



# JOINT BOARD OF MANAGEMENT

Wednesday, January 16, 2019  
9:00 AM

Kingsville Community Room  
Kingsville Arena  
1741 Jasperson Road, Kingsville

## AGENDA

**A. Call to Order:**

**B. Election of Chair for the UWSS Joint Board of Management**

UW/01/19 - 2019 Election of the UWSS Joint Board of Management Chair and Vice  
Chair dated January 9, 2019  
Page 3 - 6

**C. Election of Vice-Chair for the UWSS Joint Board of Management**

**D. Disclosures of Pecuniary Interest:**

**E. Approval of Minutes:**

Minutes of the meeting of the Union Water Supply System Joint Board of  
Management Meeting held Wednesday, November 21, 2018  
Pages 7 - 12

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

**G. Items for Consideration:**

1. UW/02/19 dated January 11, 2019 re: Status Update of UWSS Operations &  
Maintenance Activities and Capital Works to January 11, 2019  
Pages 13 - 15
2. UW/03/19 dated January 9, 2019 re: Draft 2019 UWSS Operations & Capital  
Budget Report  
Pages 16 - 40
3. UW/04/19 dated January 11, 2019 re: CO2 pH Adjustment/Chlorine  
Improvements Project Tender Result  
Pages 41 - 46
4. UW/05/19 dated January 11, 2019 re: Payments from November 16, 2018 to  
January 11, 2019  
Pages 47 - 59

H. **New Business:**

I. **Adjournment:**

J. **Date of Next Meeting: Wednesday, February 20, 2019**, 9:00 am, Kingsville  
Community Room, 1741 Jasperson Road, Kingsville Arena

/kmj

UW/01/19

TO: CHAIR AND MEMBERS OF THE UNION WATER  
SUPPLY SYSTEM JOINT BOARD OF MANAGEMENT

FROM: RODNEY BOUCHARD, UNION WATER MANAGER

DATE: JANUARY 9, 2019

RE: PROCEDURE FOR THE ELECTION OF THE UWSS CHAIR AND VICE  
CHAIR



---

**AIM:**

To inform the Board of the procedure for the election of a Chair and Vice-Chair of the Board for a term ending on December 31, 2019.

**BACKGROUND**

The Transfer Order which established the Joint Board of Management of the Union Water Supply System sets out certain rules for the Board. The following are among the items specified in the Transfer Order regarding the Chair and Vice-Chair:

- That the Board members are appointed by the municipalities for a term of one year.
- That there is to be a Chair and Vice-Chair elected from amongst the members of the Board.
- That the Chair and Vice-Chair must be from different municipalities.
- That the Chair and Vice-Chair are elected for a term of one year.

**DISCUSSION:**

Functions of a Chair and Vice-Chair

The Chair and Vice-Chair are positions that are prescribed in the UWSS Transfer Order. The Chair is responsible for the following duties under the Transfer Order:

1. Chairing of meetings of the Joint Board of Management.
2. Calling meetings of the Joint Board of Management.
3. Executing agreements and conveyances entered into by the Joint Board of Management. The Chair co-signs with another member of the Board.

The Vice-Chair is designated under the Transfer Order to act as Chair in the absence of the Chair.

In addition to the functions that are set out in the Transfer Order, the Chair and Vice-Chair undertake the following tasks which have been determined by the Board over the 10 years of its existence.

1. The Chair and Vice-Chair have signing authority on the UWSS bank accounts along with the UWSS Manager and the Leamington Director of Finance. Account transfers require two signatures, one of the Chair or Vice-Chair and one of the Manager or the Finance Director.
2. The Chair and Vice-Chair meet once a month with the Manager to review the proposed agenda for the next Board meeting.
3. The Chair and Vice-Chair conduct an annual performance appraisal of the Manager.

Under the Transfer Order the Chair and Vice-Chair are elected for a one (1) year term and must be from different municipalities. These requirements are intended to ensure that the Board acts in the overall system's interest and in the interest of all of the municipal owners. In some of the other Joint Boards of Management set up under the same legislation, the position of Chair is required to rotate annually or biannually among the municipal owners.

This memorandum is intended to allow the Board members to prepare for the election. Any questions regarding the procedure should be given to the Manager before the meeting if possible.

#### Election Procedure

The established procedure for the election of the Chair and Vice-Chair of the Joint Board of Management should be as follows:

The Manager will chair the meeting until the election of the new Chair.

The Manager will call the meeting to order.

The first order of business is the election of the Chair.

The Transfer Order under section 1 (g) says that the Chair and Vice-Chair may not be from the same municipality. This means that the election of the Chair must be completed before the Board can determine which members are eligible to be elected as Vice-Chair.

The Manager will ask for nominations from the Board for the position of Chair. Nominees must have a proposer and a seconder (neither of which can be the nominee) and the

nominee will be asked if they are willing to accept the nomination. The list of candidates will be made up of those nominees who accept their nomination.

If there is only one (1) successful nomination, that candidate will be acclaimed as Chair.

If there are two (2) or more nominations, there will be an election. The Manager will state the names of the nominees in alphabetical order by surname. After each name is announced there will be a show of hands by those wishing to vote for that candidate. Board members shall only vote for one candidate. Candidates can vote for themselves.

The Administrative Assistant will record the number of votes for each candidate. The nominee with the most votes will be declared to be the Chair for the year to December 31, 2019.

If there is a tie for the most votes cast, the name of each nominee who is tied will be written on a slip of paper by the Manager and the slips will be placed in a hat or box. The Administrative Assistant will draw one slip and the name on that slip will be declared as the new Chair.

The Manager will ask for a motion confirming the appointment of the successful candidate as Chair.

The new Chair will then take charge of the meeting.

The Chair will then proceed with the election of the Vice-Chair. If the Chair is from a municipality with more than one member on the Board, no Board member from that municipality is eligible to serve as Vice-Chair.

The Chair will ask for nominations from the Board for the post of Vice-Chair. Again, nominees must have a proposer and a seconder and the nominee will be asked if they are willing to accept the nomination. The list of candidates will be made up of those nominees who accept their nomination.

If there is only one (1) nomination, that candidate will be acclaimed as Vice-Chair.

If there are two (2) or more nominations, there will be an election by show of hands. The Chair will say the names of the nominees in alphabetical order by surname. After each name is announced there will be a show of hands by those wishing to cast a vote for that candidate. Board members shall only vote for one candidate. Candidates are allowed to vote for themselves.

The Administrative Assistant will record the number of votes for each candidate. The candidate with the most votes will be declared to be the new Vice-Chair.

If there is a tie for the most votes cast, the name of each candidate who is tied will be written on a slip of paper by the Manager and the slips will be placed in a hat. The

Administrative Assistant will draw one slip and the name on that slip will be declared as the new Vice-Chair.

The Chair will ask for a motion confirming the appointment of the successful candidate as Vice-Chair.

Immediately after the election of the Vice-Chair, the meeting will proceed with the rest of the business on the Agenda.

Respectfully submitted,



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

Filename: T:\Union Wtr\Reports to Board\2019\UW01- 19 Election for 2019 Chair Vice Chair.docx



# JOINT BOARD OF MANAGEMENT

Wednesday, November 21, 2018

9:00 AM

Kingsville Community Room

Kingsville Arena

1741 Jasperson Road, Kingsville

## MINUTES

**Members Present:** Deputy Mayor MacDonald (Chair); Mayor Paterson, Councillors Hammond, Jacobs, Verbeke - Leamington  
Mayor Nelson Santos (Vice-Chair); Deputy Mayor Queen,  
Councillors Gaffan, Neufeld, Patterson - Kingsville  
Mayor McDermott - Essex

**Members Absent:** Councillor Dunn - Leamington  
Councillor Diemer - Lakeshore

**Staff Present:** Andy Graf - Essex  
Andrew Plancke - Kingsville  
Shannon Belleau - Leamington

**OCWA Staff Present:** Robin Kind, Terry Bender, Susan Budden, Dave Jubenville  
Dale Dillen, Ken Penney

**Call to Order:** 9:01 am

**Disclosures of Pecuniary Interest:** none

**Adoption of Council Minutes:**

**No. UW-47-18**

**Moved by:** Councillor Verbeke

**Seconded by:** Councillor Gaffan

That Minutes of the UWSS Joint Board of Management meeting of September 27, 2018 be received.

Carried

**Business Arising Out of the Minutes:**

There was none.

**Report UW/24/18 dated November 16, 2018 re: Status Update of the UWSS Operations & Maintenance Activities and Capital Works to November 16, 2018**

The Manager notes that there has been a two (2) month window since the last meeting and therefore a lot of projects have been moving along since that time.

An arc flash occurred on August 28<sup>th</sup> in the electrical MCC for the Low Lift pump #3. Inspection of the pump noted that most of the components require repairs. Phasor Electric has been hired to develop a repair plan. OCWA staff is hoping to have back in service by early December.

The Manager informs the board that the operations staff have switched back to DelPAC coagulant as the colder weather has arrived and this type works better with cold water. The switch took place on October 21<sup>st</sup>.

The Manager reminds members of the board about the leak in Meter Chamber #2 on Road 2 and Union Avenue. Upon further inspection the leak was occurring at a service connection and air relief valve. The work was lead by the Town of Kingsville and all repairs have been made. The Manager expressed his appreciation to the town staff for taking the lead on this repair.

The residual pile, located on the WTP property, has been reduced this year further by DiMenna Excavating. DiMenna was able to remove almost 2000 tons, which was then taken to the EWSWA landfill, to be used as day cover. This project came in well under budget. The Manager anticipates that within the next two (2) years most of the pile will have been removed. He feels that the MOE Inspector will be pleased as this item was flagged each year during inspection.

Low Lift pump #2 soft start failed and required a new soft start. This work was completed November 9<sup>th</sup>. Cathodic inspections recently took place on the water towers.

Continental Carbon Group (CCG) has been retained to complete the filter media replacement for filters #6 and #8. Once this work has been completed all eight (8) filters will have fresh media. The media replacement is scheduled to be completed prior to the end of 2018.

Stantec Consulting has been retained to assist with project management for the Cottam Booster Station (CBS) reservoir soil cover regrading. The budget for this project was approved in the summer of 2018. Various tenders came back with some high and the low bid was Rudak Excavating Inc., of South Woodslee, for \$37,653. This work is scheduled to be completed prior to the end of 2018. There was a brief discussion at this point over the large gap between the high and low tenders received. The Manager noted that Stantec was very confident with the company chosen and the Manager is putting his faith in this information. He further notes that the budget is \$100,000 so if there are any slight changes to be made the funds are there to cover it, however, he doesn't anticipate anything major.

The Manager notes that as part of the ongoing Drinking Water Quality Management System (DWQMS) that UWSS and OCWA staff have attended the management review meeting. There were no outstanding action items to be addressed. As part of the management review the manager notes there was a discussion regarding the number of complaints received this year about water taste and odour. July and August complaints were consisting of complaints of “dirt” tasting water. The Manager explains that the summer was very hot, dry and stagnant, which translated to the water. Since the end of October complaints have consisted of high chlorine smell/taste. The Manager further explains that several things have been occurring at the same time. The switch to winter coagulant, lake inversion, reduced flows and reduction of carbon (taste control additive). Therefore, all of these items could factor in the taste/odour complaints. He feels that once the changes make their way through the system the complaints should subside. He also notes that this is why the UWSS is doing a full year of free chlorine to analyze whether free chlorine is best for the entire system. He further notes extra sampling is occurring and a map of all complaints has been generated, however, there are no clusters of complaints that are of concern. All testing has come back within standards.

The Manager updates members on the CO<sub>2</sub> pH Adjustment project. He explains that following this meeting there is a mandatory pre-bid meeting taking place at the WTP. Tender closes December 7<sup>th</sup>.

Councillor Jacobs left at 9:13 and returns at 9:14.

The SCADA consultant has completed all drawings and it is anticipated that a workshop will take place December 11<sup>th</sup> to review the proposed design and then tendering should take place in January, with construction anticipated to commence in March of 2019.

The Manager reminds members that the updated Financial Plan should be completed by Watson & Associates in December. This is necessary so that UWSS/OCWA can apply for a new Municipal Drinking Water Licence (MDWL), which is due mid-January. The Manager states that UWSS and OCWA will be working together to complete this task.

The Manager explains that flows are up this year, which has helped the budget. More information on the budget will be coming during the January meeting and the following report.

The Board then asks the Manager for further explanation regarding the number of complaints that have been received. They ask what the turn around time is for answering a customer complaint. The Administrative Assistant explains that the call is normally dealt with in a matter of hours, depending on the time of day received. She indicated that normally the complaint is handed over to OCWA staff for either same day follow up call or follow up in home testing. She did note that depending on the testing completed lab results can take a few days or up to two (2) weeks for results and then the customer is notified.

The Board asks for confirmation that testing is occurring at the far reaching areas of the system. The Manager confirms that this is true.

The Board also asks about the Low Lift down time during the recent power outage. The Manager confirms that there is an on site generator and if need be a portable generator that can be brought down.

There is a brief discussion regarding boil water advisories (BWA) of the past. The Manager explains that testing procedures have changed and now often if there is a poor sample the WECHU calls for re-sampling rather than a BWA.

**No. UW-48-18**

Moved by: Councillor Jacobs

Seconded by: Mayor McDermott

That report UW/24/18 dated November 16, 2018 re: Status Update of the UWSS Operations & Maintenance Activities and Capital Works to November 16, 2018 is received.

Carried (UW/24/18))

**Report UW/25/18 dated November 16, 2018 re: Update on Operations & Capital Budgets**

The Manager explains that this is the last meeting with the current board members and he wants to provide them with a budget update, prior to their departure. He notes that 3.4 billion gallons of water had been sold this year, which translates to almost 200 million gallons over the budget. He explains that this number could be less as flows tend to be lower in December. This increase in flow has translated into approximately \$300,000 increase in revenue.

He asks members to look at page 12 of the agenda package to look at studies and capital works. He explains that some items that were previous under “studies” have been moved to operations side.

He also explains that the budget set aside for the Operations & Maintenance (OM) contract has not been used, but he is meeting with Senior OCWA staff this afternoon and the following day to discuss the new contract.

Some of the anticipated projects for 2018 have started later in the year and will therefore carry over into 2019. He does confirm that the Essex Water Tower (EWT) came in slightly under budget and then reviews some projects that will be moved over to 2019. By moving the projects forward not as much money needs to be taken from the Reserves. He explains that UWSS is financially in good shape. The rate stabilization reserve is working well for UWSS and there is \$17.5 million in the bank accounts at the moment.

The Board is concerned that these projects are not getting completed during the current year and some of the projects coming up in 2019 are fairly labour intensive and will prices go up by moving the projects to 2019 and beyond. The Manager explains that he does not anticipate dramatically rising prices. He also indicates that these large projects tend to incur delays due to design and tendering related issues. He also feels that the projects will be using good engineering firms and contractors and labour won't be an issue.

**No. UW-49-18**

Moved by: Councillor Patterson

Seconded by: Councillor Neufeld

That report UW25/18 dated November 16, 2018 re: Update on Operations and Capital Budgets is received.

Carried (UW25/18)

**Verbal update on Operations & Maintenance Contract**

The Manager reminds members of the Board that he has been working with OCWA senior staff to create a new Operations & Maintenance (OM) agreement. He confirms that he has participated in a number of meetings and discussions and feels that UWSS and OCWA are almost where they want to be in order to complete the contract. He then invites Susan Budden, OCWA Account Manager, to speak to members of the UWSS Board.

Ms. Budden reviews what is working well for UWSS/OCWA relationship and notes that any staff concerns have been taken into consideration for the new OM Contract. She explains to the Board that there is potential for new staff and the increase of compliance and staff succession at the WTP. She also notes that there is potential for team leaders as well as specialized positions coming forward.

She confirms that OCWA staff will be meeting with the Manager the following day to firm up some of the lingering details of the possible new contract.

The Board is concerned about the new positions that are possibly being suggested. The Manager reminds members that this contract will be a fixed fee contract for 10 years, which provides stability on both sides.

**No. UW-50-18**

Moved by: Deputy Mayor Queen

Seconded by: Councillor Jacobs

That the verbal update on the Operations & Maintenance Contract is received.

Carried

**Report UW/26/18 dated November 16, 2018 re: Payments from September 21 to November 16, 2018**

**No. UW-51-18**

Moved by: Mayor Santos

Seconded by: Councillor Hammond

That report UW/26/18 dated November 16, 2018 re: Payments from September 21 to November 16, 2018 is received.

Carried (UW/26/18)

**New Business:**

The Manager introduces the guests in the audience. OCWA senior staff Robin Kind, Executive Vice President, and Terry Bender, VP of Operations, to members of the Board. OCWA wanted to thank the UWSS for allowing OCWA to be part of UWSS for the last 25 years. They presented the Manager with a plaque commemorating the occasion.

The Manager then thanks the members of the Board for the last four (4) years of working together with him to continue to make UWSS run smoothly. He thanks the departing members for all of their service and input and appreciates everything they have contributed.

The Board then asks the Manager if there is a trend in watermain breaks and would like an evaluation brought back to the board to provide further information. The Manager notes that 12" watermain to Cottam Booster Station is a concern, but is part of the six (6) year capital plan. He also feels that County Road 20 (Seacliff Drive) should also be looked at.

**Adjournment:**

Moved by: Deputy Mayor Queen

Seconded by: Councillor Jacobs

That the meeting adjourn at 9:46 am

Carried

**Date of Next Meeting:** January 16, 2019, 9 am, Kingsville Community Room of the Kingsville Arena

/kmj

UW/02/19

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

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

**Date:** January 11, 2019

**Re:** Status Update of UWSS Operations & Maintenance Activities and Capital Works to January 11, 2019



---

**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. Continental Carbon Group (CCG) was retained to supply and install new sand and anthracite filter media for Filters #6 and #8. CCG also removed and disposed of existing filter media. This work was completed the week of December 3<sup>rd</sup>, 2018. These filters have since been disinfected and returned to service. All other filters are being shut down individually for their annual maintenance.
3. Cottam Booster Reservoir soil cover rehabilitation project has been delayed due to abnormally warm and wet weather in December 2018 which resulted in the ground being too wet and soft to work on. The contractor, Rudak Excavating, will resume work once weather and ground conditions are satisfactory.
4. Watson & Associates have completed a draft Water Rate Study for UWSS. The preliminary results were presented to UWSS at a meeting on December 5, 2018. Watson and Associates are finalizing the Water Rate Study report, which will be presented to the UWSS Board at the February 2019 or March 2019 UWSS Board meeting. Watson & Associates is currently updating the Ontario Regulation 451 Financial Plan for UWSS using the Water Rate Study information. It is anticipated that a draft Financial Plan Report will be provided to UWSS by January 14, 2019 for review and a Final Financial Plan Report will be provided in time for submittal as part of the UWSS' Municipal Drinking Water License (MDWL) renewal application that is due for submittal to the Ministry of Environment, Conservation and Parks (MOECP) on January 19<sup>th</sup>, 2019.

5. An MOECP annual inspection for the UWSS was started on January 8<sup>th</sup>, 2019. It is anticipated that the inspection and associated report will be completed the first week of February 2019.
6. ASL Rotech was retained to inspect and refurbish Low Lift pump #1. ASL Rotech was on site on December 4<sup>th</sup> and 5<sup>th</sup>, 2018 to remove the pump and bring it to their shop for refurbishment. This pump is scheduled to be reinstalled and returned to service by the end of January 2019.
7. UWSS purchased four new drain valves for Filters #2 and #7. These valves were installed by OCWA maintenance staff.
8. A vibration has been detected in High Lift pump #4 has a vibration. Nevro Pumps and Mechanical of London, Ontario has retained to investigate the issue.
9. A new clamp-on flow meter for Clarifier #2 raw water line has been purchased, installed and tested to replace some older pressure differential flow meters on the raw water lines in preparation for the new CO2 system. Two more flow meter will be purchased for raw water lines for Clarifiers #1 and #3.
10. A new pH probe has been installed at the low lift station to monitor the pH of the raw water at intake #1. Another one will be installed on intake #2. These will be tied into the SCADA system by OCWA electrical staff.
11. SCADA Upgrade Project Update: A workshop was held on December 3<sup>rd</sup>, 2018 with UWSS and OCWA operations staff to present and review the Program Control Narratives (PCNs) and other completion of PLC design is ongoing. The PCNs for all processes are currently being completed based on the feedback and results from the workshop. Quotes for construction of the physical aspects of the new SCADA system will be requested in February once the design components are complete. The new Wonderware System Platform software and Reporting components have been purchased and received.
12. CO2 pH Adjustment/ Chlorine System Improvements Project Update: - The project consultant engineer, Associated Engineering, issued a tender on November 12, 2018 for construction services for the CO2 pH adjustment system and Chlorine System Improvements project. The results of the tendering process and recommendation are provided in report UW04-19 CO2 pH Adjustment/ Chlorine System Improvements Project Tender Result

Comparative Flows for 2015 through 2019 in Millions of Imperial Gallons (for the period 1 January to January 10, 2019)

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Flow to Date (MG)	53.40	51.28	58.84	62.66	61.74
Max Day (MGD)	6.67	6.17	6.59	7.69	7.09
Min Day (MGD)	3.79	4.29	4.56	5.18	4.43
Average Day (MGD)	5.34	5.13	5.88	6.27	6.17
No of Days	10	10	10	10	10

Flows to date are down 0.92 MIG or 1.47% from last year. The 2019 flows to date are up 9.19% 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

Filename: T:\Union Wtr\Reports to Board\2019\UW02-19 Operations report for January 2019.docx

UW/03/18

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

FROM: Rodney Bouchard, Union Water Manager

DATE: January 9<sup>th</sup>, 2019

RE: Draft 2019 UWSS Operations and Capital Budget Report



### FOR INFORMATION

Since this is the first meeting of the newly appointed UWSS Board, this Draft 2019 UWSS Operations and Capital Budget Report is being provided to the UWSS Board for review purposes. At this time, the UWSS General Manager anticipates seeking approval of the draft 2019 UWSS Budget at the next regular meeting of the UWSS Board on February 20<sup>th</sup>, 2019.

#### **REPORT HIGHLIGHTS**

- Potable water demand from UWSS is anticipated to be approximately 3,430,000,000 imperial gallons (15,591,000 m<sup>3</sup>) for 2019. This is roughly based on the average annual demand for the previous 3 years.
- UWSS Revenue for 2019 is estimated at \$10,144,000. This includes estimated wholesale rate revenue of \$9,673,000, investment income of \$450,000 and sundry revenue of \$21,000.
- Operational and Debt Service Expenditures for 2019 are estimated at \$7,979,000. This includes \$5,647,000 for Operational Expenses and \$2,332,000 for Debt Service.
- 2019 Revenue versus Operational and Debt Service Expenditures are anticipated to result in a surplus of approximately \$2,165,000 for 2019 Fiscal Year;
- A Capital Program of \$5,735,000 is proposed for 2019. This includes a large expenditure for SCADA system upgrades (\$1,035,000), which is a previously approved project that is ongoing. The capital budget also includes a revised budget of \$3,100,000 for construction and implementation of a CO<sub>2</sub> gas based raw water pH adjustment system, installation of a chlorine gas scrubber, expansion of the chlorine storage building, and modification of the chlorine gas delivery system.
- The proposed Capital Program for 2019 will result in a budgeted net deficit of **\$3,570,000** for 2019 fiscal year. The deficit will be funded using UWSS Reserves.
- An increase of \$0.05 per 1000 gallons (\$0.0109/m<sup>3</sup>) is proposed for the UWSS Wholesale Rate. The new proposed Rate 1 wholesale Rate would be \$2.82 per 1000 gallons (\$0.611/m<sup>3</sup>) to take effect on April 1, 2019.

**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 2018.

This proposed budget is being presented to the UWSS board for consideration. The proposed 2019 budget is outlined to provide details in regards to the following:

- Anticipated revenue for 2019 from wholesale of water to the partner municipalities;
- Anticipated operating expenditures for 2019 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 2019 for UWSS;
- Forecasted Operational Expenditures and Capital Works program for 2019-2024.

**DISCUSSION:**

The Proposed 2019 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 Fixed Fee Operations Agreement between UWSS and OCWA that came into effect on January 1, 2014 and was to end on December 31<sup>st</sup>, 2018. This agreement has been extended to December 31<sup>st</sup>, 2019 to allow further time for UWSS and OCWA to negotiate a new long-term operations agreement;
- The large proposed capital budget for 2019 that includes projects with large expenditures such as the construction and implementation of a carbon dioxide gas (CO<sub>2</sub>) based raw water pH adjustment system, installation of a chlorine gas scrubber for emergency purposes, expansion of the chlorine building, and upgrades to the chlorine gas delivery system. Other large projects include ongoing SCADA system replacement, Low Lift main electrical upgrades, and proposed installation of new high lift pump.

Details regarding the budget components are discussed below.

**OPERATING EXPENDITURES**

Expenditures for the Union Water Supply System (UWSS) consist of a) *Fixed Expenditures*, which includes the OCWA operations contract, UWSS Administration and debt service; and b) *Programs and Studies* that are proposed for 2019. The total projected expenditures for 2019 is budgeted at approximately at \$7,452,000.

**Fixed Expenditures**

Fixed expenditures for the budget process include the OCWA Operations Budget, UWSS Administrative Budget, Electricity and Heating costs, Carbon Dioxide (for proposed raw water pH adjustment system, Operations/Maintenance/Upgrades-General (which includes residuals maintenance, watermain repairs & facility enhancements) and Debt Service. The total estimated fixed expenditures budget for 2019 is \$7,839,441. The fixed expenditures consist of the following components:

OCWA Operations Budget:	\$3,265,000
UWSS Administrative Budget:	\$ 547,000
Electricity and Natural Gas:	\$1,250,000
CO2 Liquefied Gas Procurement:	\$ 175,000
Operational/Maintenance/Upgrades-General:	<u>\$ 270,000</u>
<i>Total Operations, Administrative, Energy:</i>	<i>\$5,507,000</i>
Debt Service:	
Sunlife Debt (MFP Debt):	\$2,332,441
Woodslee Credit Union Loan:	\$0
OSIFA (municipal debentures):	\$0
Leamington Debt Repayment:	<u>\$0</u>
<i>Total Debt Service:</i>	<i>\$2,332,441</i>
<b>Total Fixed Costs:</b>	<b>\$7,839,441</b>

It should be noted that CO2 Liquefied Gas Procurement is a new Fixed Expenditure Category that is being added to the 2019 UWSS Budget. This item relates to the purchase and use of CO2 Liquefied gas for the operation of the CO2 Raw Water pH adjustment system that is to be constructed and put into operation in 2019. The proposed CO2 Liquefied gas procurement budget amount of \$175,000 is based on the design capacity of the CO2 Raw Water pH Adjustment system, the anticipated raw water flow for 2019 and the CO2 price agreement with the CO2 liquefied gas supplier.

It should also be noted that UWSS Administration Budget includes an increase in 2019 to accommodate the reclassification of the UWSS Administrative Assistant position to UWSS Office Coordinator position.

### Programs and Studies

A number of Programs and Studies are included in the 2019 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 for potential issues such as toxic algae in raw water, nitrification and/or corrosion related issues in larger distribution systems, etc.

For the 2019 budget year, \$140,000 has been allocated to Programs and Studies. The following studies are proposed or currently in place:

Water Demand/Usage/Quality Initiatives: This work is being conducted with assistance from various partners (OCWA, Canadian Water Network, Universities, and Consultants, local municipalities) to evaluate water demand/usage from residential, commercial, industrial and agri-food sectors, to assess water loss throughout the extended distribution system and to evaluate water quality issues such as nitrification, corrosion, and algal toxins.

A budget of \$60,000 is being proposed in the 2019 UWSS Budget for this work.

New Ruthven WTP Reservoir #3 Study For the 2019 Budget year, a study is being proposed to evaluate the need for increased reservoir capacity at the Ruthven Water Treatment Plant. Existing reservoir capacity at the Ruthven WTP is 5 million gallons, which is thought to be insufficient especially during high water demand days that can reach over 18 million gallons per day.

A budget of \$40,000 is being proposed in the 2019 UWSS Budget for this work.

Backup Power Generation/ Energy Study: A study is being proposed to evaluate the existing backup power generation capacity and equipment at the UWSS facilities. Available backup power generating capacity varies at each of the UWSS facilities (i.e. low lift, water treatment plant, Cottam Booster, etc.) and is likely not optimal. Further, existing diesel backup power generators are old and may require upgrades. This study would also look at solar energy power options for UWSS.

A budget of \$40,000 is proposed in the 2019 budget to complete this work.

### Operating Expenditure Summary

Fixed Expenditures:	\$7,839,441
Programs and Studies:	<u>\$ 140,000</u>
<b>Total Operating Expenditures for 2017:</b>	<b>\$7,979,441</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 smaller component of revenue is based on miscellaneous revenue such as investment income and sundry income. The total estimated revenue for 2019 is \$10,143,600

### 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 2019 is 3,430,000,000 imperial gallons (15,591,000 m<sup>3</sup>) of potable water. This usage estimate is based on the average water demand for the 3 previous years.

Figure 1 depicts the total UWSS water usage trend from 1998-2018.

Figure 1

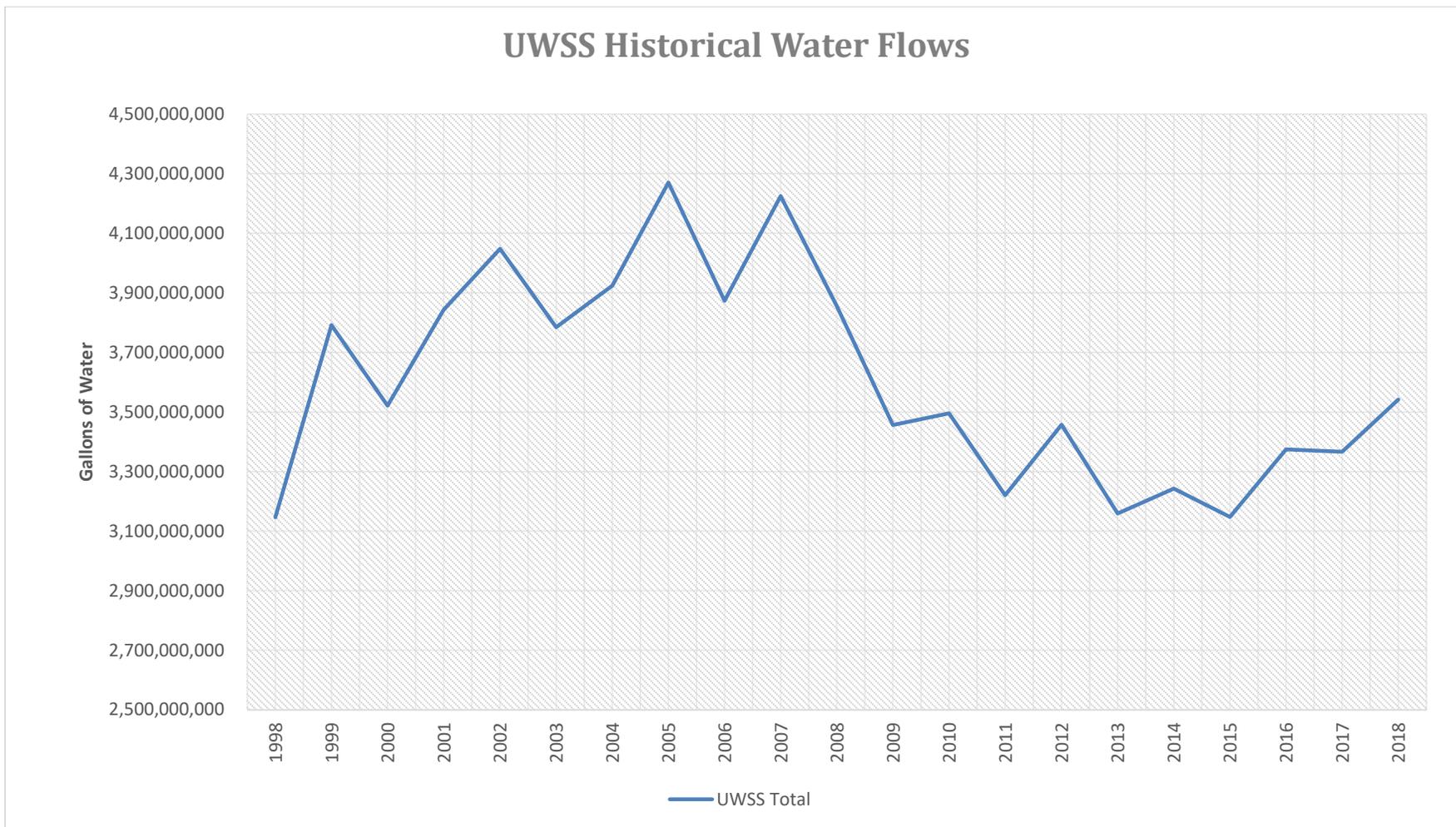
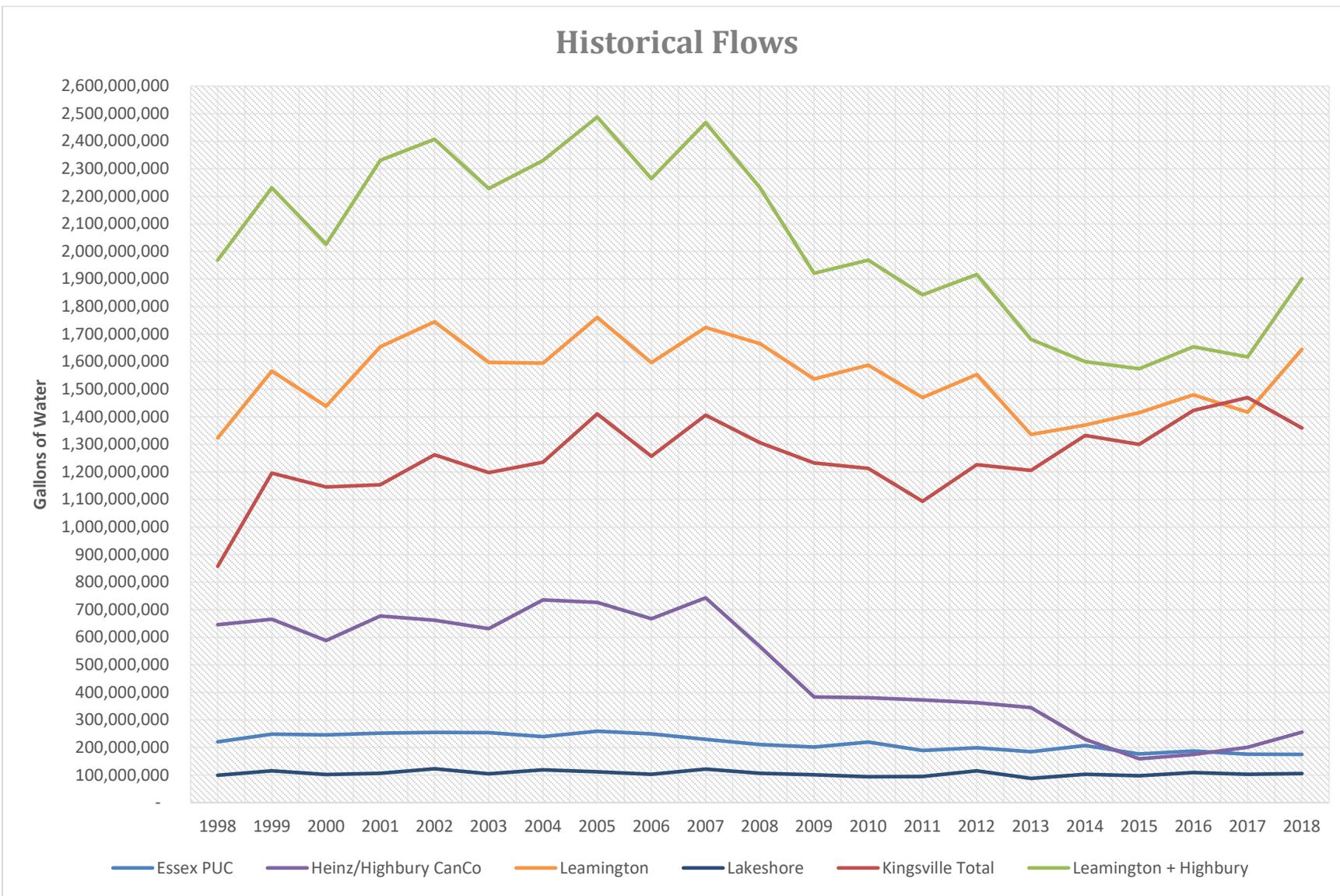


Figure 2 depicts the water usage trend by each municipal partner from 1998-2018.

Figure 2



Wholesale Water Rates

For the 2019 budgeting process, it is proposed that an increase of \$0.05 per 1000 gallon (\$0.0109/m<sup>3</sup>) be applied to the UWSS wholesale rate. This would result in a 2019 UWSS wholesale rate of \$2.82 per 1000 gallons (\$0.6211/m<sup>3</sup>). It is proposed that the increase for these rates be applied at the start of the 2<sup>nd</sup> quarter 20189, thus on April 1, 2019.

Based on a projected water demand of 3.43 billion Imperial Gallons of potable water in 2019, the anticipated wholesale water rate revenue for 2019 is **\$9,672,600**

Miscellaneous Revenue

Miscellaneous revenue includes income from investments and sundry income.

Investment (interest) income:	\$ 450,000
Sundry revenue:	<u>\$ 21,000</u>
<b>Total Misc. Revenue:</b>	<b>\$ 471,000</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 2019 is \$21,000 and is roughly based on 2018 revenue.

Revenue Summary

Wholesale Rate Revenue:	\$9,672,600
Miscellaneous Revenue:	<u>\$ 471,000</u>
<b>Total Estimated Revenue for 2019:</b>	<b>\$10,143,600</b>

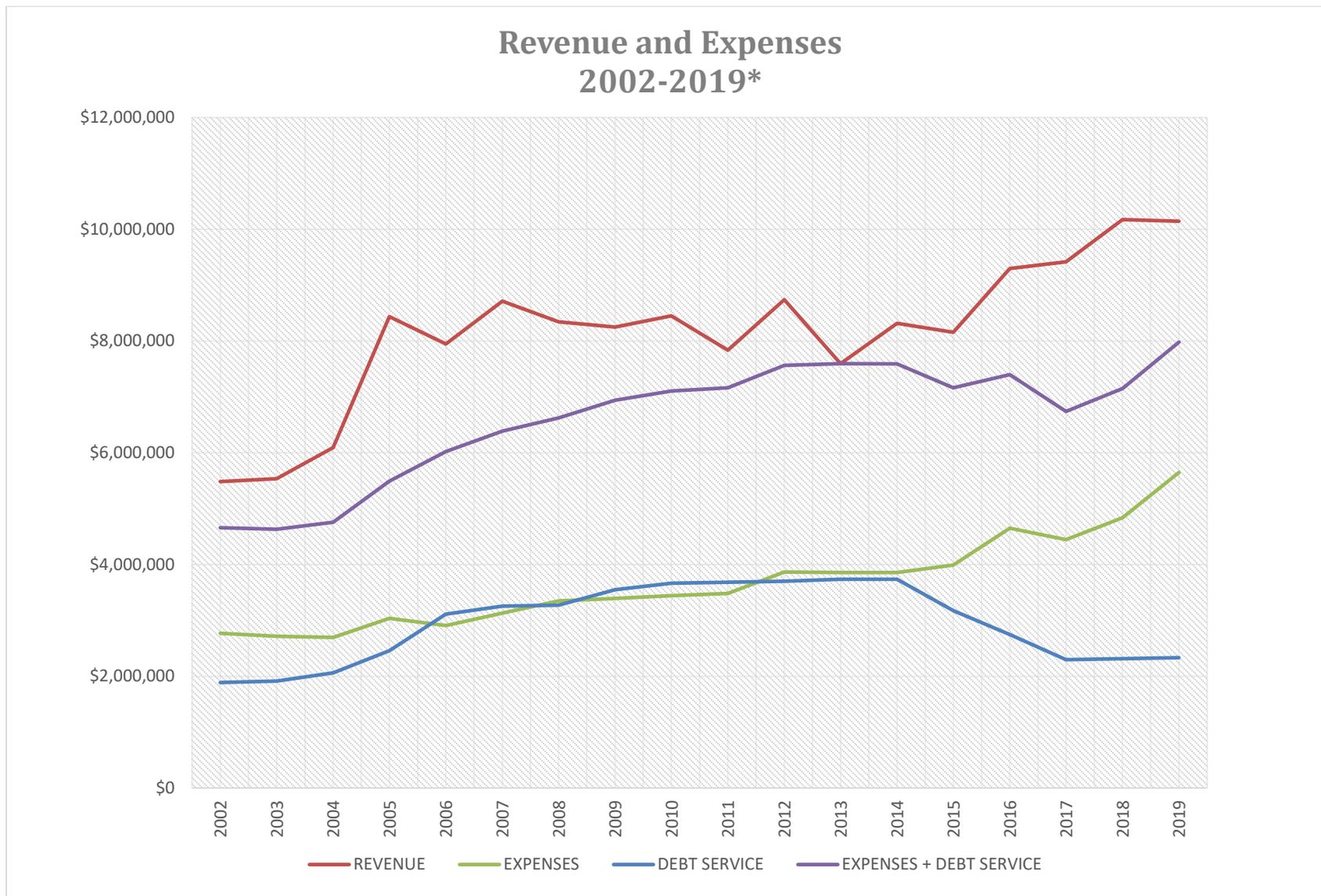
REVENUE VERSUS OPERATING EXPENDITURES

A comparison of Revenue versus Expenditures for 2019 budget is as follows. It should be noted that the total estimated expenditures also include the proposed budget for operational Programs and Studies of \$140,000.

Total Estimated Revenue:	\$10,143,600
Total Estimated Expenditures:	<u>\$7,979,441</u>
<b>Surplus/(Deficit):</b>	<b>\$2,164,159</b>

Table 3 provides a historical comparison of UWSS Revenue versus expenses from 2002-2018

Figure 3



**CAPITAL PROGRAM**

The proposed Capital Program for 2019 is budgeted at \$5,735,000. This includes major Capital Equipment Purchases (e.g. vehicles, heavy equipment) and major Capital Works.

The following major capital works projects are proposed for 2019:

CO2 Raw Water pH Adjustment System:	\$1,550,000
Chlorine Gas System Improvements/New Scrubber:	\$1,550,000
SCADA System Replacement (continued from 2018):	\$1,035,000
High Lift Pump No. 10 - New:	\$ 250,000
Low Lift Main Electrical System Upgrades:	\$ 200,000
DAF System Design - Clarifier #2 :	\$ 150,000
Laboratory Upgrades:	\$ 100,000
Upside Down Valve Corrosion Protection:	\$ 100,000
Distribution System Components:	\$ 75,000
Cottam Booster Reservoir Regrading:	\$ 60,000
Security System Install:	\$ 60,000
Master Water Meter Communication System:	\$ 50,000
Power Factor Capacitor Upgrades:	\$ 50,000
Carbon Scrubber System Upgrade:	\$ 50,000
Grounds Improvements	\$ 50,000
Low Lift Surge Tanks - Ladders & New Compressors:	\$ 40,000
Low Lift #5 Pump Rehab	\$ 35,000
Energy Monitoring and Management System - WTP	\$ 35,000
Filter Meter Replacements -Filters 5,6,7,8	\$ 35,000
Blue Green Algae Probe - Low Lift Well	\$ 30,000
Carbon Feed Pump Upgrade	\$ 30,000
Filters #2 & #4 Inlet Gate Replacement	\$ 30,000
Rechlorination System Upgrades - Cottam Booster:	\$ 30,000
Treatment Plant Building-Admin Area Improvements:	\$ 30,000
Flow Meters & Control Valves - Clarifiers #1 & #3:	\$ 25,000
Chlorine Analyzers - 5 new units:	\$ 25,000
UWSS Communication System Upgrades:	\$ 20,000

Carbon Recirculation Pump Rehab:	\$ 10,000
New Turbidity Meters -Clarifiers #3 & #4:	\$ 10,000
Wastewater Pumps Rehabilitation	\$ 10,000
Lighting Upgrades - Exterior:	<u>\$ 10,000</u>
<b>Total Capital Works for 2019:</b>	<b>\$5,735,000</b>

### **BUDGET SUMMARY**

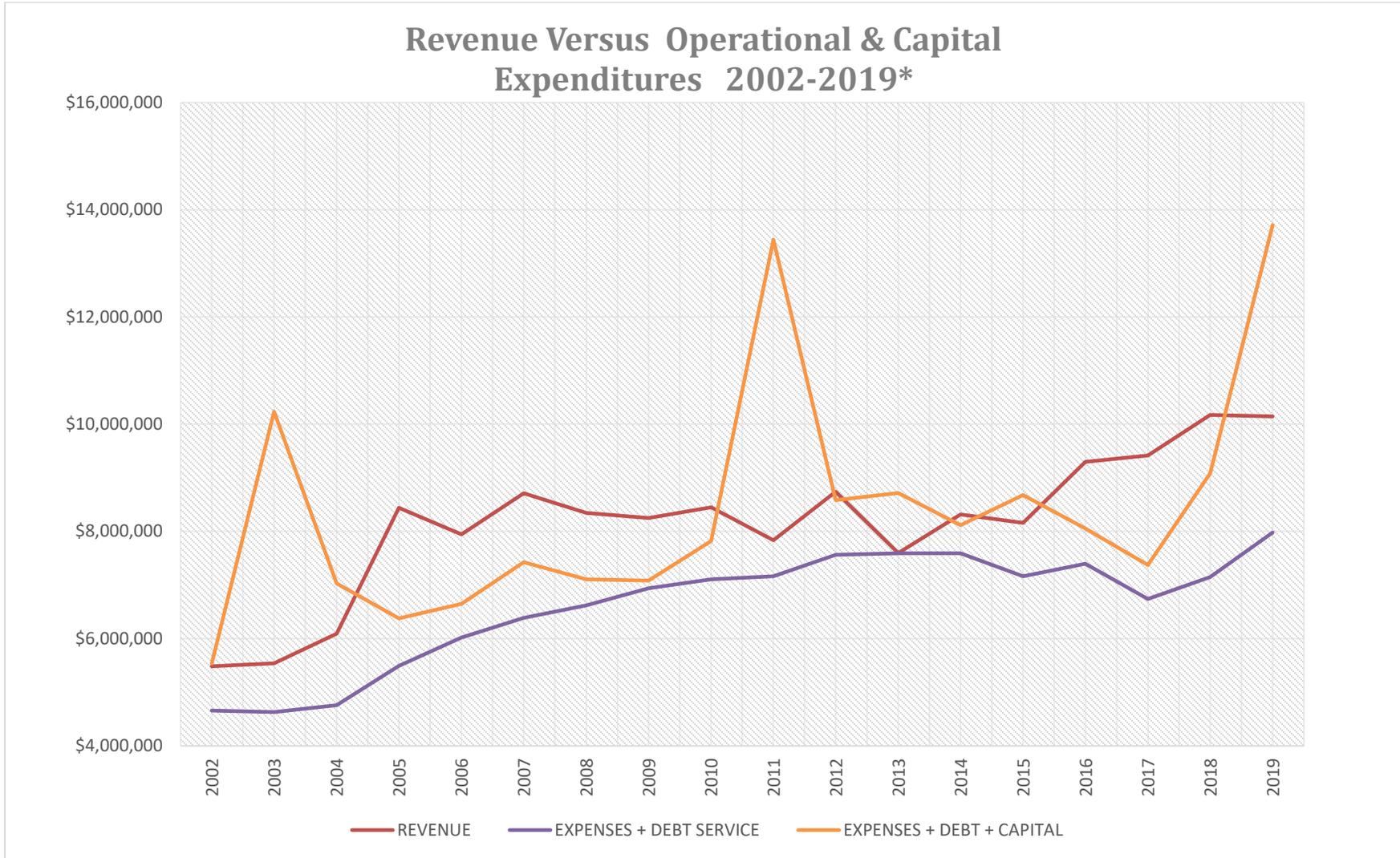
The proposed 2019 budget is summarized as follows:

<b>Total Estimated Revenue:</b> (includes wholesale rate revenue and miscellaneous revenue)	\$10,143,600
<b>Total Estimated Operating Expenditures:</b> (includes Operations Contract, UWSS Admin, Programs & Studies)	<u>(\$7,979,441)</u>
<b>Revenue versus Operating Expenditures:</b> Surplus/ (Deficit)	<b>\$2,164,159</b>
<b>Capital Program:</b> (includes Capital Purchases and Capital Works)	<u>(\$5,735,000)</u>
<b>NET SURPLUS/ (DEFICIT):</b> (Operating surplus/deficit less Capital Program)	<b>(\$3,570,841)</b>

Figure 4 below provides a chart that compares historical UWSS Revenue versus Operating and Capital Expenditures.

Appendix A to this report includes worksheets and tables that provide details on the 2018 Operations and Capital Budgets including a Budget Summary worksheet, Operations and Debt Detail worksheet, 2018 Capital Budget Details worksheet, and a Water Flow and Revenue worksheet.

Figure 4



### CASH /RESERVES VERSUS DEBT

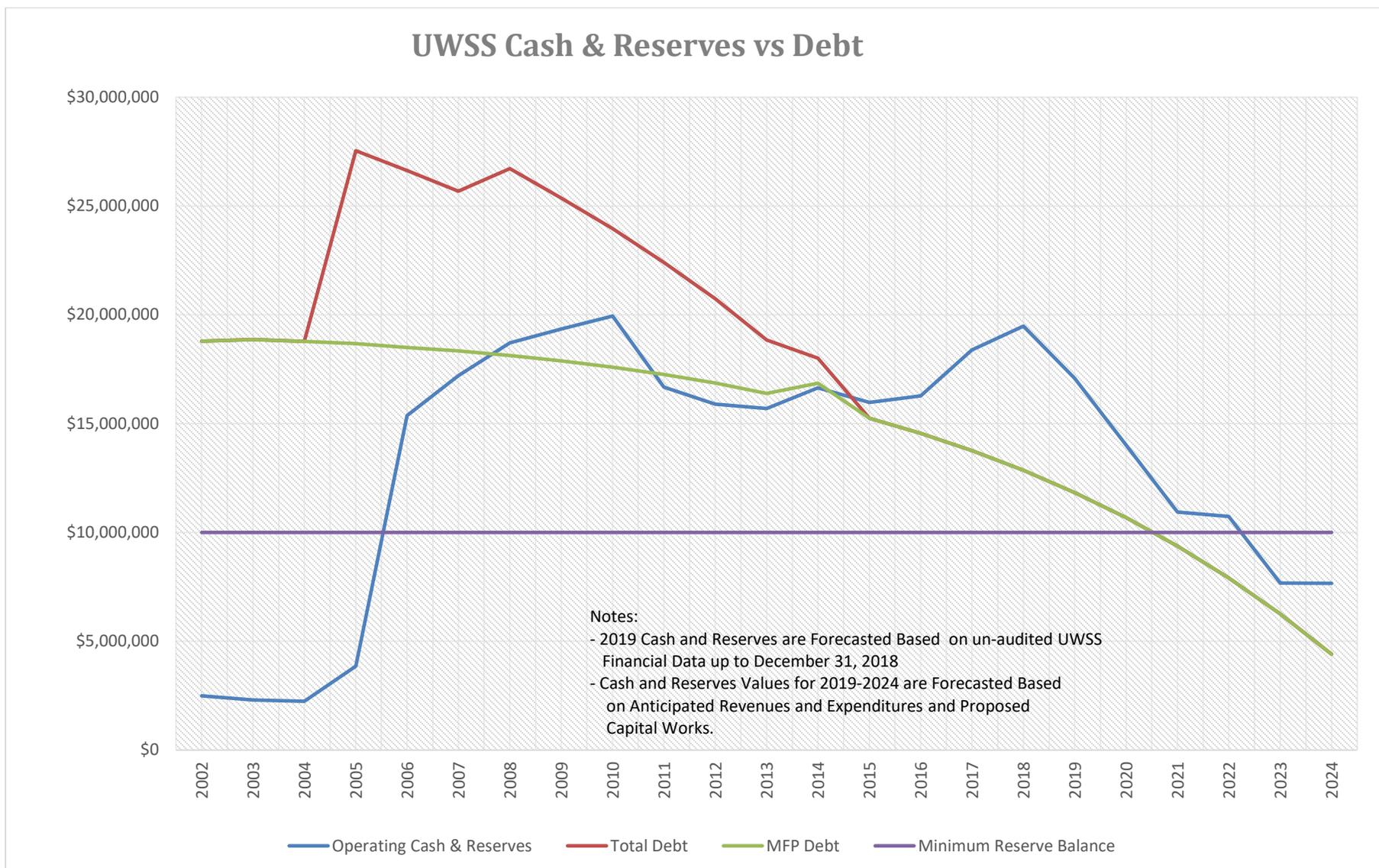
Cash and Reserves for UWSS for fiscal year-end 2018 are forecasted to be approximately \$19,476,000. It should be noted that of the estimated \$19,255,000 in available cash and reserves, \$10,000,000 is currently invested in a GIC until April 2022. Thus, approximately \$9,476,000 in cash and reserves are available for use to fund UWSS operations and capital works.

The 2019 Operating and Capital Budget projects a Net Deficit of (\$3,570,841) for 2019 year end. Thus, it is anticipated that UWSS cash and equivalents at the end of 2019 will decrease to approximately \$5,905,000.

Based on debt repayment schedules, the total UWSS long term debt balance as of December 31, 2018 is \$12,854,535 and consists solely of the Sunlife Debt (MFP Debt).

Figure 5 presents a graph comparing Total Debt and MFP Debt versus Cash Equivalents. It should be noted that "Cash & Reserves" for 2019-2024 are projected based on anticipated Revenues, Expenditures, and proposed Capital Works and are subject to significant changes.

Figure 5



### 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 (2019-2024) for the UWSS. This Plan reflects the UWSS General 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 following large capital works are included in the 6-Year Capital Plan:

<u>Proposed Capital Works</u>	<u>Estimated Cost</u>	<u>Proposed Year of Implementation</u>
- Clarifier Retrofit to Dissolved Air Floatation (DAF)	\$2,000,000	2020-2021
- Kingsville Tower Rehabilitation	\$1,100,000	2020
- UV Disinfection System in Primary Reservoir	\$5,500,000	2021
- Second Clarifier Retrofit to DAF	\$2,000,000	2022
- Replacement of 12-inch watermain to Cottam Booster	\$6,000,000	2020-2023
- Administration Building Expansion/Elevator	\$1,100,000	2023-2024
- Partial Residuals Management System	\$1,500,000	2024

The large capital items identified in the Table above are currently included as “placeholders” and undertaking of such works would be subject to thorough technical and financial evaluation and approval by the UWSS Board. Costs associated with these future capital works are preliminary and are included for Capital Planning and Finance purposes and are subject to change. 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.

It is the UWSS 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

Filename: T:\Union Wtr\Reports to Board\2019\UW03-18 Draft 2019 UWSS Operations and Capital Budget Report.January 9 2018.docx

DRAFT

**2019 UWSS DRAFT OPERATIONS AND CAPITAL BUDGET  
TABLES AND DETAILS**

**UNION WATER SUPPLY SYSTEM JOINT BOARD OF MANAGEMENT  
2019 Draft Budget  
Flows and Revenue**

Flow Metering Location	2018	2018	2019	2020	2021	2022	2023	2024
	Approved Budget	As of Dec 31st, 2018	\$0.05/1000 Gallon Rate Increase	\$0.11/1000 Gallon Rate Increase	\$0.12/1000 Gallon Rate Increase	\$0.12/1000 Gallon Rate Increase	\$0.12/1000 Gallon Rate Increase	\$0.13/1000 Gallon Rate Increase
Essex PUC	175,000,000	175,078,860	175,000,000	175,000,000	176,000,000	177,000,000	178,000,000	179,000,000
Gosfield N. Twsp	135,000,000	141,449,220	135,000,000	137,500,000	140,250,000	142,500,000	145,000,000	147,500,000
Gosfield S. Twsp	1,100,000,000	1,076,306,340	1,105,000,000	1,115,000,000	1,125,000,000	1,135,000,000	1,145,000,000	1,155,000,000
Highbury CanCo	220,000,000	255,926,660	215,000,000	225,000,000	235,000,000	245,000,000	255,000,000	265,000,000
Kingsville PUC	140,000,000	141,674,060	145,000,000	145,000,000	146,000,000	147,000,000	148,000,000	149,000,000
Leamington PUC	1,525,000,000	1,645,388,580	1,550,000,000	1,580,000,000	1,610,000,000	1,640,000,000	1,670,000,000	1,700,000,000
Lakeshore	105,000,000	105,550,060	105,000,000	105,000,000	106,000,000	107,000,000	108,000,000	109,000,000
<b>Total Flow:</b>	<b>3,400,000,000</b>	<b>3,541,373,780</b>	<b>3,430,000,000</b>	<b>3,482,500,000</b>	<b>3,538,250,000</b>	<b>3,593,500,000</b>	<b>3,649,000,000</b>	<b>3,704,500,000</b>
Rate 1 Flow	3,180,000,000	3,285,447,120	3,215,000,000	3,190,000,000	3,190,000,000	3,190,000,000	3,190,000,000	3,190,000,000
Rate 1	\$2.77	\$2.77	\$2.82	\$2.93	\$3.05	\$3.17	\$3.29	\$3.42
Rate 1 Revenue	\$8,808,600	\$9,100,689	\$9,066,300	\$9,346,700	\$9,729,500	\$10,112,300	\$10,495,100	\$10,909,800
Rate 2 Flow	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
Rate 2 Revenue	\$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
Rate 3 Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Highbury CanCo Flow	220,000,000	255,926,660	215,000,000	225,000,000	235,000,000	245,000,000	255,000,000	265,000,000
Highbury CanCo Rate	\$2.05	\$2.05	\$2.82	\$2.93	\$3.05	\$3.17	\$3.29	\$3.42
Highbury CanCo Revenue	\$451,000	\$524,650	\$606,300	\$659,250	\$716,750	\$776,650	\$838,950	\$906,300
Lifecycle Rate	\$0.24	\$0.24	\$0.36	\$0.36	\$0.36	\$0.36	\$0.36	\$0.36
	\$816,000	\$849,930	\$1,234,800	\$1,253,700	\$1,273,770	\$1,293,660	\$1,313,640	\$1,333,620
<b>Total Revenue</b>	<b>\$9,259,600</b>	<b>\$9,625,338</b>	<b>\$9,672,600</b>	<b>\$10,005,950</b>	<b>\$10,446,250</b>	<b>\$10,888,950</b>	<b>\$11,334,050</b>	<b>\$11,816,100</b>

## UNION WATER SUPPLY SYSTEM JOINT BOARD OF MANAGEMENT

2019 Draft Budget  
Budget Summary

	2018 Approved Budget	2018 Projected to Dec. 31st, 2018	2019 Rate Increase - \$0.05/1000	2020 Rate Increase - \$0.11/1000	2021 Rate Increase - \$0.12/1000	2022 Rate Increase - \$0.12/1000	2023 Rate Increase - \$0.12/1000	2024 Rate Increase - \$0.13/1000
<b>Water Flows</b>								
<b>REVENUE</b>								
Senior Government Grants	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Wholesale Rate Billings	\$9,259,600	\$9,625,338	\$9,672,600	\$10,005,950	\$10,446,250	\$10,888,950	\$11,334,050	\$11,816,100
Investment Income	\$400,000	\$503,173	\$450,000	\$459,000	\$468,180	\$477,544	\$487,094	\$496,836
Sundry revenue	\$24,000	\$44,344	\$21,000	\$21,420	\$21,848	\$22,285	\$22,731	\$23,186
<b>TOTAL REVENUES</b>	<b>\$9,683,600</b>	<b>\$10,172,855</b>	<b>\$10,143,600</b>	<b>\$10,486,370</b>	<b>\$10,936,278</b>	<b>\$11,388,779</b>	<b>\$11,843,876</b>	<b>\$12,336,122</b>
<b>OPERATING EXPENDITURE</b>								
General Administration	\$501,750	\$473,090	\$502,000	\$506,865	\$511,827	\$516,889	\$522,052	\$527,318
Miscellaneous Legal/Professional fees	\$75,000	\$77,460	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000
OCWA Operating Contract	\$2,876,500	\$2,799,837	\$3,265,000	\$3,330,300	\$3,396,906	\$3,464,844	\$3,534,141	\$3,604,824
Programs and Studies	\$326,000	\$165,500	\$140,000	\$310,000	\$210,000	\$185,000	\$185,000	\$185,000
Operational/Maintenance/Upgrades - General	\$285,000	\$128,620	\$270,000	\$270,000	\$270,000	\$270,000	\$305,000	\$270,000
CO2 Liquified Gas Procurement	\$0	\$0	\$175,000	\$178,500	\$182,070	\$185,711	\$189,426	\$193,214
Electricity and Natural Gas	\$1,250,000	\$1,190,953	\$1,250,000	\$1,275,000	\$1,300,500	\$1,326,510	\$1,353,040	\$1,380,101
<b>TOTAL OPERATING EXPENDITURES</b>	<b>\$5,314,250</b>	<b>\$4,835,460</b>	<b>\$5,647,000</b>	<b>\$5,915,665</b>	<b>\$5,916,303</b>	<b>\$5,993,954</b>	<b>\$6,133,658</b>	<b>\$6,205,457</b>
Debt Service	\$2,313,441	\$2,313,441	\$2,332,441	\$2,351,279	\$2,370,377	\$2,389,596	\$2,408,934	\$2,428,392
<b>TOTAL DEBT SERVICE EXPENDITURES</b>	<b>\$2,313,441</b>	<b>\$2,313,441</b>	<b>\$2,332,441</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>CAPITAL EXPENDITURE</b>								
Capital Repair, Maintenance & Upgrade Works	\$3,393,000	\$1,790,092	\$2,485,000	\$1,620,000	\$570,000	\$955,000	\$265,000	\$1,710,000
New Capital Works	\$2,020,000	\$142,395	\$3,250,000	\$3,000,000	\$5,150,000	\$2,250,000	\$6,100,000	\$2,000,000
Contingency								
<b>TOTAL CAPITAL EXPENDITURES</b>	<b>\$5,413,000</b>	<b>\$1,932,487</b>	<b>\$5,735,000</b>	<b>\$4,620,000</b>	<b>\$5,720,000</b>	<b>\$3,205,000</b>	<b>\$6,365,000</b>	<b>\$3,710,000</b>
<b>NET SURPLUS/(DEFICIT)</b>	<b>(\$3,357,091)</b>	<b>\$1,091,468</b>	<b>(\$3,570,841)</b>	<b>(\$2,400,574)</b>	<b>(\$3,070,402)</b>	<b>(\$199,771)</b>	<b>(\$3,063,717)</b>	<b>(\$7,727)</b>

UNION WATER SUPPLY SYSTEM JOINT BOARD OF MANAGEMENT

2019 Draft Budget

Operations and Debt Detail

Number	Account Description	2018	2018	2019	2020	2021	2022	2023	2024
		Approved Budget	As of Dec 31st, 2018	Budget- Rate Increase of \$0.05/1000 Gallons	Budget- Rate Increase of \$0.11/1000 Gallons	Budget- Rate Increase of \$0.12/1000 Gallons	Budget- Rate Increase of \$0.12/1000 Gallons	Budget- Rate Increase of \$0.12/1000 Gallons	Budget- Rate Increase of \$0.13/1000 Gallons
<b>REVENUE ACCOUNTS</b>									
<b>FEES REVENUE</b>									
0700-3700	Wholesale Rate Billings	\$9,259,600	\$9,625,338	\$9,672,600	\$10,005,950	\$10,446,250	\$10,888,950	\$11,334,050	\$11,816,100
		\$9,259,600	\$9,625,338	\$9,672,600	\$10,005,950	\$10,446,250	\$10,888,950	\$11,334,050	\$11,816,100
<b>MISCELLANEOUS REVENUES</b>									
0700-4100	Investment Income (Operations)	\$400,000	\$503,173	\$450,000	\$459,000	\$468,180	\$477,544	\$487,094	\$496,836
0700-3999	Sundry revenue	\$24,000	\$44,344	\$21,000	\$21,420	\$21,848	\$22,285	\$22,731	\$23,186
		\$424,000	\$547,517	\$471,000	\$480,420	\$490,028	\$499,829	\$509,826	\$520,022
	<b>TOTAL REVENUES :</b>	<b>\$9,683,600</b>	<b>\$10,172,855</b>	<b>\$10,143,600</b>	<b>\$10,486,370</b>	<b>\$10,936,278</b>	<b>\$11,388,779</b>	<b>\$11,843,876</b>	<b>\$12,336,122</b>
<b>EXPENDITURE ACCOUNTS</b>									
<b>WAGES AND BENEFITS</b>									
0700-5000	Salaried	\$175,000	\$169,931	\$180,000	\$183,600	\$187,272	\$191,017	\$194,838	\$198,735
	Part time	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0700-5200 to 5210	Benefits - Full time	\$62,000	\$65,500	\$63,250	\$64,515	\$65,805	\$67,121	\$68,464	\$69,833
	Benefits - Part time	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		\$237,000	\$235,431	\$243,250	\$248,115	\$253,077	\$258,139	\$263,302	\$268,568
<b>OFFICE OVERHEAD, RENTS AND SERVICES</b>									
0700-7010	Office supplies	\$2,000	\$1,346	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
0700-7015	Board expenses	\$1,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0700-7020	Dues, Memberships, Subsc	\$5,000	\$3,254	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
0700-7030	Travel & Mileage	\$2,000	\$2,930	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
0700-7040	Training	\$6,000	\$361	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
0700-7050	Conferences	\$6,000	\$4,936	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
0700-7052	Meeting Expenses	\$2,000	\$733	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
0700-7070	Uniforms/Clothing	\$500	\$0	\$500	\$500	\$500	\$500	\$500	\$500
0700-7950	Legal/Professional fees	\$75,000	\$77,460	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000
0700-7959-002070	Audit Fees	\$7,000	\$5,877	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500
0700-6750	Property Taxes	\$145,000	\$146,283	\$147,500	\$147,500	\$147,500	\$147,500	\$147,500	\$147,500
0700-7080 & 7085	Operational Purchases/Maint.	\$20,000	\$15,319	\$17,500	\$17,500	\$17,500	\$17,500	\$17,500	\$17,500
0700-7090	Sundry	\$250	\$0	\$250	\$250	\$250	\$250	\$250	\$250
0700-7090	Leamington Assistance	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
0700-7110	Communications	\$1,500	\$606	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
0700-7120	Postage & Courier	\$500	\$98	\$500	\$500	\$500	\$500	\$500	\$500
0700-7130	Advertising & Promotion	\$9,000	\$5,778	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000
0700-7140	Insurance	\$15,000	\$14,837	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
0700-7130	Donations & Grants	\$4,000	\$3,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
0700-7230 to 7290	Office equipment Purchases/Maint.	\$7,500	\$2,300	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
		\$339,750	\$315,119	\$303,750	\$303,750	\$303,750	\$303,750	\$303,750	\$303,750
0700-6720	OCWA Operating Union	\$2,876,500	\$2,799,837	\$3,265,000	\$3,330,300	\$3,396,906	\$3,464,844	\$3,534,141	\$3,604,824
0700-7410 & 7420	Electricity and Natural Gas	\$1,250,000	\$1,190,953	\$1,250,000	\$1,275,000	\$1,300,500	\$1,326,510	\$1,353,040	\$1,380,101
	CO2 Gas Bulk Purchase	\$0	\$0	\$175,000	\$178,500	\$182,070	\$185,711	\$189,426	\$193,214
		\$4,126,500	\$3,990,790	\$4,690,000	\$4,783,800	\$4,879,476	\$4,977,066	\$5,076,607	\$5,178,139
0700-7989-002070	Operational Programs & Studies	\$326,000	\$165,500	\$140,000	\$310,000	\$210,000	\$185,000	\$185,000	\$185,000
	Residuals Ponds Maintenance	\$150,000	\$65,186	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
	Watermain Repairs	\$100,000	\$31,934	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
	Municipal DW License Renewal	\$15,000	\$12,500	\$0	\$0	\$0	\$0	\$35,000	\$0
	Facility Enhancements - General	\$20,000	\$19,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
	<b>TOTAL OPERATIONAL EXPENDITURES:</b>	<b>\$5,314,250</b>	<b>\$4,835,460</b>	<b>\$5,647,000</b>	<b>\$5,915,665</b>	<b>\$5,916,303</b>	<b>\$5,993,954</b>	<b>\$6,133,658</b>	<b>\$6,205,457</b>
	<b>NET OPERATIONAL SURPLUS/(DEFICIT)</b>	<b>\$4,369,350</b>	<b>\$5,337,395</b>	<b>\$4,496,600</b>	<b>\$4,570,705</b>	<b>\$5,019,975</b>	<b>\$5,394,825</b>	<b>\$5,710,217</b>	<b>\$6,130,665</b>
<b>DEBT SERVICE</b>									
0700-6000 & 6100	Sun Life Debt Obligation	\$2,313,441	\$2,313,441	\$2,332,441	\$2,351,279	\$2,370,377	\$2,389,596	\$2,408,934	\$2,428,392
0700-6000 & 6100	Woodslee Credit Union								
0700-6000 & 6100	OSIFA								
0700-6010 & 6110	Leamington WM								
	<b>TOTAL DEBT SERVICE:</b>	<b>\$2,313,441</b>	<b>\$2,313,441</b>	<b>\$2,332,441</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>SURPLUS/(DEFICIT) AFTER DEBT</b>	<b>\$2,055,909</b>	<b>\$3,023,955</b>	<b>\$2,164,159</b>	<b>\$2,219,426</b>	<b>\$2,649,598</b>	<b>\$3,005,229</b>	<b>\$3,301,283</b>	<b>\$3,702,273</b>

**Union Water Supply System  
2019 Draft Budget  
Capital Budget Details**

Item Description	CATEGORY							FUNDING SOURCE		
	Studies	Treatment Plant Upgrades & Renewals	Low Lift Upgrades	Cottam Booster Upgrades	SCADA / Communication/ Security System Upgrades	Electrical Systems	Transmission Facilities	TOTAL	Revenue	Reserves
<b>STUDIES/PROGRAMS</b>										
Water Demand/usage/quality initiatives	\$60,000							\$60,000	\$60,000	\$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>\$140,000</b>							<b>\$140,000</b>	<b>\$140,000</b>	<b>\$0</b>
<b>CAPITAL WORKS/ MAJOR MAINTENANCE</b>										
Low Lift Pump #5 Rehab			\$35,000					\$35,000	\$35,000	\$0
Blue Green Algae/ Chlorophyll Probe - Low lift well			\$30,000					\$30,000	\$30,000	\$0
Low Lift Surge Tanks - Ladders and new compressors			\$40,000					\$40,000	\$40,000	\$0
Low Lift Main Electrical-Transformer/Feed/Switch Gear/Breaker Upgrades						\$200,000		\$200,000	\$200,000	\$0
Flow Meters and Control Valves - Clarifier #1 and #3		\$25,000						\$25,000	\$25,000	\$0
Carbon Feed Pumps (2)		\$30,000						\$30,000	\$30,000	\$0
Carbon Recirculation Pump Rehab		\$10,000						\$10,000	\$10,000	\$0
Carbon Scrubber System Upgrade		\$50,000						\$50,000	\$50,000	\$0
Turbidity Meters for Clarifier #3 and #4		\$10,000						\$10,000	\$10,000	\$0
Filter #2 and #4 Inlet Gate Replacement		\$30,000						\$30,000	\$30,000	\$0
Filter Meter Replacements - Filters 5,6,7 &8		\$35,000						\$35,000	\$35,000	\$0
Chlorine Analyzers - 5 units		\$25,000						\$25,000	\$25,000	\$0
Highlift Pump #10 - New		\$250,000						\$250,000	\$250,000	\$0
Upside Down Valve Corrosion Protection		\$100,000						\$100,000	\$100,000	\$0
Wastewater Pumps Rehab		\$10,000						\$10,000	\$10,000	\$0
Lighting Upgrade - Exterior Areas		\$10,000						\$10,000	\$10,000	\$0
Laboratory Upgrades		\$100,000						\$100,000	\$100,000	\$0
Power Factor Capacitor Upgrades - Low Lift and High Lift						\$50,000		\$50,000	\$50,000	\$0
Energy Monitoring and Management System - High Lift						\$35,000		\$35,000	\$35,000	\$0
SCADA System Upgrades (continued from 2018)		\$1,035,000						\$1,035,000	\$715,000	\$320,000
Security System Install					\$60,000			\$60,000	\$60,000	\$0
UWSS Wide Communication Upgrades					\$20,000			\$20,000	\$20,000	\$0
Cottam Booster Reservoir Regrading/Drainage				\$60,000				\$60,000	\$60,000	\$0
Rechlorination System Upgrades				\$30,000				\$30,000	\$30,000	\$0
Distribution System Components						\$75,000		\$75,000	\$75,000	\$0
Master Water Meters Upgrades						\$50,000		\$50,000	\$50,000	\$0
Treatment Plant Bldg Improvements - Admin Area/New offices		\$30,000						\$30,000	\$30,000	\$0
Grounds Improvements		\$50,000						\$50,000	\$50,000	\$0
<b>Total Capital Works/ Major Maintenance</b>		<b>\$1,800,000</b>	<b>\$105,000</b>	<b>\$90,000</b>	<b>\$80,000</b>	<b>\$285,000</b>	<b>\$125,000</b>	<b>\$2,485,000</b>	<b>\$2,165,000</b>	<b>\$320,000</b>
<b>NEW CAPITAL WORKS</b>										
DAF System Design		\$150,000						\$150,000	\$0	\$150,000
Chlorine Gas System Improvements and New Scrubber		\$1,550,000						\$1,550,000	\$0	\$1,550,000
CO2 pH Adjustment System Construction		\$1,550,000						\$1,550,000	\$0	\$1,550,000
<b>Total New Capital Works</b>		<b>\$3,250,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,250,000</b>	<b>\$0</b>	<b>\$3,250,000</b>
<b>TOTAL MAJOR MAINTENANCE and CAPITAL</b>		<b>\$5,050,000</b>	<b>\$105,000</b>	<b>\$90,000</b>	<b>\$80,000</b>	<b>\$285,000</b>	<b>\$125,000</b>	<b>\$5,735,000</b>	<b>\$2,165,000</b>	<b>\$3,570,000</b>

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

UNION WATER SUPPLY SYSTEM Six Year Recommended Capital / Major Maintenance - January 9, 2019								<span style="font-size: 2em; font-weight: bold; text-decoration: underline;">DRAFT</span>
	2019	2020	2021	2022	2023	2024	Total Capital Expenditures 2018-2024	Comments
<b>Union Area Water Supply System</b>								
<b>Studies and Programs</b>								
							\$ -	
Water Demand/Usage/Quality Initiatives	\$ 60,000	\$ 60,000	\$ 60,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 285,000	Smart Water Study, etc.
New Ruthven WTP Reservoir #3 Study	\$ 40,000						\$ 40,000	CWN Algae Study, Corrosion Monitoring
Backup power generation / energy study	\$ 40,000						\$ 40,000	M&T System installation in 2017 for Low Lift
Cottam 12-inch main replacement- EA & Prelim Eng		\$ 250,000					\$ 250,000	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	\$ 600,000	
<b>Subtotal Studies and Programs</b>	<b>\$ 140,000</b>	<b>\$ 310,000</b>	<b>\$ 210,000</b>	<b>\$ 185,000</b>	<b>\$ 185,000</b>	<b>\$ 185,000</b>	<b>\$ 1,215,000</b>	
<b>Low Lift</b>								
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		\$ 100,000					\$ 100,000	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		\$ 120,000					\$ 120,000	installed in 1994; upgrades planned for 2020
Pump Wells(2)							\$ -	cleaned & inspected annually
Low Lift Pump 1 *(Note 1)			\$ 30,000				\$ 30,000	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	\$ 65,000	
Low Lift Pump 6		\$ 35,000					\$ 35,000	rebuilt in 2008
Low Lift Pump 7			\$ 35,000				\$ 35,000	rebuilt in 2008
Zebra Mussel Control System			\$ 50,000				\$ 50,000	Zebra mussel intake upgrades
Pump discharge line							\$ -	
Low Lift Surge Tanks (2) and Compressor System *(Note 6)	\$ 40,000						\$ 40,000	Ladder/safety system; 2 new compressors needed
Low Lift Diesel Generator			\$ 50,000				\$ 50,000	O & M Contracted to Genrep
Low Lift transformer, feed, switch gear, breaker upgrades	\$ 200,000						\$ 200,000	Electrical Transformer, switchgear etc is obsolete Needs to be upgraded
<b>General Building Maintenance &amp; Equipment</b>								
Roadway upgrades to Maintenance Area -				\$ 75,000			\$ 75,000	upgrade of roadway to rear plant area
Asphalt Pavement Sealing - Low lift, treatment plant, CBS							\$ -	
New Maintenance Shop Building							\$ -	
Building/Grounds -	\$ 50,000	\$ 50,000	\$ 50,000	\$ 100,000			\$ 250,000	Concrete pad for maint. Shop; tree removal low lift
Upgrades to Pole Barn - Roof, electric, etc.							\$ -	
							\$ -	
<b>Clarification System</b>								
Clarifier 1 -	\$ 12,500						\$ 12,500	New Flow meter and control valve
Clarifier 2 -							\$ -	To be retrofitted to DAF in 2020
Clarifier 3	\$ 12,500						\$ 12,500	New Flow meter and control valve
Clarifier 4							\$ -	
<b>Chemical System</b>								
Coagulant Feed System			\$ 30,000				\$ 30,000	Upgraded in 2013

Coagulant Storage			\$ 30,000				\$ 30,000	
Coagulant Aid System		\$ 20,000					\$ 20,000	
<b>Carbon Feed System</b>							\$ -	
Carbon Flushing Lines							\$ -	
Tank Mixers (3)							\$ -	
Recirc. Pump	\$ 10,000						\$ 10,000	System upgraded 2015
Slurry Transfer Pumps (2)							\$ -	Inspection and refurbishment needed
Carbon Feed Pumps (4)	\$ 30,000			\$ 40,000			\$ 70,000	Larger pumps required
Carbon Scrubber System	\$ 50,000						\$ 50,000	requires upgrade
<b>Filtration</b>							\$ -	
Filter 1							\$ -	Fully upgraded in 2012
Filter 2	\$ 15,000						\$ 15,000	new media/air scour in 2014; new inlet gate needed
Filter 3							\$ -	Fully upgraded in 2013
Filter 4	\$ 15,000						\$ 15,000	new media/air scour in 2014; new inlet gate needed
Filter 5							\$ -	New Media in 2017
Filter 6							\$ -	new media in 2018
Filter 7							\$ -	New Media in 2017
Filter 8							\$ -	new media in 2018
Turbidity Meters for Filter Backwash							\$ -	New items to optimize backwash process
Filter Meter Replacements	\$ 35,000						\$ 35,000	New Filter meters for Filters 6-8
Valves							\$ -	Completed in 2016-2017
Removal of Microstrainers/ Install of Flooring							\$ -	Microstrainer No. 2 to be removed
<b>Pumps</b>							\$ -	
Backwash Pump 1 - Actuator upgrade							\$ -	new actuator
Backwash Pump 2				\$ 100,000			\$ 100,000	new in 1996
High Lift Pump 1 *(Note 2) Diesel Pump							\$ -	motor repairs 2018
High Lift Pump 2							\$ -	Replaced 2013
High Lift Pump 3							\$ -	rebuilt 2006
High Lift Pump 4							\$ -	rebuilt 2007
High Lift Pump 5							\$ -	rebuilt 2008
High Lift Pump 6							\$ -	new pump 2013
High Lift Pump 7							\$ -	
High Lift Pump 8							\$ -	new in 1996, rebuilt 2015
High Lift Pump 9				\$ 125,000			\$ 125,000	new in 1996
High Lift Pump No. 10	\$ 250,000						\$ 250,000	New pump needed in newer high lift bay
High Lift Reservoirs and components	\$ 100,000		\$ 50,000		\$ 50,000		\$ 200,000	Upside down valve/piping corrosion protection
Wastewater Pumps (2)	\$ 10,000			\$ 10,000			\$ 20,000	RSP #2 replacement
Diesel Generator 1 (170 kW)							\$ -	
Diesel Generator 2 (750 kW)							\$ -	
Diesel Generator Upgrades						\$ 1,500,000	\$ 1,500,000	
HL Compressor 1							\$ -	Replacement
HL Compressor 2		\$ 15,000					\$ 15,000	Replacement
HL Compressor 3			\$ 15,000	\$ 15,000			\$ 30,000	Replacement
<b>Main Plant Electrical</b>							\$ -	
Electrical/Lighting Upgrades	\$ 10,000	\$ -					\$ 10,000	Upgrades for lighting in external areas
Power Factor Capacitors for Energy Management	\$ 50,000						\$ 50,000	Capacitors are failing. Upgrades needed
Energy Monitoring and Management System - High Lift	\$ 35,000						\$ 35,000	
Generator B Transfer Switch Automation							\$ -	Completed in 2014
<b>Disinfection</b>							\$ -	
Dehumidification							\$ -	
Chlorine Feed System							\$ -	
Ammonia Feed System							\$ -	installed new in 2002
Scrubber System							\$ -	new acid pump installed in 2009
<b>SCADA /Communication/Security</b>							\$ -	
Security System Install	\$ 60,000						\$ 60,000	Keyless entry security system
System upgrade and Maintenance	\$ 1,035,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 1,185,000	New SCADA System in 2018/2019; maintenance after
UWSS Wide Communication System Improvements	\$ 20,000	\$ 20,000	\$ 20,000	\$ 50,000	\$ 20,000	\$ 20,000	\$ 150,000	improvements to existing communication system
<b>Monitoring Equipment</b>							\$ -	
Turbidity Meter Replacement -	\$ 10,000						\$ 10,000	For clarifiers #3 and #4 monitoring

Chlorine Analyzer Replacements	\$ 25,000						\$ 25,000	4 new units needed
Blue Green Algae Monitoring Probe	\$ 30,000						\$ 30,000	2 new units needed
<b>Building Maintenance</b>								
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	\$ 30,000						\$ 30,000	
Laboratory Upgrade	\$ 100,000						\$ 100,000	Laboratory to be moved to old microtrainer room and
<b>New Equipment</b>								
Portable Backup Generator for Low Lift, Water Towers, Emergency							\$ -	Purchased in 2016
<b>Cottam Reservoir &amp; Booster PS</b>								
Reservoir - 2 water mixers							\$ -	repairs to isolation valves, and installation of 2 mixer pumps
Booster Pump 1							\$ -	Completed 2013
Booster Pump 2							\$ -	new in 1996
Booster Pump 3							\$ -	new in 1996
Booster Pump 4			\$ 35,000				\$ 35,000	new in 1996
Surge Tanks (2)							\$ -	Insurance inspected in 2009, needs internal inspection
Compressor			\$ 15,000				\$ 15,000	Replaced 2012
Reservoir Cover Regrading/Repairs	\$ 60,000						\$ 60,000	Started in Dec. 2018/to be completed in 2019
Rechlorination system upgrades	\$ 30,000						\$ 30,000	Rechlorination system is old and obsolete; needs upgrade
Cottam MCC PLC Upgrade							\$ -	Completed 2014
<b>Distribution System</b>								
Leamington Tower							\$ -	New Cathodic System installed in 2018
Albuna Tower				\$ 250,000			\$ 250,000	New Control Valve on 42inch for Albuna Control
Kingsville Tower		\$ 1,100,000					\$ 1,100,000	Safety Upgrades and Painting (2020)
Essex Tower			\$ 30,000				\$ 30,000	recoated and upgraded in 2018; new cathodic system 2020
Distribution System Maintenance	\$ 75,000	\$ 100,000	\$ 100,000	\$ 100,000			\$ 375,000	New valves/actuators/etc.
Master Water Meter Replacement/Upgrades	\$ 50,000						\$ 50,000	Meter 21; communication systems
<b>Wastewater Treatment System</b>								
Wastewater Lagoon Upgrades					\$ 100,000	\$ 100,000	\$ 200,000	Clay liner improvements
Residuals Management system (see new capital works)							\$ -	
							\$ -	
<b>NEW CAPITAL WORKS</b>								
							\$ -	
CO2 pH Adjustment System Install	\$ 1,550,000						\$ 1,550,000	New CO2 based pH adjustment system/pretreatment
UV Disinfection - In-reservoir UV vault		\$ 1,000,000	\$ 4,500,000				\$ 5,500,000	New UV Disinfection System.
Dry Scrubber - Chlorine Gas system upgraded	\$ 1,550,000						\$ 1,550,000	Chlorine Building Expansion and Dry Scrubber Install
Pre-Treatment/clarification upgrades (DAF) design	\$ 150,000	\$ 2,000,000	\$ 150,000	\$ 2,000,000			\$ 4,300,000	Conversion of Clarifiers No 1 and 2 to DAF
Residuals management Polymer system waste system upgrades			\$ 500,000			\$ 1,000,000	\$ 1,500,000	Residuals staging/ dewatering area and Polymer/thickening process for residuals
Admin Building upgrades, expansion and elevator					\$ 100,000	\$ 1,000,000	\$ 1,100,000	Office Admin area expansion and new elevator
Replacement of 12-inch Cottam Water Main				\$ 250,000	\$ 6,000,000		\$ 6,250,000	New 18-inch watermain to cottam

Subtotal Capital and Major Maintenance \$2,485,000 \$1,620,000 \$570,000 \$955,000 \$265,000 \$1,710,000 \$ 7,605,000

Total New Capital Works \$3,250,000 \$3,000,000 \$5,150,000 \$2,250,000 \$6,100,000 \$2,000,000 \$ 21,750,000

**TOTAL CAPITAL \$5,735,000 \$4,620,000 \$5,720,000 \$3,205,000 \$6,365,000 \$3,710,000 \$ 29,355,000**

\$ -

Subtotal Studies and Programs \$140,000 \$310,000 \$210,000 \$185,000 \$185,000 \$185,000 \$ 1,215,000

Contingency \$ -

**TOTAL CAPITAL, STUDIES AND NEW CAPITAL \$ 5,875,000 \$ 4,930,000 \$ 5,930,000 \$ 3,390,000 \$ 6,550,000 \$ 3,895,000 \$ 30,570,000**

UW/04/19

## Report

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

From: Rodney Bouchard, Union Water Manager

Date: January 11, 2019

Re: CO2 pH Adjustment/ Chlorine System Improvements Project Tender Result

---



### Recommendation:

That the UWSS Board approves a budget of \$3,100,000 for the CO2 pH Adjustment/ Chlorine System Improvements Project to be funded from the UWSS Reserves Fund; and,

That the UWSS Board authorizes the UWSS General Manager to award the Tender for the Union Water Supply System Ruthven Water Treatment Plant CO2 Injection and Chlorine Gas System Implementation Project to Maple Reinders Constructors Limited in the amount of \$2,937,000 (\$2,437,000 plus a Contingency Allowance of \$500,000) not including HST.

### Background:

In August 2017, UWSS retained Associated Engineers to complete preliminary Engineering and Design for a Carbon Dioxide Injection System for Raw Water pH Adjustment. A budget of \$125,000 was approved by the UWSS Board at the August 2, 2017 Board meeting to complete this work. At the July 18, 2018 UWSS Board meeting, the UWSS Board approved to undertake the Design, Engineering and Construction for Primary Chlorine Disinfection System Improvements. This design work was to be completed by Associated Engineering in conjunction with the CO2 pH adjustment system design work.

### Discussion:

Associated Engineering completed the 90% design package for the project in October 2018. This was reviewed with UWSS and OCWA operations staff and approved for Tendering to pre-selected qualified contractors. Five contractors with experience in this type of work were contacted to ascertain their interest in the project. Three contractors

(Kingdom Construction, Kenaidan Contracting Ltd, and Maple Reinders Constructors) indicated their interest in tendering on the work.

Associated Engineering issued the tender on November 12, 2018. A mandatory site meeting was held at the UWSS Ruthven Water Treatment Plant on November 21, 2018. Two contractors, Kingdom Construction and Maple Reinders Constructors, attended the mandatory site meeting. The third interested contractor, Kenaidan Construction was disqualified from the tendering process due to not being present at the mandatory site meeting.

The initial tender closing date of December 7<sup>th</sup>, 2018 was extended to December 14<sup>th</sup>, 2018 due to the number of addendums that were issued to the tender. Two tenders were received from general contractors in response to the invitation-only Tender Call. Associated Engineering reviewed the received tenders to ensure accuracy and compliance with the issued tender documents. A summary of the reviewed Tenders is provided below:

<b>Proponent</b>	<b>Reviewed Tender Price (including Contingency Allowance)</b>	<b>Proposed Contract Time (weeks)</b>
Maple Reinders Constructors Ltd.	\$2,937,000.00	40
Kingdom Construction Ltd.	\$3,120,184.17	36

Based on a review of the tenders submitted, Associated Engineering provided a Contractor Award Recommendation in a letter to UWSS General Manager dated December 21, 2018. A copy of this letter is attached to this report. In their contractor award recommendation letter, Associated Engineering recommended award of the tender to Maple Reinders Constructors Ltd in the amount of \$2,937,000.00 (not including HST) comprising of a lump sum bid price of \$2,437,000.00 and a contingency allowance of \$500,000.00. In the letter, it is also noted that as per the tender Bid Form, payment of the Contingency Allowance or portions thereof will only be made for approved changes as per the General Conditions of the Bid Form. Any unused portion of the Contingency Allowance would be retained by UWSS.

### **Financial Implications:**

The UWSS General Manager requests a budget of \$3,100,000 for the proposed works. This budget would accommodate the tender amount for construction services by Maple Reinders Construction, contract management, engineering and inspection services by Associated Engineering and any other incidentals. This budget would be funded from UWSS Reserves Funds.

**Closing Comments:**

Based on the results of the Tendering for CO2 pH Adjustment/ Chlorine System Improvements Project, it is recommended that the contract be awarded to the low bidder, Maple Reinders Constructors, in the amount of \$2,937,000.00 and that a budget of \$3,100,000 to be funded from UWSS Reserves be approved to accommodate this work.

Respectfully submitted,



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

rb/kmj

Filename: T:\Union Wtr\Reports to Board\2019\UW04-19 -CO2 pH Adjustment & Chlorine System Improvements Tender Results.January 11, 2019.docx

December 21, 2018  
File: 20175156

Rodney R. Bouchard  
General Manager  
Union Water Supply System  
1615 Union Ave., Box 340  
Ruthven, Ontario  
N0P 2G0

**Re: UNION WATER SUPPLY SYSTEM RUTHVEN WTP CO<sub>2</sub> INJECTION AND CL<sub>2</sub> GAS SYSTEMS IMPLEMENTATION - CONTRACTOR AWARD RECOMMENDATION**

Dear Mr. Bouchard:

Two (2) Tenders were received from General Contractors in response to the subject invitation-only Tender Call. A summary of the reviewed Tenders (In Alphabetical order) is provided below:

<b>Proponent</b>	<b>Tender Price Recorded at Tender Opening</b>	<b>Corrected Tender Price</b>	<b>Proposed Contract Time (weeks)</b>
Kingdom Construction Ltd.	\$3,120,184.17	\$3,120,184.17	36
Maple Reinders Constructors Ltd.	\$2,937,000.00	\$2,937,000.00	40

A mathematical check of the Lump Sum Price Breakdown Form for each of the submitted Tenders was performed. No rounding or mathematical errors were found in either submission by the Proponents and the low price received is confirmed to be from Maple Reinders Constructors Ltd. as shown above.

Associated Engineering's pre-tender estimate included base scope items at a value of \$2,656,500.00 with a Contingency Allowance of \$500,000.00 for an estimated total lump sum bid price of \$3,156,500.00 (excluding H.S.T.). The pre-Tender estimate was 8% higher than the lowest received Tender Price. This is within the expected accuracy of +/- 10% for a pre-Tender estimate.

Upon review of Lump Sum Price Breakdown from both Proponents, it was observed that there was a significant price difference between Proponent's prices in Items #1, 5, 11, 13, 15 and 16. The differences of prices in these items may be attributed to the following:



December 21, 2018  
Rodney R. Bouchard  
Union Water Supply System  
- 2 -

- Maple Reinders opted to carry Selectra as Electrical Subcontractor whereas Kingdom Construction opted to utilize its own Forces. This would account for Maple Reinders price difference in Items No. 13 and No. 16 when compared to Kingdom Construction.
- Maple Reinders distributed what accounts for the difference in price for Items No.11 through No. 16 to Item No.1 – General Requirements, Mobilization
- During the Tender Period, Significant additions were made to scope of work under Item No. 5, such as the addition of bollards, ladders and hatches.

The distribution of approximately \$400,000.00 from Items No.11 through No.16 to Item No.1 in Maple Reinders's bid would be a form of warranting a pro-rated cash flow distribution tied to schedule for the duration of the Contract. To mitigate any concerns of a loaded front end or back end payment by Union Water Supply System, the Contract Specifications constraint a maximum cost of 2.5% of the Total Contract Value charged for Mobilization and Demobilization activities.

The proposed Contract Time for both Tenders exceeds the 26-week time period provided in the Tender Documents. The difference from the estimated Contract Time and proposed Contract Time may be caused by the 20-week lead time for the CO<sub>2</sub> equipment and the effect of such on testing and commissioning of all equipment; additionally, the field investigation of existing utilities may contribute to the additional Contract Time to mitigate risk to existing infrastructure. As the implementation of the CO<sub>2</sub> and Cl<sub>2</sub> system is not expected to reduce water production due to shut downs/integration, the Proposed Contract Time of 36-40 weeks is not expected to have a severe impact on the overall Project.

AE has reviewed the mandatory requirements and Supplement to Bid Forms submitted by all Bidders. Both Contractors have satisfactorily complied with Tender requirements in submitting the following:

- Bid Form – Section 00410
- Bid Bond – Section 00433
- Substitution List – Section 00436
- Subcontract List – Section 00437
- Lump Sum Price Breakdown – Section 00438
- Force Account Rates – Section 00439
- Bidder's Qualifications – Section 00451
- Consent of Surety Company – Section 00611

Kingdom Construction Ltd. however, did not submit a letter of intent from a Surety Company outlining their requirements under this Contract as outlined in Specification Section 00710 – Insurance.



December 21, 2018  
Rodney R. Bouchard  
Union Water Supply System  
- 3 -

Based on the review of the tenders submitted by the above two (2) Proponents, Associated Engineering recommends that Union Water Supply System proceed with the award of the Tender to Maple Reinders Constructors Ltd. in the amount of \$3,318,810.00 (including H.S.T.) comprising of a lump sum bid price of \$2,437,000.00, a contingency allowance of \$500,000.00 plus H.S.T. of \$381,810.00 for a total project duration of 40 weeks. As noted in the tender Bid Form, payment of the Contingency Allowance or portions thereof will only be made in the event that Changes are implemented as provided for in the General Conditions. Any unused portion of the Contingency Allowance will be retained by the Owner.

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

Yours truly,

Vincent Laplante, P. Eng.  
Project Manager

VL/cb

UW/05/19

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

From: Rodney Bouchard, Union Water Manager

Date: January 11, 2019

Re: Payments for the UWSS from November 16, 2018 to January 11, 2019



---

**Aim:**

To provide the Board with a copy of payments made by the Union Water Supply System from November 16, 2018 to January 11, 2019.

**Recommendation:**

For information purposes.

Respectfully submitted,



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

rb/kmj

Filename: T:\Union Wtr\Reports to Board\2019\UW05-19 Payments from Nov 2018 to January 11, 2019.docx

**MUNICIPALITY OF LEAMINGTON**  
**Council/Board Report By Dept-(Computer)**



AP5130

Date : Nov 30, 2018

Page 48 of 59

Time : 1:50 pm

Vendor : 0011450 To PT00000163  
 Batch : All  
 Department : All

Cheque Print Date : 19-Nov-2018 To 30-Nov-2018  
 Bank : 07 To 08  
 Class : All

Vendor Invoice	Vendor Name Description	Batch	Inv Date	Inv Due Date	Amount
G.L. Account	CC1 CC2 CC3 GL Account Name				
<b>DEPARTMENT 0700 Union Water System</b>					
<b>020120 BELL MOBILITY CELLULAR</b>					
51487718-NOV MONTHLY CELL PHONE CHARGES		620	01-Nov-2018	29-Nov-2018	
70-5-0700-7110	002070 002083 Telecommunications Usage				68.16
<b>030004 C3 WATER INC</b>					
201810-288 WATER MODELING UPDATES		628	19-Nov-2018	29-Nov-2018	
70-5-0700-7989	002075 Operational Programs & Studies				6,596.94
<b>030410 COLASANTI'S RESTAURANT</b>					
E10166 NOV BOARD MEETING		628	21-Nov-2018	29-Nov-2018	
70-5-0700-7052	002070 Meeting Expenses				40.30
<b>140135 NEVTRO SALES (2004) LTD</b>					
4635 MAIN WASH ONE - BACKWASH PUMP		628	05-Nov-2018	29-Nov-2018	
70-7-0700-8740	700052 Pumps				15,537.26
<b>230089 WATSON &amp; ASSOCIATES ECONOMISTS LTD</b>					
0024712 FINANCIAL PLAN 2018		628	31-Oct-2018	29-Nov-2018	
70-5-0700-7950	002070 Professional Services				980.28
<b>Department Totals :</b>					<b>23,222.94</b>

**MUNICIPALITY OF LEAMINGTON**  
**Council/Board Report By Dept-(EFT)**



AP5130

Date :

Nov 30, 2018

Page 49 of 59  
 Page : 65  
 Time : 1:50pm

**Vendor :** 0011450 To PT00000163  
**Batch :** All  
**Department :** All

**EFT Paid Date :** 19-Nov-2018 To 30-Nov-2018  
**Bank :** 07 To 08  
**Class :** All

Vendor Code	Vendor Name				Batch	Invc Date	Invc Due Date	Amount
Invoice No.	Description							
G.L. Account	CC1	CC2	CC3	GL Account Name				
<b>DEPARTMENT 0700</b>					Union Water System			
<b>080250</b>					<b>HYDRO ONE NETWORKS INC</b>			
200141677460	-1 OCT HYDRO - RUTHVEN WATER TREATMENT PLANT				617	07-Nov-2018	21-Nov-2018	
70-5-0700-7420	002073			Electricity				61,163.83
200141680692	-1 OCT HYDRO - LOW LIFT				617	07-Nov-2018	21-Nov-2018	
70-5-0700-7420	002073			Electricity				-4.16
70-5-0700-7420	002073			Electricity				32,730.35
200152134969	-1 OCT HYDRO - METER#17				617	07-Nov-2018	21-Nov-2018	
70-5-0700-7420	002073			Electricity				-2.35
70-5-0700-7420	002073			Electricity				33.20
200208899066	-1 OCT/18 HDYRO - METER #16				619	14-Nov-2018	29-Nov-2018	
70-5-0700-7420	002073			Electricity				-6.56
70-5-0700-7420	002073			Electricity				92.63
<b>210120</b>					<b>UNION GAS LTD</b>			
1929770177678	408.673M3 GAS - COTTAM BOOSTER STN				619	12-Nov-2018	29-Nov-2018	
70-5-0700-7410	002073			Gas				130.44
<b>Department Totals :</b>								<b>94,137.38</b>



Vendor : 0011450 To PT00000163  
 Batch : All  
 Department : All

Cheque Print Date : 03-Dec-2018 To 13-Dec-2018  
 Bank : 07 To 08  
 Class : All

Vendor Invoice	Vendor Name Description	Batch	Inv Date	Inv Due Date	Amount
G.L. Account	CC1 CC2 CC3 GL Account Name				
<b>DEPARTMENT 0700 Union Water System</b>					
<b>010103 ASSOCIATED ENGINEERING (ONT) LTD</b>					
525024	SCADA UPGRADES - NOV9	647	26-Nov-2018	13-Dec-2018	
70-7-0700-8780	SCADA System				2,375.94
525027	CO2 WATER PH ADJ. SYSTEM - NOV9	647	26-Nov-2018	13-Dec-2018	
70-7-0700-8745	700200 Treatment Plant				24,237.71
<b>030443 CONTINENTAL CARBON GROUP INC</b>					
2804	MEDIA REPLACEMENT - FILTER #6 & 8	647	10-Dec-2018	13-Dec-2018	
70-7-0700-8730	700016 Filters				65,234.90
70-7-0700-8730	700018 Filters				65,234.90
<b>050003 E.L.K. ENERGY INC</b>					
40010915-NOV	1039KWH - ESSEX WATER TOWER	643	01-Dec-2018	06-Dec-2018	
70-5-0700-7420	002073 Electricity				142.57
70-5-0700-7420	002073 Electricity				-10.09
40047150-NOV	107KWH - METER#9	643	01-Dec-2018	06-Dec-2018	
70-5-0700-7420	002073 Electricity				-2.23
70-5-0700-7420	002073 Electricity				31.51
51976611-NOV	NOV/18 HYDRO - KINGSVILLE WATER TOWER	643	01-Dec-2018	06-Dec-2018	
70-5-0700-7420	002073 Electricity				-13.86
70-5-0700-7420	002073 Electricity				195.85
90006300-NOV	12960KWH - COTTAM BOOSTER STATION	643	01-Dec-2018	06-Dec-2018	
70-5-0700-7420	002073 Electricity				2,155.32
<b>997507 JDC.CA INC</b>					
8911	FIBER OPTICS	643	31-Aug-2018	06-Dec-2018	
70-7-0700-8775	Communication System				5,840.73
<b>150365 ONTARIO CLEAN WATER AGENCY</b>					
INV000108746	NOV/18 OPER & MTCE	647	30-Nov-2018	13-Dec-2018	
70-5-0700-6720	002071 OCWA Operating Contract				227,203.56
INV000108801	EWT - MGMT FEES	647	04-Dec-2018	13-Dec-2018	
70-7-0700-8705	Essex Water Tower				1,966.20
INV000108891	DEC/18 OPER&MTCE	647	01-Dec-2018	13-Dec-2018	
70-5-0700-6720	002071 OCWA Operating Contract				227,203.56
<b>180325 RICOH CANADA INC</b>					
SCO92196599	OCT4-NOV30 COPIER CONTRACT	647	30-Nov-2018	13-Dec-2018	
70-5-0700-7010	002070 Office Supplies				96.72
<b>190635 STANTEC CONSULTING LTD</b>					
1330512	PROF. SERV. - DRAWINGS - NOV16	647	20-Nov-2018	13-Dec-2018	
70-5-0700-7950	002070 Professional Services				263.61
1330934	WTP ADMIN. AREA - CONSULTANTS - NOV16	647	21-Nov-2018	13-Dec-2018	
70-5-0700-7950	002070 Professional Services				1,474.85
1331285	COTTAM BOOSTER STN - RESERVOIR COVER	647	22-Nov-2018	13-Dec-2018	
70-7-0700-8725	700040 Cottam Booster Station				5,632.64
<b>190751 SUMMA ENGINEERING LIMITED</b>					
PC#2 114297	PMT#2 SCADA UPGRADES	647	20-Nov-2018	13-Dec-2018	
70-7-0700-8780	SCADA System				18,421.03
<b>190755 SUN LIFE ASSURANCE COMPANY OF CANADA</b>					
DEC-18	DEC/18 UNION WATER LOAN 3724:1	647	06-Dec-2018	13-Dec-2018	
70-5-0700-6000	002020 006901 Debenture Principal				25,611.58
70-5-0700-6100	002010 006901 Debenture Interest				113,194.86

Council/Board Report By Dept-(Computer)



Vendor : 0011450 To PT00000163

Batch : All

Department : All

Cheque Print Date : 03-Dec-2018 To 13-Dec-2018

Bank : 07 To 08

Class : All

Vendor Invoice	Vendor Name Description				GL Account Name	Batch Invc Date	Invc Due Date	Amount
G.L. Account	CC1	CC2	CC3					
DEPARTMENT 0700					Union Water System			
<b>Department Totals :</b>								<b>786,491.86</b>



**Vendor :** 0011450 To PT00000163  
**Batch :** All  
**Department :** All

**EFT Paid Date :** 03-Dec-2018 **To** 13-Dec-2018  
**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</b> Union Water System									
<b>030405 COLLABRIA</b>									
CWWA NOV4-6 2018 WATER&WASTEWATER CONF.					639	13-Oct-2018	05-Dec-2018		
70-5-0700-7050	002070			Conferences				1,006.03	
HOTEL BONAVI ROOM - CWWA CONF.					639	12-Nov-2018	05-Dec-2018		
70-5-0700-7050	002070			Conferences				1,071.33	
I-4530007181 CAR RENTAL - MEETING EXPENSES					639	17-Oct-2018	05-Dec-2018		
70-5-0700-7030	002070			Travel & Mileage				63.66	
MONTREAL TA' TAXI - CWWA CONF.					639	11-Mar-2018	05-Dec-2018		
70-5-0700-7050	002070			Conferences				49.20	
STAPLES-00270 PRINTER CABLE					639	02-Nov-2018	05-Dec-2018		
70-5-0700-7010	002070			Office Supplies				33.89	
TAXI CHAMPLA TAXI - CWWA CONF.					639	03-Nov-2018	05-Dec-2018		
70-5-0700-7050	002070			Conferences				11.45	
URBAN CRAVE MEAL - CWWA CONF.					639	07-Nov-2018	05-Dec-2018		
70-5-0700-7050	002070			Conferences				26.22	
WINDSOR AIRP PARKING - NOV3-7 - CWWA CONF.					639	03-Dec-2018	05-Dec-2018		
70-5-0700-7050	002070			Conferences				50.00	
<b>050195 ESSEX POWERLINES CORPORATION</b>									
220651-NOV18 22KWH - METER#4					642	22-Nov-2018	06-Dec-2018		
70-5-0700-7420	002073			Electricity				-3.27	
70-5-0700-7420	002073			Electricity				46.21	
<b>080250 HYDRO ONE NETWORKS INC</b>									
200141677460-I NOV/18 HDYRO - RUTHVEN WTP					652	06-Dec-2018	13-Dec-2018		
70-5-0700-7420	002073			Electricity				47,396.33	
200141680692-I NOV/18 HYDRO - LOW LIFT					652	06-Dec-2018	13-Dec-2018		
70-5-0700-7420	002073			Electricity				-4.65	
70-5-0700-7420	002073			Electricity				24,369.59	
200141680894-I NOV/18 HYDRO - LEAM. WATER TOWER					642	29-Nov-2018	06-Dec-2018		
70-5-0700-7420	002073			Electricity				-25.13	
70-5-0700-7420	002073			Electricity				354.97	
200141681706-I NOV/18 HYDRO - METER#2					642	27-Nov-2018	06-Dec-2018		
70-5-0700-7420	002073			Electricity				-2.80	
70-5-0700-7420	002073			Electricity				40.01	
200141682009-I NOV/18 HYDRO - ALBUNA WATER TOWER					652	30-Nov-2018	13-Dec-2018		
70-5-0700-7420	002073			Electricity				-15.60	
70-5-0700-7420	002073			Electricity				220.21	
200141683019-I NOV/18 HYDRO - METER#3					642	29-Nov-2018	06-Dec-2018		
70-5-0700-7420	002073			Electricity				-2.57	
70-5-0700-7420	002073			Electricity				36.41	
200141683120-I NOV/18 HYDRO - METER#5					652	30-Nov-2018	13-Dec-2018		
70-5-0700-7420	002073			Electricity				-2.72	
70-5-0700-7420	002073			Electricity				38.42	
200141683423-I NOV/18 HYDRO - METER#6					642	29-Nov-2018	06-Dec-2018		
70-5-0700-7420	002073			Electricity				-2.58	
70-5-0700-7420	002073			Electricity				36.46	
200141683524-I NOV/18 HYDRO - METER#8					642	27-Nov-2018	06-Dec-2018		
70-5-0700-7420	002073			Electricity				-2.49	
70-5-0700-7420	002073			Electricity				35.56	
200141683726-I NOV/18 HYDRO - METER#15					642	23-Nov-2018	06-Dec-2018		
70-5-0700-7420	002073			Electricity				-2.40	
70-5-0700-7420	002073			Electricity				33.91	



Vendor : 0011450 To PT00000163  
 Batch : All  
 Department : All

EFT Paid Date : 03-Dec-2018 To 13-Dec-2018  
 Bank : 07 To 08  
 Class : All

Vendor Code	Vendor Name	Description			Batch	Inv Date	Inv Due Date	Amount
Invoice No.		CC1	CC2	CC3	GL Account Name			
G.L. Account								
<b>DEPARTMENT 0700</b>		Union Water System						
200141687362-I	NOV/18 HYDRO - METER#22					642	27-Nov-2018	06-Dec-2018
70-5-0700-7420		002073			Electricity			-2.28
70-5-0700-7420		002073			Electricity			32.61
200141687766-I	NOV/18 HYDRO - METER#29					642	27-Nov-2018	06-Dec-2018
70-5-0700-7420		002073			Electricity			-2.75
70-5-0700-7420		002073			Electricity			39.31
200141687867-I	NOV/18 HYDRO - METER#24					642	27-Nov-2018	06-Dec-2018
70-5-0700-7420		002073			Electricity			-2.28
70-5-0700-7420		002073			Electricity			32.59
200141690190-I	NOV/18 HYDRO - METER#26					642	26-Nov-2018	06-Dec-2018
70-5-0700-7420		002073			Electricity			-3.58
70-5-0700-7420		002073			Electricity			50.48
200152134969-I	NOV/18 HYDRO - METER#17					652	06-Dec-2018	13-Dec-2018
70-5-0700-7420		002073			Electricity			-2.58
70-5-0700-7420		002073			Electricity			36.37
200220161473-I	NOV/18 HYDRO - METER#14					642	22-Nov-2018	06-Dec-2018
70-5-0700-7420		002073			Electricity			-2.48
70-5-0700-7420		002073			Electricity			35.00
<b>190185</b>	<b>SGS CANADA INC. ENVIRONMENTAL SERVICES</b>							
11202165	WATER QUALITY STUDIES CORROSION-LAKESHORE					647	29-Nov-2018	13-Dec-2018
70-5-0700-7989		002075			Operational Programs & Studies			98.31
11202211	WATER QUALITY STUDIES CORROSION-ESSEX					647	29-Nov-2018	13-Dec-2018
70-5-0700-7989		002075			Operational Programs & Studies			98.31
11202234	WATER QUALITY STUDIES CORROSION-LEAMINGTON					647	29-Nov-2018	13-Dec-2018
70-5-0700-7989		002075			Operational Programs & Studies			98.31
11202352	WATER QUALITY STUDIES CORROSION-UWSS					647	29-Nov-2018	13-Dec-2018
70-5-0700-7989		002075			Operational Programs & Studies			1,143.56
<b>210120</b>	<b>UNION GAS LTD</b>							
1929770208308	12563.865M3 GAS - WATER TREATMENT PLANT					642	21-Nov-2018	06-Dec-2018
70-5-0700-7410		002073			Gas			3,265.99
1929770217397	542.202M3 GAS - LOW LIFT					642	23-Nov-2018	06-Dec-2018
70-5-0700-7410		002073			Gas			163.62
<b>Department Totals :</b>								<b>79,934.16</b>



**Vendor :** 0011450 To PT00000163  
**Batch :** All  
**Department :** All

**Cheque Print Date :** 19-Dec-2018 To 21-Dec-2018  
**Bank :** 07 To 08  
**Class :** All

Vendor Invoice	Vendor Name Description				Batch Invc Date	Invc Due Date	Amount
G.L. Account	CC1 CC2 CC3 GL Account Name						
<b>DEPARTMENT 0700</b>	Union Water System						
<b>010103</b>	<b>ASSOCIATED ENGINEERING (ONT) LTD</b>						
525064	SCADA UPGRADES - DEC7				670 11-Dec-2018	19-Dec-2018	
70-7-0700-8780				SCADA System			2,375.94
525068	CO2 PH ADJUSTMENT SYSTEM				670 11-Dec-2018	19-Dec-2018	
70-7-0700-8745	700200			Treatment Plant			9,681.84
<b>020120</b>	<b>BELL MOBILITY CELLULAR</b>						
514877178-DE	MONTHLY CELL PHONE CHARGES				669 01-Dec-2018	19-Dec-2018	
70-5-0700-7110	002070 002083			Telecommunications Usage			21.96
<b>997507</b>	<b>JDC.CA INC</b>						
10045	KWT/EWT/V9/V26 COMMUNICATIONS UPGRADE				670 30-Nov-2018	19-Dec-2018	
70-7-0700-8775				Communication System			5,256.66
10047	LOW LIFT COMMUNICATION UPGRADES				670 30-Nov-2018	19-Dec-2018	
70-7-0700-8775				Communication System			384.37
<b>230089</b>	<b>WATSON &amp; ASSOCIATES ECONOMISTS LTD</b>						
24784	WATER RATE STUDY - FIN. PLAN OREG453/07				670 30-Nov-2018	19-Dec-2018	
70-5-0700-7950	002070			Professional Services			11,885.42
<b>Department Totals :</b>							<b>29,606.19</b>



Vendor : 0011450 To PT00000164

Batch : All

Department : All

Manual Paid Date : 02-Jan-2019 To 11-Jan-2019

Bank : 07 To 08

Class : All

Vendor	Vendor Name				Batch Invc Date	Invc Due Date	Amount
Invoice No.	Description						
G.L. Account	CC1	CC2	CC3	GL Account Name			
<b>DEPARTMENT 0700</b>	Union Water System						
<b>090053</b>	<b>INNOVYZE</b>						
181259917	2019 INFOWATER RENEWAL				3 12-Dec-2018	04-Jan-2019	
70-5-0700-7260	002070	002131		Software Licensing & Support			4,972.50
<b>Department Total :</b>							<b>4,972.50</b>



**Vendor :** 0011450 To PT00000164  
**Batch :** All  
**Department :** All

**Cheque Print Date :** 02-Jan-2019 To 11-Jan-2019  
**Bank :** 07 To 08  
**Class :** All

Vendor Invoice	Vendor Name Description				GL Account Name	Batch Invc Date	Invc Due Date	Amount	
G.L. Account	CC1	CC2	CC3						
<b>DEPARTMENT 0700 Union Water System</b>									
<b>020120 BELL MOBILITY CELLULAR</b>									
514877178-JAN	MONTHLY CELL PHONE CHARGES					14	01-Jan-2019	10-Jan-2019	
70-5-0700-7110	002070	002083		Telecommunications Usage				66.73	
<b>200348 CORPORATION OF THE TOWN OF KINGSVILLE</b>									
DEC-18	PERMIT - 1615 UNION AVE					691	21-Dec-2018	04-Jan-2019	
70-7-0700-8745	700200			Treatment Plant				1,552.50	
<b>030458 CORRPRO CANADA INC</b>									
536231	RECTIFIER - LEAM WATER TOWER					699	27-Dec-2018	10-Jan-2019	
70-7-0700-8715				Leamington Water Tower				3,180.95	
<b>050003 E.L.K. ENERGY INC</b>									
40010915-DEC	995KWH - ESSEX WATER TOWER					699	31-Dec-2018	10-Jan-2019	
70-5-0700-7420	002073			Electricity				-12.17	
70-5-0700-7420	002073			Electricity				171.97	
40047150-DEC	126KWH - METER#9					699	31-Dec-2018	10-Jan-2019	
70-5-0700-7420	002073			Electricity				-2.71	
70-5-0700-7420	002073			Electricity				38.26	
51976611-DEC	DEC/18 HYDRO - KINGSVILLE WATER TOWER					699	31-Dec-2018	10-Jan-2019	
70-5-0700-7420	002073			Electricity				-18.36	
70-5-0700-7420	002073			Electricity				259.46	
90006300-DEC	16080KWH - COTTAM BOOSTER STATION					699	31-Dec-2018	10-Jan-2019	
70-5-0700-7420	002073			Electricity				3,282.23	
<b>230698 WONDERWARE CANADA EAST</b>									
00418341	SOFTWARE - SCADA UPGRADES					699	31-Dec-2018	10-Jan-2019	
70-7-0700-8780				SCADA System				111,465.46	
<b>Department Totals :</b>									<b>119,984.32</b>



Vendor : 0011450 To PT00000164  
 Batch : All  
 Department : All

EFT Paid Date : 02-Jan-2019 To 11-Jan-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</b>	Union Water System								
<b>030405</b>	<b>COLLABRIA</b>								
48075	AMCTO - MAFP - UNIT 2				5	12-Dec-2018	07-Jan-2019		
70-5-0700-7040	002070			Training				406.80	
CHUCKS-NOV1	BUSINESS LUNCH - NOV16				692	16-Nov-2018	07-Jan-2019		
70-5-0700-7052	002070			Meeting Expenses				16.76	
ZEHRS-NOV21	SUPPLIES - MEETING NOV21				692	21-Nov-2018	07-Jan-2019		
70-5-0700-7052	002070			Meeting Expenses				38.33	
<b>050160</b>	<b>ESRI CANADA LIMITED</b>								
90129227	2019 ESRI MTCE				2	30-Nov-2018	04-Jan-2019		
70-5-0700-7260	002070	002131		Software Licensing & Support				1,841.90	
<b>050195</b>	<b>ESSEX POWERLINES CORPORATION</b>								
220651-DEC18	34KWH - METER#4				695	19-Dec-2018	10-Jan-2019		
70-5-0700-7420	002073			Electricity				-3.34	
70-5-0700-7420	002073			Electricity				47.25	
<b>080250</b>	<b>HYDRO ONE NETWORKS INC</b>								
200141680894-I	DEC/18 HYDRO - LEAM WATER TOWER				695	28-Dec-2018	10-Jan-2019		
70-5-0700-7420	002073			Electricity				-33.89	
70-5-0700-7420	002073			Electricity				478.67	
200141681706-I	DEC/18 HYDRO - METE#2				695	27-Dec-2018	10-Jan-2019		
70-5-0700-7420	002073			Electricity				-3.43	
70-5-0700-7420	002073			Electricity				48.44	
200141682009-I	DEC/18 HYDRO - ALBUNA WATER TOWER				695	31-Dec-2018	10-Jan-2019		
70-5-0700-7420	002073			Electricity				-89.46	
70-5-0700-7420	002073			Electricity				1,263.69	
200141683019-I	DEC/18 HYDRO - METER#3				695	28-Dec-2018	10-Jan-2019		
70-5-0700-7420	002073			Electricity				-3.04	
70-5-0700-7420	002073			Electricity				42.92	
200141683120-I	DEC/18 HYDRO - METER#5				695	31-Dec-2018	10-Jan-2019		
70-5-0700-7420	002073			Electricity				-3.12	
70-5-0700-7420	002073			Electricity				44.09	
200141683423-I	DEC/18 HYDRO - METER#6				695	28-Dec-2018	10-Jan-2019		
70-5-0700-7420	002073			Electricity				-3.02	
70-5-0700-7420	002073			Electricity				42.60	
200141683524-I	DEC/18 HYDRO - METER#8				695	27-Dec-2018	10-Jan-2019		
70-5-0700-7420	002073			Electricity				-3.05	
70-5-0700-7420	002073			Electricity				43.10	
200141683726-I	DEC/18 HYDRO - METER#15				695	21-Dec-2018	10-Jan-2019		
70-5-0700-7420	002073			Electricity				-2.69	
70-5-0700-7420	002073			Electricity				38.03	
200141687362-I	DEC/18 HYDRO - METER#22				695	27-Dec-2018	10-Jan-2019		
70-5-0700-7420	002073			Electricity				-2.28	
70-5-0700-7420	002073			Electricity				32.15	
200141687766-I	DEC/18 HYDRO - METER#29				695	27-Dec-2018	10-Jan-2019		
70-5-0700-7420	002073			Electricity				-3.02	
70-5-0700-7420	002073			Electricity				42.66	
200141687867-I	DEC/18 HYDRO - METER#24				695	27-Dec-2018	10-Jan-2019		
70-5-0700-7420	002073			Electricity				-2.28	
70-5-0700-7420	002073			Electricity				32.15	
200141690190-I	DEC/18 HYDRO - METER#26				695	26-Dec-2018	10-Jan-2019		
70-5-0700-7420	002073			Electricity				-4.41	
70-5-0700-7420	002073			Electricity				62.20	



Vendor : 0011450 To PT00000164  
 Batch : All  
 Department : All

EFT Paid Date : 02-Jan-2019 To 11-Jan-2019  
 Bank : 07 To 08  
 Class : All

Vendor Code	Vendor Name	Description			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							
200220161473-I	DEC/18 HYDRO - METER#14				695	20-Dec-2018	10-Jan-2019	
70-5-0700-7420	002073		Electricity				-2.58	
70-5-0700-7420	002073		Electricity				36.45	
<b>160530</b>	<b>PRICewaterHOUSE COOPERS LLP</b>							
TR139100413	RESTRUCTURING CONSULTANT - DEC/18				695	31-Dec-2018	10-Jan-2019	
70-5-0700-7950	002070		Professional Services				9,459.38	
<b>190185</b>	<b>SGS CANADA INC. ENVIRONMENTAL SERVICES</b>							
11209253	WATER QUALITY STUDIES CORROSION-LEAMINGTON				695	27-Dec-2018	10-Jan-2019	
70-5-0700-7989	002075		Operational Programs & Studies				98.31	
11209259	WATER QUALITY STUDIES CORROSION-ESSEX				695	27-Dec-2018	10-Jan-2019	
70-5-0700-7989	002075		Operational Programs & Studies				98.31	
11209274	WATER QUALITY STUDIES CORROSION-LAKESHORE				695	27-Dec-2018	10-Jan-2019	
70-5-0700-7989	002075		Operational Programs & Studies				98.31	
11209276	WATER QUALITY STUDIES CORROSION-KINGSVILLE				695	27-Dec-2018	10-Jan-2019	
70-5-0700-7989	002075		Operational Programs & Studies				196.62	
11209304	WATER QUALITY STUDIES CORROSION-UWSS				695	27-Dec-2018	10-Jan-2019	
70-5-0700-7989	002075		Operational Programs & Studies				621.50	
<b>210120</b>	<b>UNION GAS LTD</b>							
1929770208308	16181.377M3 GAS - RUTHVEN WATER TREATMENT PLANT				695	19-Dec-2018	10-Jan-2019	
70-5-0700-7410	002073		Gas				4,157.91	
1929770217397	1762.161M3 GAS - LOW LIFT				695	21-Dec-2018	10-Jan-2019	
70-5-0700-7410	002073		Gas				471.88	
<b>Department Totals :</b>							<b>19,600.80</b>	



Vendor : 0011450 To PT00000163  
 Batch : All  
 Department : All

EFT Paid Date : 19-Dec-2018 To 21-Dec-2018  
 Bank : 07 To 08  
 Class : All

Vendor Code	Vendor Name	Description			Batch	Inv Date	Inv Due Date	Amount
Invoice No.		CC1	CC2	CC3	GL Account Name			
G.L. Account								
<b>DEPARTMENT 0700</b>	Union Water System							
<b>050230</b>	<b>ESSEX-WINDSOR SOLID WASTE AUTHORITY</b>							
27305 - 5030 O	RESIDUAL MGMT 2018 LANDFILL FEES					667	31-Oct-2018	20-Dec-2018
70-5-0700-8133		002074			Residuals Ponds Maintenance			20,052.40
<b>080250</b>	<b>HYDRO ONE NETWORKS INC</b>							
200208899066-I	NOV/18 HYDRO - METER#16					667	12-Dec-2018	20-Dec-2018
70-5-0700-7420		002073			Electricity			-9.44
70-5-0700-7420		002073			Electricity			133.31
<b>160530</b>	<b>PRICEWATERHOUSE COOPERS LLP</b>							
TR138197709	RESTRUCTURING CONSULTANT - FINANCIAL					667	06-Dec-2018	20-Dec-2018
70-5-0700-7950		002070			Professional Services			14,599.88
<b>210120</b>	<b>UNION GAS LTD</b>							
1929770177678	919.264M3 GAS - COTTAM BOOSTER STATION					667	10-Dec-2018	20-Dec-2018
70-5-0700-7410		002073			Gas			258.58
<b>Department Totals :</b>								<b>35,034.73</b>