75,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000
OCWA Operating Contract	\$3,265,000	\$3,100,000	95%	\$3,330,300	\$3,396,906	\$3,464,844	\$3,534,141	\$3,604,824	\$3,676,920
Programs and Studies	\$180,000	\$120,000	67%	\$285,000	\$210,000	\$185,000	\$185,000	\$185,000	\$185,000
Operational/Maintenance/Upgrades - General	\$250,000	\$220,000	88%	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
Property Taxes	\$147,500	\$147,500	100%	\$147,500					
CO2 Liquified Gas Procurement	\$175,000	\$0	0%	\$178,500	\$182,070	\$185,711	\$189,426	\$193,214	\$197,078
Electricity and Natural Gas	\$1,250,000	\$1,200,000	96%	\$1,275,000	\$1,300,500	\$1,326,510	\$1,353,040	\$1,380,101	\$1,407,703
<b>TOTAL OPERATING EXPENDITURES</b>	<b>\$5,731,750</b>	<b>\$5,647,000</b>	<b>99%</b>	<b>\$5,930,415</b>	<b>\$5,768,553</b>	<b>\$5,846,204</b>	<b>\$5,950,908</b>	<b>\$6,057,707</b>	<b>\$6,166,641</b>
Debt Service	\$2,332,441	\$2,332,441	100%	\$2,351,279	\$2,370,377	\$2,389,596	\$2,408,934	\$2,428,392	\$2,449,323
<b>TOTAL DEBT SERVICE EXPENDITURES</b>	<b>\$2,332,441</b>	<b>\$2,332,441</b>	<b>100%</b>	<b>\$2,351,279</b>	<b>\$2,370,377</b>	<b>\$2,389,596</b>	<b>\$2,408,934</b>	<b>\$2,428,392</b>	<b>\$2,449,323</b>
<b>CAPITAL EXPENDITURE</b>									
Capital Repair, Maintenance & Upgrade Works	\$5,735,000	\$4,243,303	74%	\$5,050,000	\$4,340,000	\$8,705,000	\$4,865,000	\$4,390,000	\$4,210,000
Contingency									
<b>TOTAL CAPITAL EXPENDITURES</b>	<b>\$5,735,000</b>	<b>\$4,243,303</b>	<b>74%</b>	<b>\$5,050,000</b>	<b>\$4,340,000</b>	<b>\$8,705,000</b>	<b>\$4,865,000</b>	<b>\$4,390,000</b>	<b>\$4,210,000</b>
<b>NET SURPLUS/(DEFICIT)</b>	<b>(\$3,646,236)</b>	<b>(\$1,273,953)</b>	<b>35%</b>	<b>(\$1,904,964)</b>	<b>(\$491,446)</b>	<b>(\$4,363,421)</b>	<b>(\$29,456)</b>	<b>\$969,612</b>	<b>\$1,701,406</b>

	2019	2019	2020	2021	2022	2023	2024	2025
	Budget	Forecast	Budget	Budget	Budget	Budget	Budget	Budget
Operating & Capital Reserves	\$8,537,613	\$8,537,613	\$7,263,660	\$5,358,696	\$6,467,250	\$2,953,829	\$5,824,373	\$7,343,985
Addition/(subtraction) from Operations Budget.	(\$3,646,236)	(\$1,273,953)	(\$1,904,964)	(\$491,446)	(\$4,363,421)	(\$29,456)	\$969,612	\$1,701,406
Addition/(Subtraction) from Rate Stabilization Reserve	\$0	\$0	\$0	\$1,600,000	\$850,000	\$2,900,000	\$550,000	\$120,000
Total Operating & Capital Reserves	\$4,891,377	\$7,263,660	\$5,358,696	\$6,467,250	\$2,953,829	\$5,824,373	\$7,343,985	\$9,165,391
Rate Stabilization Reserve	\$10,255,000	\$10,516,503	\$10,784,673	\$11,059,682	\$9,741,704	\$9,140,118	\$6,422,920	\$6,001,379
Interest (GIC at 2.55%)	\$261,503	\$268,171	\$275,009	\$282,022	\$248,413	\$182,802	\$128,458	\$120,028
Subtotal Rate Stabilization Reserve	\$10,516,503	\$10,784,673	\$11,059,682	\$11,341,704	\$9,990,118	\$9,322,920	\$6,551,379	\$6,121,406
(Subtraction) from Rate Stabilization Reserve	\$0	\$0	\$0	(\$1,600,000)	(\$850,000)	(\$2,900,000)	(\$550,000)	(\$120,000)
Total Rate Stabilization Reserve	\$10,516,503	\$10,784,673	\$11,059,682	\$9,741,704	\$9,140,118	\$6,422,920	\$6,001,379	\$6,001,406
<b>Total Reserves</b>	<b>\$15,407,879</b>	<b>\$18,048,333</b>	<b>\$16,418,378</b>	<b>\$16,208,955</b>	<b>\$12,093,947</b>	<b>\$12,247,293</b>	<b>\$13,345,364</b>	<b>\$15,166,797</b>
Sun Life Debt	\$11,832,897	\$11,832,897	\$10,678,259	\$9,375,773	\$7,908,943	\$6,259,451	\$4,401,835	\$2,310,158

UNION WATER SUPPLY SYSTEM JOINT BOARD OF MANAGEMENT										
2020 Draft Budget										
Operational Revenue Expenditures										
		2019	2019	2019	2020	2021	2022	2023	2024	2025
Number	Account Description	Approved Budget	Forecasted to Dec 31st	Forecasted % of Budget at Dec. 31st	Rate Increase of \$0.0248 per m3 (4%)	Rate Increase of \$0.0253 per m3 (4%)	Rate Increase of \$0.0263 per m3 (4%)	Rate Increase of \$0.0274 per m3 (4%)	Rate Increase of \$0.0284 per m3 (4%)	Rate Increase of \$0.0296 per m3 (4%)
<b>REVENUE ACCOUNTS</b>										
FEES REVENUE										
0700-3700	Wholesale Rate Billings	\$9,681,955	\$10,414,791	108%	\$10,946,310	\$11,497,456	\$12,077,550	\$12,685,560	\$13,325,689	\$13,996,947
		\$9,681,955	\$10,414,791	108%	\$10,946,310	\$11,497,456	\$12,077,550	\$12,685,560	\$13,325,689	\$13,996,947
MISCELLANEOUS REVENUES										
0700-4100	Investment Income (Operations)	\$450,000	\$513,000	114%	\$459,000	\$468,180	\$477,544	\$487,094	\$496,836	\$506,773
0700-3999	Sundry revenue	\$21,000	\$21,000	100%	\$21,420	\$21,848	\$22,285	\$22,731	\$23,186	\$23,649
		\$471,000	\$534,000	113%	\$480,420	\$490,028	\$499,829	\$509,826	\$520,022	\$530,422
TOTAL REVENUES :		\$10,152,955	\$10,948,791	108%	\$11,426,730	\$11,987,485	\$12,577,379	\$13,195,386	\$13,845,711	\$14,527,370
<b>EXPENDITURE ACCOUNTS</b>										
WAGES AND BENEFITS										
0700-5000	Salaried	\$180,000	\$175,000	97%	\$183,600	\$187,272	\$191,017	\$194,838	\$198,735	\$202,709
	Part time	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0
0700-5200 to 5210	Benefits - Full time	\$63,250	\$64,000	101%	\$64,515	\$65,805	\$67,121	\$68,464	\$69,833	\$71,230
	Benefits - Part time	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0
		\$243,250	\$239,000	98%	\$248,115	\$253,077	\$258,139	\$263,302	\$268,568	\$273,939
OFFICE OVERHEAD, RENTS AND SERVICES										
0700-7010	Office supplies	\$2,000	\$1,750	88%	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
0700-7015	Board expenses	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0
0700-7020	Dues, Memberships, Subsc	\$5,000	\$3,000	60%	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
0700-7030	Travel & Mileage	\$2,500	\$3,000	120%	\$3,000	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
0700-7040	Training	\$6,000	\$4,500	75%	\$8,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
0700-7050	Conferences	\$6,000	\$11,000	183%	\$10,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
0700-7052	Meeting Expenses	\$2,000	\$2,000	100%	\$3,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
0700-7070	Uniforms/Clothing	\$500	\$500	100%	\$500	\$500	\$500	\$500	\$500	\$500
0700-7950	Legal/Professional fees	\$90,000	\$95,000	106%	\$75,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000
0700-7959-002070	Audit Fees	\$6,500	\$6,197	95%	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500
0700-7080 & 7085	Operational Purchases/Maint.	\$17,500	\$17,500	100%	\$20,000	\$17,500	\$17,500	\$17,500	\$17,500	\$17,500
0700-7110	Communications	\$1,500	\$900	60%	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
0700-7120	Postage & Courier	\$500	\$250	50%	\$500	\$500	\$500	\$500	\$500	\$500
0700-7130	Advertising & Promotion	\$7,000	\$5,000	71%	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000
0700-7140	Insurance	\$15,000	\$15,286	102%	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
0700-7130	Donations & Grants	\$4,000	\$3,000	75%	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
0700-7230 to 7290	Office equipment Purchases/Maint.	\$5,000	\$5,500	110%	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
	Facility Enhancements - General	\$20,000	\$20,000	100%	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
		\$191,000	\$194,383	102%	\$186,000	\$146,000	\$146,000	\$146,000	\$146,000	\$146,000
0700-6720	OCWA Operating Union	\$3,265,000	\$3,100,000	95%	\$3,330,300	\$3,396,906	\$3,464,844	\$3,534,141	\$3,604,824	\$3,676,920
0700-6750	Property Taxes	\$147,500	\$147,500	100%	\$147,500	\$147,500	\$147,500	\$147,500	\$147,500	\$147,500
0700-7090	Leamington Assistance	\$30,000	\$30,000	100%	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
0700-7090	Sundry	\$250	\$250	100%	\$0	\$0	\$0	\$0	\$0	\$0
0700-7410 & 7420	Electricity and Natural Gas	\$1,250,000	\$1,200,000	96%	\$1,275,000	\$1,300,500	\$1,326,510	\$1,353,040	\$1,380,101	\$1,407,703
	CO2 Gas Bulk Purchase	\$175,000	\$0	0%	\$178,500	\$182,070	\$185,711	\$189,426	\$193,214	\$197,078
0700-7989-002070	Operational Programs & Studies	\$180,000	\$120,000	67%	\$285,000	\$210,000	\$185,000	\$185,000	\$185,000	\$185,000
	Residuals Ponds Maintenance	\$150,000	\$120,000	80%	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
	Watermain Repairs	\$100,000	\$100,000	100%	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
TOTAL OPERATIONAL EXPENDITURES:		\$5,732,000	\$5,251,133	92%	\$5,930,415	\$5,916,053	\$5,993,704	\$6,098,408	\$6,205,207	\$6,314,141
NET OPERATIONAL SURPLUS/(DEFICIT)		\$4,420,955	\$5,697,658	129%	\$5,496,315	\$6,071,431	\$6,583,675	\$7,096,978	\$7,640,504	\$8,213,229
<b>DEBT SERVICE</b>										
0700-6000 & 6100	Sun Life Debt Obligation	\$2,332,441	\$2,332,441	100%	\$2,351,279	\$2,370,377	\$2,389,596	\$2,408,934	\$2,428,392	\$2,449,323
0700-6000 & 6100	Woodslee Credit Union									
0700-6000 &6100	OSIFA									
0700-6010 &6110	Leamington WM									
TOTAL DEBT SERVICE:		\$2,332,441	\$2,332,441	100%	\$2,351,279	\$2,370,377	\$2,389,596	\$2,408,934	\$2,428,392	\$2,449,323
SURPLUS/(DEFICIT) AFTER DEBT		\$2,088,514	\$3,365,217	161%	\$3,145,036	\$3,701,054	\$4,194,079	\$4,688,044	\$5,212,112	\$5,763,906

**Union Water Supply System  
2020 Draft Budget -  
2019 Capital Expenditures**

<u>Item Description</u>	<b>2019 Approved Study/ Capital Budget</b>	<b>Projected Expenditures to Dec. 31st</b>	<b>Projected % of Budget to Dec. 31st</b>	<b>Amounts Proposed for Inclusion in 2020 Budget</b>	<b>Comments</b>
<b><u>Studies and Programs</u></b>					
Water Demand/usage/quality initiatives	\$60,000	\$60,000	100%	\$0	On-going until end of November
New Ruthven WTP Reservoir #3 Study	\$40,000	\$0	0%	\$40,000	Will be included in 2020 Budget
Backup power generation/ energy study	\$40,000	\$20,000	50%	\$20,000	Will continue into 2020
Secondary Disinfection Review	\$40,000	\$40,000	100%	\$0	Completed
<b>Total Studies/Programs:</b>	<b>\$180,000</b>	<b>\$120,000</b>	<b>67%</b>	<b>\$60,000</b>	
<b><u>Capital Works and Major Maintenance</u></b>					
Low Lift Pump #1 Rehab	\$35,000	\$14,716	42%	\$0	Completed
Blue Green Algae/ Chlorophyll Probe - Low lift well	\$30,000	\$0	0%	\$0	Moved to 2020
Low Lift Surge Tanks - Ladders and new compressors	\$40,000	\$0	0%	\$0	On-hold
Low Lift Main Electrical-Transformer/Feed/Switch Gear/Breaker Upgrades	\$200,000	\$30,000	15%	\$170,000	Design being completed. Purchase and Install in 2020 Budget
Flow Meters and Control Valves - Clarifier #1 and #3	\$25,000	\$16,257	65%	\$0	Completed
Carbon Feed Pumps (2)	\$30,000	\$27,923	93%	\$0	Completed
Carbon Recirculation Pump Rehab	\$10,000	\$10,000	100%	\$0	Will be completed in December
Carbon Scrubber System Upgrade	\$50,000	\$0	0%	\$50,000	To be included in 2020 Budget
Turbidity Meters for Clarifier #3 and #4	\$10,000	\$12,211	122%	\$0	completed
Filter #2 and #4 Inlet Gate Replacement	\$30,000	\$30,000	100%	\$0	Gate valves purchased. To be installed in December
Filter Meter Replacements - Filters 5,6,7 &8	\$35,000	\$35,000	100%	\$0	New valves/equipment purchased. Install start in November
Chlorine Analyzers - 5 units	\$25,000	\$23,843	95%	\$0	Completed
Highlift Pump #10 (renamed HL #7) - NEW	\$250,000	\$35,000	14%	\$215,000	In design stage. Tender in January 2020
Upside Down Valve Corrosion Protection	\$100,000	\$63,353	63%	\$0	Completed
Lighting Upgrade - Exterior Areas	\$10,000	\$0	0%	\$0	Completed through OCWA budget.
Laboratory Upgrades	\$100,000	\$15,000	15%	\$85,000	On-hold until CO2 project complete. Start design in November
Power Factor Capacitor Upgrades - Low Lift and High Lift	\$50,000	\$0	0%	\$0	Will be part of Backup electrical generation capacity study in 2020
Energy Monitoring and Management System - High Lift	\$35,000	\$35,000	100%	\$0	Completed. Awaiting invoice
SCADA System Upgrades (continued from 2018)	\$1,035,000	\$875,000	85%	\$155,000	In progress. Completion scheduled for February 2020
Security System Install	\$60,000	\$0	0%	\$60,000	On-hold until SCADA project complete. 2020 Budget item
Cottam Booster Reservoir Regrading/Drainage	\$60,000	\$60,000	100%	\$0	Completed.
Rechlorination System Upgrades	\$30,000	\$10,000	33%	\$0	In-progress.
Distribution System Components	\$75,000	\$50,000	67%	\$0	On-going
Master Water Meters Upgrades	\$50,000	\$0	0%	\$50,000	Awaiting completion of SCADA system. For 2020 Budget
DAF System Design	\$150,000	\$30,000	20%	\$120,000	Preliminary Stage; Detailed design to start in November
Chlorine Gas System Improvements and New Scrubber	\$1,550,000	\$1,400,000	90%	\$150,000	In progress. Substantial Completion scheduled for Mid January
CO2 pH Adjustment System Construction	\$1,550,000	\$1,400,000	90%	\$150,000	In progress. Substantial Completion scheduled for Mid January
<b>Total Capital Works and Major Maintenance:</b>	<b>\$5,625,000</b>	<b>\$4,173,303</b>	<b>74%</b>	<b>\$1,205,000</b>	
<b><u>Maintenance and Repairs</u></b>					
Grounds Improvements	\$50,000	\$30,000	60%	\$20,000	On-going
Treatment Plant Bldg Improvements - Admin Area/New offices	\$30,000	\$30,000	100%	\$0	On-going
UWSS Wide Communication Upgrades	\$20,000	\$10,000	50%	\$10,000	On-going
Wastewater Pumps Rehab	\$10,000	\$0	0%	\$0	Completed under OCWA budget
<b>Total Maintenance and Repairs:</b>	<b>\$110,000</b>	<b>\$70,000</b>	<b>64%</b>	<b>\$30,000</b>	
<b>Total Capital Works:</b>	<b>\$5,735,000</b>	<b>\$4,243,303</b>	<b>74%</b>	<b>\$1,235,000</b>	

## UNION WATER SUPPLY SYSTEM JOINT BOARD OF MANAGEMENT

2020 Draft Budget  
Proposed Capital Budget

CATEGORY								FUNDING SOURCE		
Item Description	Studies	Treatment Plant Upgrades & Renewals	Low Lift Upgrades	Cottam Booster Upgrades	SCADA / Communication/ Security System Upgrades	Electrical Systems	Transmission Facilities	TOTAL	Revenue	Reserves
<b><u>STUDIES/PROGRAMS</u></b>										
Water Demand/ Water Loss/ Water Quality Initiatives	\$75,000							\$75,000	\$75,000	\$0
Lake Erie Hab Monitoring Project - UWSS & Univ. of Windsor/GLIER	\$100,000							\$100,000	\$100,000	\$0
Emergency Water Servicing Study - UWSS & WUC	\$30,000							\$30,000	\$30,000	\$0
New Ruthven WTP Reservoir #3 Study	\$40,000							\$40,000	\$40,000	\$0
Backup power generation/ energy study	\$40,000							\$40,000	\$40,000	\$0
<b>Total Studies/Programs</b>	<b>\$285,000</b>							<b>\$285,000</b>	<b>\$285,000</b>	<b>\$0</b>
<b><u>CAPITAL WORKS/ MAJOR MAINTENANCE</u></b>										
Low Lift Pump #5 Rehab			\$35,000					\$35,000	\$35,000	\$0
Low Lift Roof Replacement			\$90,000					\$90,000	\$90,000	\$0
Blue Green Algae/ Chlorophyll Probe - Low lift well			\$30,000					\$30,000	\$30,000	\$0
Low Lift Main Electrical-Transformer/Feed/Switch Gear/Breaker Upgrades						\$250,000		\$250,000	\$250,000	\$0
Carbon Recirculation Pump - New		\$10,000						\$10,000	\$10,000	\$0
Filter # 4 - Rehab (recoat filter box; new underdrains)		\$400,000						\$400,000	\$400,000	\$0
Highlift Pump #7 - New		\$250,000						\$250,000	\$250,000	\$0
New Panel, Quick Connect & Transfer Switch for Portable Generator		\$60,000						\$60,000	\$60,000	\$0
SCADA System Upgrades (continued from 2019)		\$250,000						\$250,000	\$250,000	\$0
Security System Install					\$85,000			\$85,000	\$85,000	\$0
UWSS Wide Communication Upgrades					\$20,000			\$20,000	\$20,000	\$0
Cottam Booster - Review Baffling to improve reservoir mixing				\$30,000				\$30,000	\$30,000	\$0
Kingsville Water Tower Recoating; Safety Upgrades; Improvements							\$1,300,000	\$1,300,000	\$1,095,000	\$205,000
Distribution System Components							\$200,000	\$200,000	\$200,000	\$0
Master Water Meters Upgrades							\$50,000	\$50,000	\$50,000	\$0
Laboratory Upgrades		\$100,000						\$100,000	\$100,000	\$0
Treatment Plant Bldg Improvements - Admin Area/New offices		\$45,000						\$45,000	\$45,000	\$0
Grounds Improvements (landscaping; asphalt/road repairs, etc)		\$100,000						\$100,000	\$100,000	\$0
Fencing - Treatment Plant Property; Leamington Water Tower Property		\$45,000						\$45,000	\$45,000	\$0
<b>Total Capital Works/ Major Maintenance</b>		<b>\$1,260,000</b>	<b>\$155,000</b>	<b>\$30,000</b>	<b>\$105,000</b>	<b>\$250,000</b>	<b>\$1,550,000</b>	<b>\$3,350,000</b>	<b>\$3,145,000</b>	<b>\$205,000</b>
<b><u>NEW CAPITAL WORKS</u></b>										
DAF System Design/ Build (Project Will start in Fall 2020; complete in 2021. Total budget \$2,500,000)		\$1,400,000						\$1,400,000	\$0	\$1,400,000
Chlorine Gas System Improvements and New Scrubber		\$150,000						\$150,000	\$0	\$150,000
CO2 pH Adjustment System Construction		\$150,000						\$150,000	\$0	\$150,000
<b>Total New Capital Works</b>		<b>\$1,700,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,700,000</b>	<b>\$0</b>	<b>\$1,700,000</b>
<b>TOTAL MAJOR MAINTENANCE and CAPITAL</b>		<b>\$2,960,000</b>	<b>\$155,000</b>	<b>\$30,000</b>	<b>\$105,000</b>	<b>\$250,000</b>	<b>\$1,550,000</b>	<b>\$5,050,000</b>	<b>\$3,145,000</b>	<b>\$1,905,000</b>
<b>TOTAL MAINTENANCE, CAPITAL and STUDIES</b>								<b>\$5,335,000</b>		

**UWSS 6-YEAR CAPITAL PLAN  
TABLES AND DETAILS**



UNION WATER SUPPLY SYSTEM  
Six Year Recommended Capital / Major Maintenance -  
December 13, 2019

***DRAFT FOR 2020***

	2020	2021	2022	2023	2024	2025	Total Capital Expenditures 2018-2024	Comments
Union Area Water Supply System								
Studies and Programs								
							\$ -	Smart Water Study, etc.
Water Demand/Water Loss/Water Usage/ Water Quality Initiatives	\$ 75,000	\$ 60,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 275,000	CWN Algae Study, Corrosion Monitoring
Lake Erie HAB Monitoring Study - UWSS & U of Windsor	\$ 100,000						\$ 100,000	
Emergency Water Servicing Study - UWSS / WUC	\$ 30,000						\$ 30,000	
New Ruthven WTP Reservoir #3 Study	\$ 40,000						\$ 40,000	M&T System installation in 2017 for Low Lift
Backup power generation / energy study	\$ 40,000						\$ 40,000	
Cottam 12-inch main replacement- EA & Prelim Eng							\$ -	Evaluation of Options and Prelim Engineering for Replacement of 12-inch WM to Cottam
Master Plan Update							\$ -	
Contingency (un-identified future studies)		\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 750,000	
Subtotal Studies and Programs	\$ 285,000	\$ 210,000	\$ 185,000	\$ 185,000	\$ 185,000	\$ 185,000	\$ 1,235,000	
Low Lift								
Intake #1 & 2* (Note 5)					\$ 30,000	\$ 30,000	\$ 60,000	Maintenance
Intake # 2 (See Item 16 for more detail)			\$ 30,000				\$ 30,000	Maintenance
Intake # 3, shoreline intake							\$ -	Improvements needed to make fully functional
Coarse Bar Screen (2)							\$ -	maintenance not required
Travelling Screen #1							\$ -	replaced in 2008 \$110,000.
Travelling Screen #2							\$ -	Replaced in 2012
Travelling Screen #3							\$ -	installed in 1994; upgrades planned for 2020
Pump Wells(2)							\$ -	cleaned & inspected annually
Low Lift Pump 1 *(Note 1)							\$ -	rebuilt in 2018
Low Lift Pump 2				\$ 35,000			\$ 35,000	rebuilt in 2017
Low Lift Pump 3			\$ 30,000				\$ 30,000	rebuilt in 2016
Low Lift Pump 4				\$ 30,000			\$ 30,000	rebuilt in 2007
Low Lift Pump 5	\$ 35,000				\$ 30,000	\$ 30,000	\$ 95,000	
Low Lift Pump 6							\$ -	rebuilt in 2008
Low Lift Pump 7		\$ 35,000					\$ 35,000	rebuilt in 2008
Zebra Mussel Control System							\$ -	Zebra mussel intake upgrades
Pump discharge line							\$ -	
Low Lift Surge Tanks (2) and Compressor System *(Note 6)							\$ -	Ladder/safety system; 2 new compressors needed
Low Lift Roof Replacement	\$ 90,000						\$ 90,000	
Low Lift Diesel Generator							\$ -	O & M Contracted to Genrep
Low Lift transformer, feed, switch gear, breaker upgrades	\$ 250,000						\$ 250,000	Electrical Transformer, switchgear etc is obsolete Needs to be upgraded
General Building Maintenance & Equipment								
Roadway upgrades to Maintenance Area -			\$ 75,000				\$ 75,000	upgrade of roadway to rear plant area
New Maintenance Shop Building							\$ -	
Building/Grounds -	\$ 100,000	\$ 50,000	\$ 100,000				\$ 250,000	Conc. Pad for Generator; Low lift road upgrades; VC26
Fencing- Treatment Plant Property; Leamington Water Tower	\$ 45,000							
Upgrades to Pole Barn - Roof, electric, etc.							\$ -	
							\$ -	
Clarification System							\$ -	
Clarifier 1 -							\$ -	New Flow meter and control valve
Clarifier 2 -							\$ -	To be retrofitted to DAF in 2020
Clarifier 3							\$ -	New Flow meter and control valve

Clarifier 4							\$	-
Chemical System							\$	-
Coagulant Feed System		\$	30,000				\$	30,000
Coagulant Storage							\$	-
Coagulant Aid System							\$	-
Carbon Feed System							\$	-
Carbon Flushing Lines							\$	-
Tank Mixers (3)							\$	-
Recirc. Pump	\$	10,000					\$	10,000
Slurry Transfer Pumps (2)							\$	-
Carbon Feed Pumps (4)			\$	40,000			\$	40,000
Carbon Scrubber System							\$	-
Filtration							\$	-
Filter 1							\$	-
Filter 2							\$	-
Filter 3							\$	-
Filter 4	\$	400,000					\$	400,000
Filter 5							\$	-
Filter 6							\$	-
Filter 7							\$	-
Filter 8							\$	-
Turbidity Meters for Filter Backwash							\$	-
Filter Meter Replacements							\$	-
Valves							\$	-
Removal of Microstrainers/ Install of Flooring							\$	-
Pumps								
Backwash Pump 1 - Actuator upgrade							\$	-
Backwash Pump 2			\$	100,000			\$	100,000
High Lift Pump 1 *(Note 2) Diesel Pump							\$	-
High Lift Pump 2							\$	-
High Lift Pump 3							\$	-
High Lift Pump 4							\$	-
High Lift Pump 5							\$	-
High Lift Pump 6							\$	-
High Lift Pump 7	\$	250,000					\$	-
High Lift Pump 8							\$	250,000
High Lift Pump 9			\$	125,000			\$	-
High Lift Pump No. 10							\$	125,000
High Lift Reservoirs and components		\$	50,000		\$	50,000	\$	-
High Lift Reservoirs and components							\$	100,000
Wastewater Pumps (2)			\$	10,000			\$	10,000
Diesel Generator 1 (170 kW)							\$	-
Diesel Generator 2 (750 kW)							\$	-
Diesel Generator Upgrades					\$	2,000,000	\$	1,500,000
HL Compressor 1							\$	3,500,000
HL Compressor 2							\$	-
HL Compressor 3		\$	15,000	\$	15,000		\$	-
HL Compressor 3							\$	30,000
Main Plant Electrical								
Panel, Quick Connect & Transfer Switch for Portable Generator	\$	60,000					\$	60,000
Power Factor Capacitors for Energy Management							\$	-
Energy Monitoring and Management System - High Lift							\$	-
Generator B Transfer Switch Automation							\$	-
Disinfection								
Dehumidification							\$	-
Chlorine Feed System							\$	-
Ammonia Feed System							\$	-
Scrubber System							\$	-
SCADA /Communication/Security								
Security System Install	\$	85,000					\$	85,000
System upgrade and Maintenance	\$	250,000	\$	30,000	\$	30,000	\$	30,000
System upgrade and Maintenance							\$	400,000
UWSS Wide Communication System Improvements	\$	20,000	\$	20,000	\$	50,000	\$	20,000
UWSS Wide Communication System Improvements							\$	20,000
UWSS Wide Communication System Improvements							\$	150,000
Monitoring Equipment								

Upgraded in 2013
System upgraded 2015
Inspection and refurburbishment needed
Larger pumps required
requires upgrade
Fully upgraded in 2012
new media/air scour in 2014; new inlet gate needed
Fully upgraded in 2013
Filter leaking; needs recoating and new underdrains
New Media in 2017
new media in 2018
New Media in 2017
new media in 2018
New items to optimize backwash process
New Filter meters for Filters 6-8
Completed in 2016-2017
Microstrainer No. 2 to be removed
new actuator
new in 1996
motor repairs 2018
Replaced 2013
rebuilt 2006
rebuilt 2007
rebuilt 2008
new pump 2013
new in 1996, rebuilt 2015
new in 1996
New pump needed in newer high lift bay
Upside down valve/piping corrosion protection
RSP #2 replacement
New voltage regulator and associated components
Replacement
Replacement
Replacement
New Panel & Quick Connects for Portable Generator, etc.
Capacitors are failing. Upgrades needed
Completed in 2014
installed new in 2002
new acid pump installed in 2009
Keyless entry security system
New SCADA System in 2018/2019; maintenance after
improvements to existing communication system



Turbidity Meter Replacement -								\$	-	For clarifiers #3 and #4 monitoring				
Chlorine Analyzer Replacements								\$	-	4 new units needed				
Blue Green Algae Monitoring Probe								\$	30,000	2 new units needed				
Building Maintenance														
Facility Enhancements - General								\$	-					
Maintenance Shop Roof Replacement								\$	-	Roof Leaking and Needs to be Replaced				
Windows & Doors Replacement								\$	-	asbestos like material present in window caulking, portion to				
Admin Building								\$	45,000					
Laboratory Upgrade								\$	100,000	Laboratory to be moved to old microstrainer room and				
New Equipment														
Portable Backup Generator for Low Lift, Water Towers, Emergency								\$	-	Purchased in 2016				
Cottam Reservoir & Booster PS														
Reservoir								\$	30,000	Review Baffling to improve reservoir mixing				
Booster Pump 1								\$	-	new in 1996				
Booster Pump 2								\$	-	new in 1996				
Booster Pump 3								\$	15,000	new in 1996				
Booster Pump 4								\$	-	new in 1996				
Surge Tanks (2)								\$	-	Insurance inspected in 2009, needs internal inspection				
Compressor								\$	15,000	Replaced 2012				
Reservoir Cover Regrading/Repairs								\$	-	Started in Dec. 2018/to be completed in 2019				
Rechlorination system upgrades								\$	-	Rechlorination system is old and obsolete; needs upgrade				
Cottam MCC PLC Upgrade								\$	-	Completed 2014				
Distribution System														
Leamington Tower								\$	-	New Cathodic System installed in 2018				
Albuna Tower								\$	250,000	New Control Valve on 42inch for Albuna Control				
Kingsville Tower								\$	1,300,000	Safety Upgrades and Painting (2020)				
Essex Tower								\$	30,000	recoated and upgraded in 2018; new cathodic system 2020				
Distribution System Maintenance								\$	200,000	New Actuators for 1A/1B and other components				
Master Water Meter Replacement/Upgrades								\$	50,000	Cell Based reporting system				
Wastewater Treatment System														
Wastewater Lagoon Upgrades										Clay liner improvements				
Residuals Management system (see new capital works)								\$	-					
								\$	-					
NEW CAPITAL WORKS								\$	-					
								\$	-					
CO2 pH Adjustment System Install								\$	150,000	New CO2 based pH adjustment system/pretreatment				
UV Disinfection - In-reservoir UV vault								\$	-	New UV Disinfection System.				
Dry Scrubber - Chlorine Gas system upgraded								\$	150,000	Chlorine Building Expansion and Dry Scrubber Install				
Pre-Treatment/clarification upgrades (DAF) design								\$	1,400,000	Conversion of Clarifiers No 1 and 2 to DAF				
Residuals management Polymer system waste system upgrades										Residuals staging/ dewatering area and Polymer/thickening process for residuals				
								\$	250,000					
Admin Building upgrades, expansion and elevator										Office Admin area expansion and new elevator				
								\$	1,000,000					
Replacement of 12-inch Cottam Water Main										New 18-inch watermain to cottam				
								\$	250,000					
								\$	2,000,000					
								\$	6,000,000					
								\$	8,250,000					
Subtotal Capital and Major Maintenance								\$3,350,000	\$490,000	\$955,000	\$265,000	\$2,210,000	\$1,710,000	\$8,980,000
Total New Capital Works								\$1,700,000	\$3,850,000	\$7,750,000	\$4,600,000	\$2,180,000	\$2,500,000	\$22,580,000
TOTAL CAPITAL								\$5,050,000	\$4,340,000	\$8,705,000	\$4,865,000	\$4,390,000	\$4,210,000	\$31,560,000
														\$-
Subtotal Studies and Programs								\$285,000	\$210,000	\$185,000	\$185,000	\$185,000	\$185,000	\$1,235,000
Contingency														\$-
TOTAL CAPITAL, STUDIES AND NEW CAPITAL								\$5,335,000	\$4,550,000	\$8,890,000	\$5,050,000	\$4,575,000	\$4,395,000	\$32,795,000

**Dates for the Union Water Supply System Joint Board of Management Meetings  
for the 2020 Year**

January 15, 2020

February 19, 2020

March 18, 2020

April 15, 2020

May 20, 2020

June 17, 2020

July 15, 2020

August 19, 2020

September 16, 2020

October 21, 2020

November 18, 2020

December 16, 2020

All meetings will take place at the Ruthven Water Treatment Plant unless  
otherwise specified

UW/36/19

**To:** Chair and Members of the Union Water Supply  
System Joint Board of Management

**From:** Rodney Bouchard, Union Water Manager

**Date:** December 13, 2019

**Re:** Payments for the UWSS from October 11<sup>th</sup> to November 1<sup>st</sup>, 2019



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**Aim:**

To provide the Board with a copy of payments made by the Union Water Supply System from November 1<sup>st</sup> to December 13<sup>th</sup>, 2019.

**Recommendation:**

For information purposes.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'R. Bouchard', is positioned below the text 'Respectfully submitted,'.

Rodney Bouchard, Manager  
Union Water Supply System Joint Board of Management

/kmj

Filename: t:\union wtr\reports to board\2019\uw36-19 payments from nov to dec 2019.docx

## Council/Board Report By Dept-(Computer)



AP5130

Page : 33

Date : Nov 15, 2019

Page 36 of 43

Vendor : 0011450 To PT00000184

Batch : All

Department : All

Cheque Print Date : 14-Nov-2019 To 15-Nov-2019

Bank : 07 To 08

Class : All

Vendor Invoice	Vendor Name Description				Batch Invc Date	Inv Due Date	Amount
G.L. Account	CC1	CC2	CC3	GL Account Name			
<b>DEPARTMENT 0700 Union Water System</b>							
<b>200348 CORPORATION OF THE TOWN OF KINGSVILLE</b>							
300-01000 NO\ TAXES - 1391 UNION AVE					639 13-Nov-2019	14-Nov-2019	
70-5-0700-6750	002072			Property Tax			5,821.00
300-20100 NO\ TAXES - 1615 UNION AVE					639 13-Nov-2019	14-Nov-2019	
70-5-0700-6750	002072			Property Tax			57,748.00
590-02800 NO\ TAXES - 163 CTY RD 34E					639 13-Nov-2019	14-Nov-2019	
70-5-0700-6750	002072			Property Tax			8,923.00
G1163 KINGSVILLE AUTO-FLUSHER					639 23-Oct-2019	14-Nov-2019	
70-7-0700-8750	002202			Watermains			2,849.28
<b>050003 E.L.K. ENERGY INC</b>							
40010915-OCT 1551KWH - ESSEX WATER TOWER					639 01-Nov-2019	14-Nov-2019	
70-5-0700-7420	002073			Electricity			-20.98
70-5-0700-7420	002073			Electricity			296.49
40047150-OCT 152KWH - METER#9					639 01-Nov-2019	14-Nov-2019	
70-5-0700-7420	002073			Electricity			-3.34
70-5-0700-7420	002073			Electricity			47.19
51976611-OCT 1393KWH - KINGSVILLE WATER TOWER					639 01-Nov-2019	14-Nov-2019	
70-5-0700-7420	002073			Electricity			-13.92
70-5-0700-7420	002073			Electricity			196.84
90006300-OCT 16800KWH - COTTAM BOOSTER STATION					639 01-Nov-2019	14-Nov-2019	
70-5-0700-7420	002073			Electricity			3,913.98
<b>070153 GREATARIO INDUSTRIAL STORAGE SYSTEMS INC</b>							
J004837 ESSEX WATER TOWER - MIXER					639 30-Oct-2019	14-Nov-2019	
70-7-0700-8705				Essex Water Tower			20,537.75
<b>180325 RICOH CANADA INC</b>							
SCO92588431 COPIER CONTRACT - SEP23-OCT30					639 31-Oct-2019	14-Nov-2019	
70-5-0700-7010	002070			Office Supplies			109.68
<b>190893 SYLVAN AUTOMATION LTD</b>							
S97964 FILTERS #2/#4 - SLUICE VALVE GATE					639 31-Oct-2019	14-Nov-2019	
70-7-0700-8730	700012			Filters			6,921.25
70-7-0700-8730	700014			Filters			6,921.25
<b>Department Totals :</b>							<b>114,247.47</b>



Vendor : 0011450 To PT00000184

Batch : All

Department : All

EFT Paid Date : 14-Nov-2019 To 15-Nov-2019

Bank : 07 To 08

Class : All

Vendor Code	Vendor Name				Batch	Inv Date	Inv Due Date	Amount
Invoice No.	Description							
G.L. Account	CC1	CC2	CC3	GL Account Name				
<b>DEPARTMENT 0700 Union Water System</b>								
<b>050099 ENBRIDGE GAS INC</b>								
1929770177678	536.570M3 GAS - COTTAM BOOSTER STATION				643	11-Nov-2019	14-Nov-2019	
70-5-0700-7410	002073			Gas				184.63
<b>050195 ESSEX POWERLINES CORPORATION</b>								
253800-SEP19	NEW ACCOUNT - METER#23				643	05-Nov-2019	14-Nov-2019	
70-5-0700-7420	002073			Electricity				-2.64
70-5-0700-7420	002073			Electricity				33.90
70-5-0700-7420	002073			Electricity				37.28
<b>080250 HYDRO ONE NETWORKS INC</b>								
200141677460-1	OCT/19 HYDRO - RUTHVEN WATER TREATMENT				643	11-Nov-2019	14-Nov-2019	
70-5-0700-7420	002073			Electricity				97,133.59
200141680692-1	OCT/19 HYDRO - LOW LIFT				643	07-Nov-2019	14-Nov-2019	
70-5-0700-7420	002073			Electricity				-6.13
70-5-0700-7420	002073			Electricity				54,294.30
200152134969-1	OCT/19 HYDRO - METER#17				643	07-Nov-2019	14-Nov-2019	
70-5-0700-7420	002073			Electricity				-2.92
70-5-0700-7420	002073			Electricity				41.19
<b>130120 MAPLE REINDERS CONSTRUCTORS LTD</b>								
PC#6 24849	PMT#6 C02 INJ/CL2				643	30-Sep-2019	14-Nov-2019	
70-7-0700-8745	700200			Treatment Plant				365,921.19
70-7-0700-8745	700200			Treatment Plant				40,657.91
<b>150365 ONTARIO CLEAN WATER AGENCY</b>								
INV000116817	OCT/19 OPER&MTCE				643	31-Oct-2019	14-Nov-2019	
70-5-0700-6720	002071			OCWA Operating Contract				362,720.32
<b>190185 SGS CANADA INC. ENVIRONMENTAL SERVICES</b>								
11286958	WATER QUALITY STUDIES CORROSION-LAKESHORE				643	30-Oct-2019	14-Nov-2019	
70-5-0700-7989	002075			Operational Programs & Studies				98.31
11286960	WATER QUALITY STUDIES CORROSION-KINGSVILLE				643	30-Oct-2019	14-Nov-2019	
70-5-0700-7989	002075			Operational Programs & Studies				98.31
11286981	WATER QUALITY STUDIES CORROSION-UWSS				643	30-Oct-2019	14-Nov-2019	
70-5-0700-7989	002075			Operational Programs & Studies				384.20
11289504	WATER QUALITY STUDIES CORROSION-LEAMINGTON				643	11-Nov-2019	14-Nov-2019	
70-5-0700-7989	002075			Operational Programs & Studies				98.31
11289508	WATER QUALITY STUDIES CORROSION-ESSEX				643	11-Nov-2019	14-Nov-2019	
70-5-0700-7989	002075			Operational Programs & Studies				116.39
11289618	WATER QUALITY STUDIES CORROSION-UWSS				643	11-Nov-2019	14-Nov-2019	
70-5-0700-7989	002075			Operational Programs & Studies				310.75
<b>190755 SUN LIFE ASSURANCE COMPANY OF CANADA</b>								
NOV-19	NOV/19 UNION WATER LOAN 3724:1				643	01-Nov-2019	14-Nov-2019	
70-5-0700-6000	002020	006901		Debenture Principal				35,323.12
70-5-0700-6100	002010	006901		Debenture Interest				104,614.88
<b>Department Totals :</b>								<b>1,062,056.89</b>

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Batch : All

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Vendor Invoice	Vendor Name Description				Batch Invc Date	Inv Due Date	
G.L. Account	CC1	CC2	CC3	GL Account Name			Amount
<b>DEPARTMENT 0700 Union Water System</b>							
<b>010103 ASSOCIATED ENGINEERING (ONT) LTD</b>							
526640				SCADA - PROCESS NARRATIVE - NOV8	668 19-Nov-2019	28-Nov-2019	
70-7-0700-8780				SCADA System			4,080.08
526643				CO2 PH ADJUSTMENT SYSTEM	668 19-Nov-2019	28-Nov-2019	
70-7-0700-8745	700200			Treatment Plant			13,657.52
526644				RESERVOIR REVIEW (CO2 PH) - NOV8	668 19-Nov-2019	28-Nov-2019	
70-7-0700-8745	700040			Treatment Plant			12,766.06
526645				SECONDARY DISINFECTION REVIEW	668 19-Nov-2019	28-Nov-2019	
70-5-0700-7950	002070			Professional Services			9,621.95
<b>020120 BELL MOBILITY CELLULAR</b>							
514877178-NO				MONTHLY CELL PHONE CHARGES	651 01-Nov-2019	28-Nov-2019	
70-5-0700-7110	002070	002083		Telecommunications Usage			21.55
<b>030004 C3 WATER INC</b>							
201910-288				WATER MODEL REVIEW	668 31-Oct-2019	28-Nov-2019	
70-5-0700-7989	002075			Operational Programs & Studies			2,408.60
<b>060500 FEDEX</b>							
2-403-31645				DUTY CHARGES FOR WALL MOUNTS	668 02-Oct-2019	28-Nov-2019	
70-7-0700-8780				SCADA System			1,942.37
70-7-0700-8780				SCADA System			-1,745.70
70-7-0700-8780				SCADA System			90.40
<b>190751 SUMMA ENGINEERING LIMITED</b>							
PC#1 114814				PMT#1 SUMMA-INSTALLATION	668 31-Oct-2019	28-Nov-2019	
70-7-0700-8780				SCADA System			165,749.17
70-7-0700-8780				SCADA System			18,416.57
<b>230440 WILLIS BUSINESS LAW</b>							
11674				REVIEW OF DIGI TEL WEBS INC	668 31-Oct-2019	28-Nov-2019	
70-5-0700-7950	002070			Professional Services			1,834.27
11675				LEGAL FEES - RESTRUCTURING	668 31-Oct-2019	28-Nov-2019	
70-5-0700-7950	002070			Professional Services			4,668.03
<b>Department Totals :</b>							<b>233,510.87</b>



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Vendor Code	Vendor Name				Batch	Invc Date	Invc Due Date	Amount
Invoice No.	Description							
G.L. Account	CC1	CC2	CC3	GL Account Name				
DEPARTMENT 0700	Union Water System							
050099	ENBRIDGE GAS INC							
1929770208308	3555.385M3	GAS - RUTHVEN WATER TREATMENT			669	21-Nov-2019	28-Nov-2019	
70-5-0700-7410	002073	Gas						1,078.25
080250	HYDRO ONE NETWORKS INC							
200141683019-I	NOV/19 HYDRO - METER#3				669	14-Nov-2019	28-Nov-2019	
70-5-0700-7420	002073	Electricity						-2.87
70-5-0700-7420	002073	Electricity						40.54
70-5-0700-7420	002073	Electricity						-37.31
200141683726-I	NOV/19 HYDRO - METER #15				669	25-Nov-2019	28-Nov-2019	
70-5-0700-7420	002073	Electricity						-2.97
70-5-0700-7420	002073	Electricity						41.92
200208899066-I	NOV/19 HYDRO - METER#16				669	14-Nov-2019	28-Nov-2019	
70-5-0700-7420	002073	Electricity						-5.56
70-5-0700-7420	002073	Electricity						-7.24
70-5-0700-7420	002073	Electricity						104.31
150365	ONTARIO CLEAN WATER AGENCY							
INV000117556	ENERGY MONITORING				669	30-Oct-2019	28-Nov-2019	
70-7-0700-8745	700080	Treatment Plant						48,590.00
Department Totals :								49,799.07

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Vendor Invoice	Vendor Name Description				Batch Invc Date	Inv Due Date	
G.L. Account	CC1	CC2	CC3	GL Account Name			Amount
<b>DEPARTMENT 0700</b>				Union Water System			
<b>200348</b>				<b>CORPORATION OF THE TOWN OF KINGSVILLE</b>			
G1175				WATERMAIN BREAK - NOV6	688 02-Dec-2019	12-Dec-2019	
70-7-0700-8750	002202			Watermains			3,540.57
<b>050003</b>				<b>E.L.K. ENERGY INC</b>			
40010915-NOV				1763KWH - ESSEX WATER TOWER	688 01-Dec-2019	12-Dec-2019	
70-5-0700-7420	002073			Electricity			-38.74
70-5-0700-7420	002073			Electricity			421.70
40047150-NOV				514KWH - METER#9	688 01-Dec-2019	12-Dec-2019	
70-5-0700-7420	002073			Electricity			-12.50
70-5-0700-7420	002073			Electricity			136.13
51976611-NOV				1770KWH - KINGSVILLE WATER TOWER	688 01-Dec-2019	12-Dec-2019	
70-5-0700-7420	002073			Electricity			-21.41
70-5-0700-7420	002073			Electricity			233.07
90006300-NOV				19680KWH - COTTAM BOOSTER STATION	688 01-Dec-2019	12-Dec-2019	
70-5-0700-7420	002073			Electricity			5,191.85
<b>050250</b>				<b>EVANS UTILITY &amp; MUNICIPAL</b>			
159346				AUTO FLUSHERS - ESSEX	688 28-Nov-2019	12-Dec-2019	
70-7-0700-8750	002203			Watermains			8,788.46
<b>230440</b>				<b>WILLIS BUSINESS LAW</b>			
11937				LEGAL FEES - RESTRUCTURING	688 30-Nov-2019	12-Dec-2019	
70-5-0700-7950	002070			Professional Services			1,281.42
<b>Department Totals :</b>							<b>19,520.55</b>





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Vendor Code	Vendor Name					Batch	Inv Date	Inv Due Date	
Invoice No.	Description								Amount
G.L. Account	CC1	CC2	CC3	GL Account Name					
<b>DEPARTMENT 0700 Union Water System</b>									
<b>030405 COLLABRIA</b>									
BANFF AIRPOR FLIGHT - CWWA NATIONAL CONFERENCE						675	31-Oct-2019	03-Dec-2019	
70-5-0700-7050	002070			Conferences					140.23
BANFF SPRING ROOM - CWWA NATIONAL CONFERENCE						675	31-Oct-2019	03-Dec-2019	
70-5-0700-7050	002070			Conferences					1,072.29
DELTA CALGAF CWN MEETING						675	08-Nov-2019	03-Dec-2019	
70-5-0700-7052	002070			Meeting Expenses					57.56
ENTERPRISE-7 CAR RENTAL - SCADA FAT TESTING PROJECT						675	25-Oct-2019	03-Dec-2019	
70-5-0700-7052	002070			Meeting Expenses					200.15
TORONTO STA TORONTO STAR DIGITAL						675	13-Oct-2019	03-Dec-2019	
70-5-0700-7020	002070			Dues, Memberships and Subscriptions					16.94
VETS CAB-0001 TAXI - CWWA NATIONAL CONFERENCE						675	02-Nov-2019	03-Dec-2019	
70-5-0700-7050	002070			Conferences					26.60
VETS CAB-0001 TAXI - CWWA NATIONAL CONFERENCE						675	09-Nov-2019	03-Dec-2019	
70-5-0700-7050	002070			Conferences					26.52
ZEHR5 - 168001 MEETING SUPPLIES						675	15-Oct-2019	03-Dec-2019	
70-5-0700-7052	002070			Meeting Expenses					10.47
<b>050099 ENBRIDGE GAS INC</b>									
1929770208308 3555.385M3 GAS - RUTHVEN WATER TREATMENT						669	21-Nov-2019	28-Nov-2019	
70-5-0700-7410	002073			Gas					1,078.25
<b>050195 ESSEX POWERLINES CORPORATION</b>									
220651-NOV19 72KWH - METER#4						689	22-Nov-2019	12-Dec-2019	
70-5-0700-7420	002073			Electricity					-6.79
70-5-0700-7420	002073			Electricity					58.83
253800-NOV19 1KWH - METER#23						689	28-Nov-2019	12-Dec-2019	
70-5-0700-7420	002073			Electricity					-4.36
70-5-0700-7420	002073			Electricity					44.53
<b>070100 GOLDER ASSOCIATES LTD</b>									
1062562 CO2 PH ADJUSTMENT SYSTEM						689	29-Nov-2019	12-Dec-2019	
70-7-0700-8745	700200			Treatment Plant					1,712.13
<b>080250 HYDRO ONE NETWORKS INC</b>									
200141677460-1 NOV/19 HYDRO - RUTHVEN WATER TREATMENT PLANT						689	09-Dec-2019	12-Dec-2019	
70-5-0700-7420	002073			Electricity					67,645.59
200141680692-1 NOV/19 HYDRO - LOW LIFT						689	09-Dec-2019	12-Dec-2019	
70-5-0700-7420	002073			Electricity					-16.30
70-5-0700-7420	002073			Electricity					35,026.98
200141680894-1 NOV/19 HYDRO - LEAMINGTON WATER TOWER						689	29-Nov-2019	12-Dec-2019	
70-5-0700-7420	002073			Electricity					-61.03
70-5-0700-7420	002073			Electricity					569.63
200141681706-1 NOV/19 HYDRO - METER#2						689	28-Nov-2019	12-Dec-2019	
70-5-0700-7420	002073			Electricity					-4.00
70-5-0700-7420	002073			Electricity					50.26
200141682009-1 NOV/19 HYDRO - ALBUNA WATER TOWER						689	02-Dec-2019	12-Dec-2019	
70-5-0700-7420	002073			Electricity					-72.57
70-5-0700-7420	002073			Electricity					481.32
200141683019-1 NOV/19 HYDRO - METER#3						689	29-Nov-2019	12-Dec-2019	
70-5-0700-7420	002073			Electricity					-4.79
70-5-0700-7420	002073			Electricity					44.27
200141683019-1 NOV/19 HYDRO - METER#3						669	14-Nov-2019	28-Nov-2019	
70-5-0700-7420	002073			Electricity					-2.87
70-5-0700-7420	002073			Electricity					40.54



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Vendor Code	Vendor Name								
Invoice No.	Description								
G.L. Account	CC1	CC2	CC3	GL Account Name	Batch	Inv Date	Inv Due Date	Amount	
<b>DEPARTMENT 0700 Union Water System</b>									
70-5-0700-7420	002073			Electricity				-37.31	
200141683120-I NOV/19 HYDRO - METER#5					689	02-Dec-2019	12-Dec-2019		
70-5-0700-7420	002073			Electricity				-5.41	
70-5-0700-7420	002073			Electricity				47.57	
200141683423-I NOV/19 HYDRO - METER#6					689	29-Nov-2019	12-Dec-2019		
70-5-0700-7420	002073			Electricity				-4.54	
70-5-0700-7420	002073			Electricity				42.82	
200141683524-I NOV/19 HYDRO - METER#8					689	28-Nov-2019	12-Dec-2019		
70-5-0700-7420	002073			Electricity				-3.61	
70-5-0700-7420	002073			Electricity				45.49	
200141683726-I NOV/19 HYDRO - METER #15					669	25-Nov-2019	28-Nov-2019		
70-5-0700-7420	002073			Electricity				-2.97	
70-5-0700-7420	002073			Electricity				41.92	
200141687362-I NOV/19 HYDRO - METER#22					689	28-Nov-2019	12-Dec-2019		
70-5-0700-7420	002073			Electricity				-3.09	
70-5-0700-7420	002073			Electricity				39.68	
200141687766-I NOV/19 HYDRO - METER#29					689	28-Nov-2019	12-Dec-2019		
70-5-0700-7420	002073			Electricity				-3.93	
70-5-0700-7420	002073			Electricity				49.97	
200141687867-I NOV/19 HYDRO - METER#24					689	28-Nov-2019	12-Dec-2019		
70-5-0700-7420	002073			Electricity				-3.09	
70-5-0700-7420	002073			Electricity				39.67	
200141690190-I NOV/19 HYDRO - METER#26					689	26-Nov-2019	12-Dec-2019		
70-5-0700-7420	002073			Electricity				-5.43	
70-5-0700-7420	002073			Electricity				76.73	
200152134969-I NOV/19 HYDRO - METER#17					689	09-Dec-2019	12-Dec-2019		
70-5-0700-7420	002073			Electricity				-7.74	
70-5-0700-7420	002073			Electricity				45.48	
200208899066-I NOV/19 HYDRO - METER#16					669	14-Nov-2019	28-Nov-2019		
70-5-0700-7420	002073			Electricity				-5.56	
70-5-0700-7420	002073			Electricity				-7.24	
70-5-0700-7420	002073			Electricity				104.31	
200220161473-I NOV/19 HYDRO - METER#14					689	28-Nov-2019	12-Dec-2019		
70-5-0700-7420	002073			Electricity				-7.82	
70-5-0700-7420	002073			Electricity				42.52	
<b>150365 ONTARIO CLEAN WATER AGENCY</b>									
INV000117556 ENERGY MONITORING					669	30-Oct-2019	28-Nov-2019		
70-7-0700-8745 700080 Treatment Plant								48,590.00	
INV000118154 NOV/19 OPER&MTCE					689	30-Nov-2019	12-Dec-2019		
70-5-0700-6720 002071 OCWA Operating Contract								271,712.08	
<b>190185 SGS CANADA INC. ENVIRONMENTAL SERVICES</b>									
11295212 WATER QUALITY STUDIES CORROSION-UWSS					689	29-Nov-2019	12-Dec-2019		
70-5-0700-7989 002075 Operational Programs & Studies								98.31	
11295239 WATER QUALITY STUDIES CORROSION-UWSS					689	29-Nov-2019	12-Dec-2019		
70-5-0700-7989 002075 Operational Programs & Studies								237.30	
11295269 WATER QUALITY STUDIES CORROSION-LAKESHORE					689	29-Nov-2019	12-Dec-2019		
70-5-0700-7989 002075 Operational Programs & Studies								98.31	
<b>190635 STANTEC CONSULTING LTD</b>									
1441791 WTP ADMIN AREA - NOV15					689	20-Nov-2019	12-Dec-2019		
70-5-0700-7950 002050 Professional Services								3,041.24	
1442542 ENG. SERV. UNDER MSA - NOV15					689	21-Nov-2019	12-Dec-2019		
70-5-0700-7950 002050 Professional Services								7,903.31	



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Vendor Code	Vendor Name				Batch	Inv Date	Inv Due Date	Amount
Invoice No.	Description							
G.L. Account	CC1	CC2	CC3	GL Account Name				
<b>DEPARTMENT 0700</b>	Union Water System							
1443948	COTTAM RESERVOIR GRADING - NOV15				689	26-Nov-2019	12-Dec-2019	
70-7-0700-8725	700030			Cottam Booster Station				818.28
<b>190755</b>	<b>SUN LIFE ASSURANCE COMPANY OF CANADA</b>							
DEC-19	DEC/19 UNION WATER LOAN 3724:1				689	01-Dec-2019	12-Dec-2019	
70-5-0700-6000	002020	006901		Debenture Principal				35,633.55
70-5-0700-6100	002010	006901		Debenture Interest				104,304.45
<b>Department Totals :</b>								<b>581,045.63</b>