

THE UNION WATER SUPPLY SYSTEM

JOINT BOARD OF MANAGEMENT

AGENDA

WEDNESDAY, DECEMBER 21, 2016

COMMENCING AT 9:00 AM

IN THE COMMUNITY ROOM - KINGSVILLE ARENA

(A) Call to Order:

(B) Disclosures of Pecuniary Interest:

(C) Adoption of Minutes:

Minutes of the meeting of the Union Water Supply System Joint Board of Management Meeting held Wednesday, November 16, 2016

Pages 3 - 8

(D) Business Arising Out of the Minutes:

(E) Items for Consideration:

1. UW/32/16 - Status Update of UWSS Operations & Maintenance Activities and Capital Works to December 16, 2016, dated December 16, 2016

Pages 9 - 10

2. UW/33/16 - Draft 2017 UWSS Operations and Capital Budget Report dated December 16, 2016

Pages 11 - 23 - Draft 2016 UWSS Budget Report

Pages 24 - 29 - 2017 UWSS Draft Operations & Capital Budget Tables and Details

Pages 30 - 33 - UWSS 6-Year Capital Plan Tables and Details

3. Union Water Supply System Joint Board of Management meeting dates for 2017

Page 34

4. UW/34/16 - Payments from November 12 to December 16, 2016, dated December 16, 2016

Pages 35 - 43

(F) New Business:

(G) Adjournment:

(H) Date of Next Meeting:

/kmj

**THE UNION WATER SUPPLY SYSTEM
JOINT BOARD OF MANAGEMENT**

MINUTES OF MEETING

HELD NOVEMBER 16, 2016 AT 9 AM

IN KINGSVILLE COMMUNITY ROOM - KINGSVILLE ARENA

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

Members Absent: Councillor Dunn - Leamington
Councillor Diemer - Lakeshore

Staff Present: Shannon Belleau - Leamington
Chris Nepszy, Andy Graf - Essex

OCWA Staff
Present: Dale Dillen, Ken Penney

Call to Order: 9:03 am

Disclosures of Pecuniary Interest: None

Adoption of Council Minutes:

No. UW-50-16

Moved by: Mayor Paterson

Seconded by: John Jacobs

That Minutes of the UWSS Joint Board of Management meeting of Wednesday, October 19, 2016 be received.

Carried

Business Arising Out of the Minutes:

The Manager notes that during the last meeting there was a brief discussion regarding the Federal Clean Water and Waste Water Fund and hopes that UWSS could quickly apply for some grant monies. The Manager advises members that he did follow up on this matter and that the UWSS is not eligible for the grant money as any application would have to go through the municipalities. Realistically no grants monies will be available to UWSS unless the structure of the UWSS is amended.

Report UW/29/16 Re: Status Update of the UWSS Operations & Maintenance Activities and Capital Works to November 10, 2016, dated November 10, 2016

The Manager informs members that the use of the new coagulant Hyperion +ION had been discontinued on October 24th and UWSS is now back on DeIPAC 2020, with MOECC being informed of the change. He further explains that he has also been in contact with representatives from Windsor Regional Hospital (WRH) with their concerns over higher aluminum levels in our water. Particularly a concern for home dialysis patients. He notes that UWSS is not trying to change the process for WRH, but rather work with them to determine a good solution for those patients. He explains that higher aluminum levels requires dialysis patients to attend the local hospital for treatment rather than in home. He confirms that UWSS meets all the requirements under the SDWA.

The Board asks approximately how many people are on home dialysis and whether or not an in home purification system would solve their issues. The Manager explains that there are approximately 50 patients and further that the type of purification system required would be very costly to the patients. There is a further discussion on the new coagulant regarding the temperature of the water and the late season warm temperatures this area is experiencing. The Manager explains that the temperature of the water is now low enough that the original coagulant is working well.

The Manager continues the review of his report explaining that Watech services will be attending to reservoir #2 to repair expansion joints. He notes that OCWA staff Management as well as UWSS staff met on October 24th to meet their yearly obligation of having a Management Review. This is part of the DWQMS and gives both sides an opportunity to discuss operational issues and improvements.

He notes that a new concrete pad outside the maintenance shop has now been poured; Clarifiers #1 and #4 have been taken out of service for winter cleaning; a new valve actuator has been installed on the raw water line #2; Low Lift wells #1 and #2 were drained and cleaned; the removal of the microstrainer #1 is almost complete and the work required to cover the floor cavity will be completed in January 2017; and finally he notes that Filters #2 and #4 will be out of service later in November.

The Manager then discusses the Water Quality Masterplan (WQMP) noting that Associated Engineering (AE) has conducted a workshop with a second one planned on December 7th. He is hoping to receive some pricing options for upgrades that might be necessary to the WTP. He also confirms that Summa Engineering has been attending the WTP to begin the review process of the SCADA system.

The Manager notes the flows are still up over last year and the four year average, but they have dropped off to their regular patterns.

The Board asks if the Manager sees larger costs in the near future due to all of the studies and investigations that have been taking place. The Manager explains that he will discuss further when his budget report is discussed, but that there will be substantial costs over the next ten (10) years.

No. UW-51-16

Moved by: Thomas Neufeld

Seconded by: Mayor Paterson

That report UW/29/16 dated November 10, 2016 re: Status Update of the UWSS Operations & Maintenance Activities and Capital Works to November 10, 2016 is received.

Carried (UW/29/16)

Report UW/30/16 dated November 10, 2016 re: UWSS 2017 Preliminary Operational and Capital Budget

The Manager reviews his report with Board members. He provides updated sheets (pages 11 and 12 in the agenda package) to board members. Initially, the Manager reviews the 2016 budget and the forecasted income which is expected to be approximately \$550,000 above the initial 2016 budget. He explains that going forward for 2017 he will be using an average of the flows over 5 years, as he feels that the 2016 flows might be an anomaly.

The Manager turns to the capital budget and reminds members that there had been a board approved revision to the 2016 budget in July; removing the lagoon cleanout, as well as the Clarifier painting. He continues his explanation by indicating that the carbon scrubber project will be pushed off until 2017.

The Manager asks member to turn to the Budget Summary page, while he continues noting that UWSS is able to input many of the fixed prices, such as the cost of the OCWA Contract, Sunlife Debt repayment and several others. He has increased the budget for electricity as it appears that each year there have been notable increases in the rates.

The Manager notes that at the end of this year any surplus income will be transferred over to the reserves. The savings will give aid to the large capital program that is anticipated over the next ten (10) years.

The Board asks the Manager if there will be higher costs by moving several projects into 2017. The Manager indicates that there could be slightly higher costs, but reminds members that maintenance is always taking place and therefore the items were more proactive in nature than reactive.

The Board again asks if there has been any thought or advancement on the idea of cogeneration. The Manager indicates that the government has not moved forward with any applications for co-generation and at this point it is not looking like a possibility. The Manager has been in contact with OCWA's energy consultant and is hopeful that there are other possibilities to aid UWSS with energy management.

There is a brief discussion on UWSS's energy invoices and whether UWSS is using more or less than in previous years. The Manager indicates that UWSS is using slightly less power, but costs are continuing to go up. The Manager vows to continue improving in this area.

The Manager then returns to his budget discussion. He indicates that he is anticipating a rate increase in the wholesale water rate, as well as, the rate for Highbury Canco, for the 2017 budget. He then lists several capital items necessary in 2017, such as:

- Rehabilitation of the Essex Water Tower, \$850,000, as the last two inspections indicate that there is work that needs to be done. He indicates that this is a preliminary figure.
- Pump Upgrades
- Carbon Scrubber
- Microstrainer Floor - moved from 2016 Budget
- Filter Meter Replacement Program continues, finishing in 2017
- Filters #5 and #7 require media replacement, hasn't been done since 1994 and beyond life expectancy,
- Turbidity Meter Replacement Program will continue
- Chlorine Analyzers Replacement Program finishes in 2017
- High Lift Pump Rehabilitation
- Window Replacement Program finishes in 2017
- Front foyer upgrades
- Asphalt sealing at three (3) locations: Low Lift, WTP and Cottam Booster Station
- Cleaning out south waste lagoon as well as hauling waste away
- Security system upgrades to include a swipe card
- SCADA system upgrades, \$250,000 has been earmarked for this project
- Communications systems upgrades to provide billing meter information directly to the plant
- Distribution system valves and master meters.

The Manager notes that his budget is coming in at \$2.18 million, studies and programs is coming in at \$345,000 and further that he has set aside \$75,000 for the restructuring discussion/governance of the UWSS. He also discusses a few of the larger items over the next ten (10) years, such as the watermain from the WTP to Cottam, possible upgrades to the disinfection process as well as the possible restructuring of the UWSS. As well he informs members of the board that he is hoping to have a presentation from the legal team to discuss a business case to move to a municipal service board under the Municipal Act.

Finally the Manager indicates that he has been reviewing UWSS' investment funds; He indicates that the UWSS investments are currently in various diversified funds offered by LAS' One Fund program. The Manager is concerned that some of these investments, specifically corporate bonds and equity funds might be too risky for the existing market and possible market adjustments next year in the US. The Manager indicates that he has been in discussion with WFCU and that they are offering a good solution for placing investments with them. The Manager is of the opinion that the risky funds should be moved and asks for direction from the UWSS Board. There is some discussion back and

forth and the Board agrees that the risky investments should be moved to more secure investments.

No. UW-52-16

Moved by: Larry Patterson

Seconded by: Mayor McDermott

That the UWSS General Manager seeks proposals from financial institutions with a strong local presence in regards to investment of UWSS reserve funds; and that the UWSS General Manager is given authority to relocate UWSS reserve funds to a financial institution that would provide the best balance of investment return and investment security for the UWSS.

Carried

The Manager finishes his report by noting that UWSS is still looking at a surplus this year and possibility next year. He will also be presenting a rate increase over the next several years as there is a need to put money into reserves to cover the larger items that will be necessary over the next ten (10) years.

No. UW-53-16

Moved by: Mayor Santos

Seconded by: John Jacobs

That report UW/30/16 dated November 10, 2016 re: UWSS 2017 Preliminary Operational and Capital Budget is received.

Carried (UW/30/16)

Report UW/31/16 dated November 16, 2016 re: Payments from October 14 to November 10, 2016**No. UW-54-16**

Moved by: Mayor Paterson

Seconded by: Tony Gaffan

That report UW/31/16 dated November 16, 2016 re: Payments from October 14 to November 10, 2016 is received.

Carried (UW/31/16)

New Business

Mayor McDermott asks the Manager for clarification regarding the possibility of UWSS becoming a Municipal Services Corporation. The Manager explains that he will be meeting with the legal team and then in the New Year that team will be presenting a business case to demonstrate UWSS's options. Then the Board can choose to move ahead or not.

Adjournment:**No. UW-55-16**

Moved by: Mayor Paterson

Seconded by: Thomas Neufeld

That the meeting adjourn at 10:06 am.

Carried

Date of Next Meeting: Wednesday, December 21, 2016 at 9:00 am, Kingsville Community Room, Kingsville Arena

/kmj

UW/32/16

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

From: Rodney Bouchard, Union Water Manager

Date: December 16, 2016

Re: Status Update of UWSS Operations & Maintenance Activities and Capital Works to December 16, 2016



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. Watech services started repairs on reservoir #2 expansion joints on December 5th. The work is expected to be completed the week of December 19th, 2016.
3. A new control valve (Rotork Actuator) is being installed to control flow to Clarifier #2. Once this is operational and Clarifier #2 is back online, Clarifier #3 will come off line for the season and the annual maintenance will be conducted.
4. The south settling pond was taken out of service during the week of December 5th, 2016. This settling pond will be allowed to freeze and dry out until it is ready for clean out next summer.
5. A new actuator for the solids blow off operation was replaced in Clarifier #1.
6. The new portable, trailer-mounted back-up generator was delivered on November 30th. Electrical installation for the battery charger and block heater has been installed. Phasor and the manufacture of the generator were on site for commissioning and training on Wednesday Dec 7th.

Re: Status Update of UWSS Operations & Maintenance Activities and Capital Works
to December 16, 2015

Comparative Flows for 2012 through 2016 in Millions of Imperial Gallons (for the period
1 January to December 15, 2016)

	2012	2013	2014	2015	2016
Flow to Date (MG)	3372.24	3043.46	3166.35	3082.56	3291.92
Max Day (MGD)	17.94	15.30	15.70	15.36	16.75
Min Day (MGD)	4.37	4.65	4.19	3.79	4.29
Average Day (MGD)	9.63	8.72	9.07	8.83	9.41
No of Days	350	349	349	349	350

Flows to date are up 209.36 MIG or 6.79% from last year. The 2016 flows to date are up 3.97% 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

rb/kmj

Filename: t:\union wtr\reports to board\2016\uw32-16 operations report for december 2016.docx

UW/33/16

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

FROM: RODNEY BOUCHARD, UNION WATER MANAGER

DATE: DECEMBER 15, 2016

RE: PROPOSED 2017 UWSS OPERATIONS AND CAPITAL BUDGET
REPORT



RECOMMENDATION

That the Union Water Supply System Joint Board of Management (UWSS Board) adopts the Draft 2017 Operational and Capital Budget for the Union Water Supply System;

And further, that the UWSS Board endorses an increase of \$0.05 per thousand gallons (\$0.0109 per cubic metre) for UWSS wholesale Rate 1 from \$2.67 per thousand gallons (\$0.5868 per cubic metre) to \$2.72 per thousand gallons (\$0.5978 per cubic metre) to be put into effect on April 1, 2017.

And further, that the UWSS Board endorses an increase of \$0.05 per 1000 gallons (\$0.0109/m³) is proposed for the Highbury Canco preferred rate. The new proposed Highbury Canco rate would be \$2.00 per 1000 gallons (\$0.4395/m³) to take effect on April 1, 2017.

REPORT HIGHLIGHTS

- Potable water demand from UWSS is anticipated to be approximately 3,200,000,000 imperial gallons (14,545,450 m³) for 2017. This is based on the average annual demand for the previous 4 years.
- UWSS Revenue for 2017 is estimated at \$8,841,000.
- Operational and Debt Service Expenditures for 2017 are estimated at \$7,043,000. This represents a 4.5% increase in expenditures as compared to 2016. This increase is mainly attributed to anticipated increases in electrical costs;
- 2016 Revenue versus Operational and Debt Service Expenditures are anticipated to result in a surplus of approximately \$1,798,000 for 2017 Fiscal Year;
- A Capital Program of \$2,895,000 is proposed for 2017. This includes large expenditures for Essex Water Re-coating (\$850,000) and complete upgrade of SCADA system (\$1,250,000).
- The proposed Capital Program for 2017 will result in a budgeted net deficit of **\$1,088,000** for 2017 fiscal year. The deficit will be funded using UWSS Reserves.
- An increase of \$0.05 per 1000 gallons (\$0.0109/m³) is proposed for the UWSS Wholesale Rate. The new proposed Rate 1 wholesale Rate would be \$2.72 per 1000 gallons (\$0.5978/m³) to take effect on April 1, 2017.
- An increase of \$0.05 per 1000 gallons (\$0.0109/m³) is proposed for the Highbury Canco preferred rate. The new proposed Highbury Canco rate would be \$2.00 per 1000 gallons (\$0.4395/m³) to take effect on April 1, 2017.

December 15, 2016 - UW/33/16

Re: Proposed 2017 UWSS Operations and Capital Budget

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 2016.

This proposed budget is being presented to the UWSS board for consideration. The proposed 2017 budget is outlined to provide details in regards to the following:

- Anticipated revenue for 2017 from wholesale of water to the partner municipalities;
- Anticipated operating expenditures for 2017 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 2017 for UWSS;
- Forecasted Operational Expenditures and Capital Works program for 2017-2022.

DISCUSSION:

The Proposed 2017 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;
- The large proposed capital budget for 2017 that includes projects with large expenditures such as the Essex Water Tower re-coating project and complete upgrades to the SCADA system.

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 2017. The total projected expenditures for 2017 is budgeted at approximately at \$7,043,000.

December 15, 2016 - UW/34/16

Re: Proposed 2017 UWSS Operations and Capital Budget

Fixed Expenditures

Fixed expenditures for the budget process include the OCWA Operations Budget, UWSS Administrative Budget, Electricity and heating costs, and Debt Service. The total fixed expenditures for 2017 is budgeted at \$6,808,000. The fixed expenditures consist of the following components:

OCWA Operations Budget:	\$2,766,240
UWSS Administrative Budget:	\$ 496,946
Electricity and Natural Gas:	<u>\$1,250,000</u>
<i>Total Operations, Administrative, Energy:</i>	<i>\$4,513,186</i>
Debt Service:	
Sunlife Debt (MFP Debt):	\$2,294,701
Woodslee Credit Union Loan:	\$0
OSIFA (municipal debentures):	\$0
Leamington Debt Repayment:	<u>\$0</u>
<i>Total Debt Service:</i>	<i>\$2,294,701</i>
Total Fixed Costs:	\$6,807,887

Programs and Studies

A number of Programs and Studies are included in the 2017 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 issues in larger distribution systems, etc.

December 15, 2016 - UW/34/16

Re: Proposed 2017 UWSS Operations and Capital Budget

For the 2017 budget year, \$235,000 has been allocated to Programs and Studies. The following studies are proposed or currently in place:

Water Demand/Usage: This work is being conducted with assistance from various partners (OCWA, Universities, Consultants, local municipalities) to evaluate water demand/usage from large users (e.g. Greenhouse operations) through real-time monitoring instrumentation. The data will be used to refine the UWSS' Master Plan and the UWSS hydraulic water model.

For the 2017 Budget year, UWSS' commitment to this project is \$25,000

Water Quality Investigations: The funds of \$35,000 allocated for water quality investigations includes a continuation of a partnership with Canadian Water Network for work associated with the assessment and evaluation of source water related impacts to the UWSS drinking water system. It also includes collection and evaluation of water quality data from UWSS to help support research of toxic algae effects on drinking water through studies with University of Toronto and University of Montreal

Dissolved Air Flotation (DAF) Pre-treatment Assessment: It is proposed that UWSS will undertake a review of the existing clarification process at the UWSS Treatment Plant for the proposed retrofit of existing clarifiers to Dissolved Air Flotation (DAF) clarification process. DAF water treatment technology is proven to be one of the most effective processes for removal of algae and also has the potential to significantly improve the clarification process at UWSS.

For the 2017 Budget year, \$125,000 has been allocated for this study.

Energy Audit/ Energy Optimization Assessment: It is proposed that UWSS will implement a full energy audit and energy optimization assessment of its Low lift and Treatment Plant facilities in 2017. The assessment will be designed to identify, plan, and implement energy related cost savings measures for UWSS facilities. It is noted that energy costs are the second largest annual expenditures incurred by UWSS. Expected energy usage at UWSS facilities, including electricity and natural gas heating, for 2017 (i.e. \$1,250,000) will account for approximately 18% of the 2017 budgeted fixed expenditures. It is anticipated that the results of this work will identify a number of energy use reduction opportunities and strategies that can be implemented at UWSS.

For the 2017 Budget year, \$50,000 has been allocated for these water quality studies. It should be noted that the Ontario SaveONEnergy program has grant funding available for undertaking energy reduction assessments and implementation of energy reduction strategies.

December 15, 2016 - UW/34/16

Re: Proposed 2017 UWSS Operations and Capital Budget

This study was scheduled to be completed in 2016; however, the study was put on hold until 2017 due to delays associated with grant funding approvals associated with this work.

Operating Expenditure Summary

Fixed Expenditures:	\$6,807,887
Programs and Studies:	<u>\$ 235,000</u>
Total Operating Expenditures for 2017:	\$7,042,887

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 2017 is \$8,841,000

Wholesale Water Revenue Summary

Wholesale water revenue is based on annual water usage by the 4 owner municipalities and the wholesale water rates. This also includes wholesale water revenue to Highbury CanCo, which started operations in late June 2014 at the former HJ Heinz Plant facility in Leamington, Ontario.

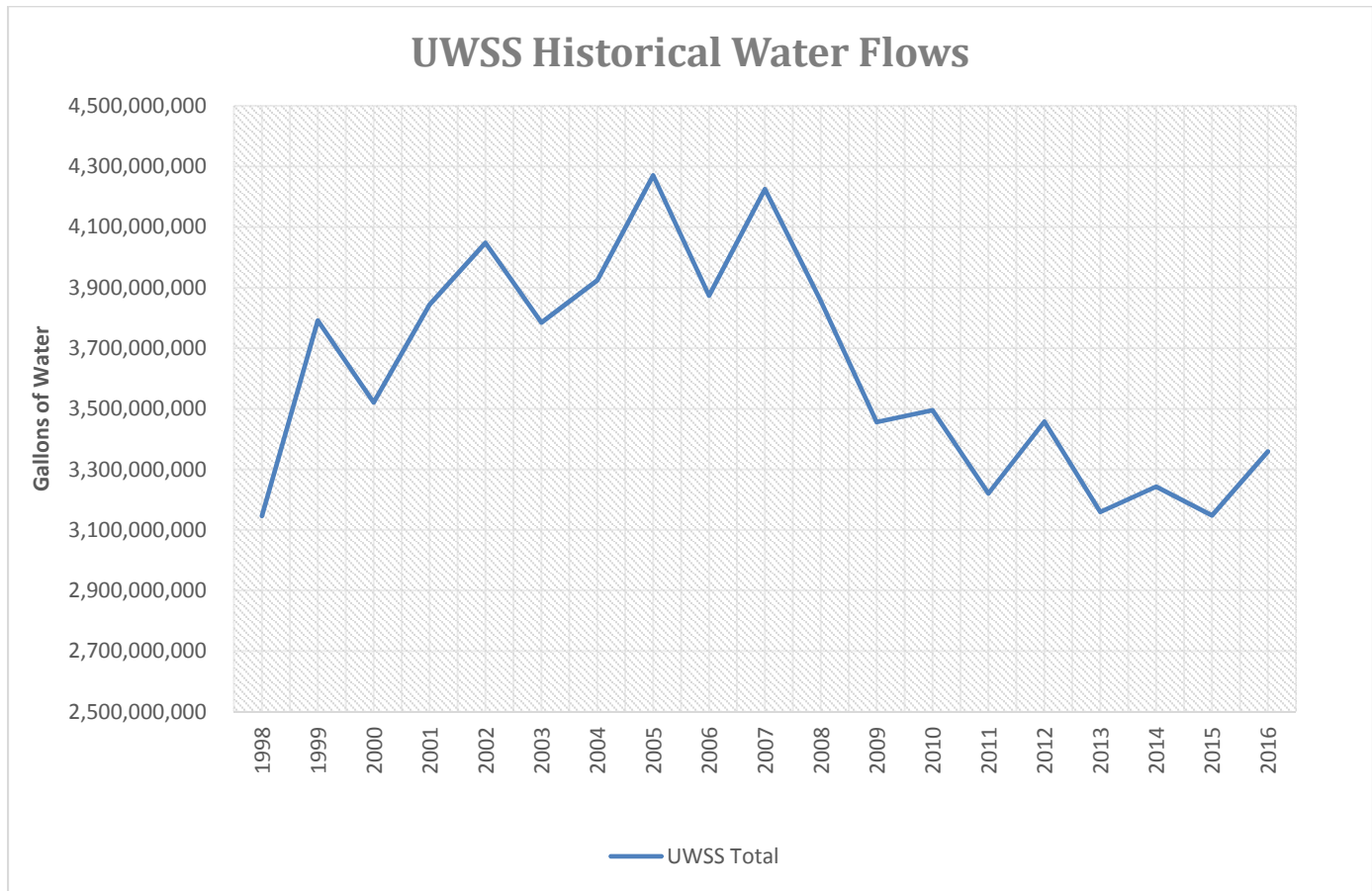
Water Usage

The projected water "usage" by municipal owners for 2017 is 3,200,000,000 imperial gallons (14,545,455 m³) of potable water. This usage estimate is based on the average water demand for the 4 previous years.

Figure 1 depicts the total UWSS water usage trend from 1998-2016.

Figure 2 depicts the water usage trend by each municipal partner from 1998-2016.

Figure 1



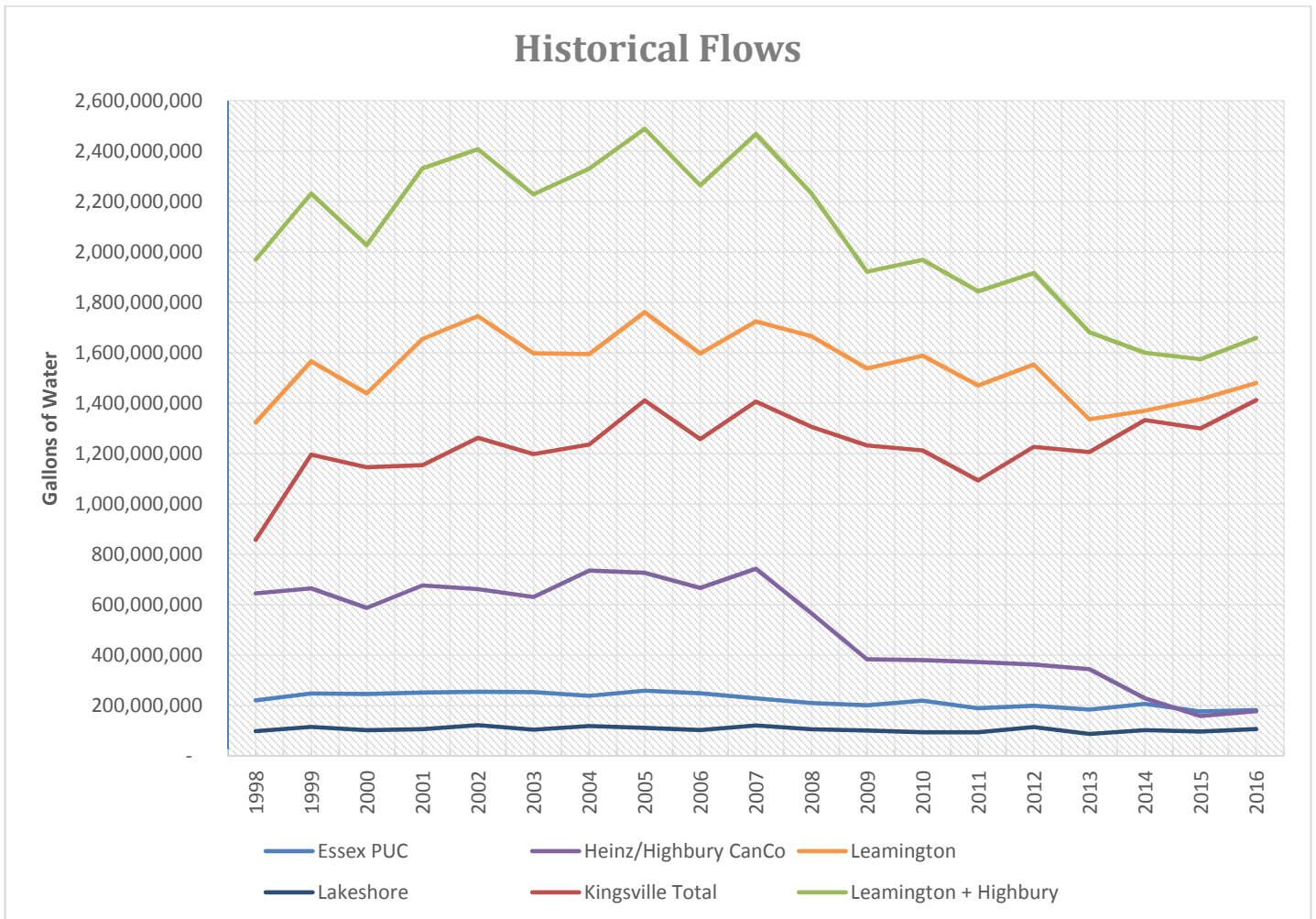
Wholesale Water Rates

For the 2017 budgeting process, it is proposed that an increase of \$0.05 per 1000 gallon (\$0.0109/m³) be applied to the UWSS wholesale rate and to the preferred rate provided to Highbury Canco. This would result in a 2017 UWSS wholesale rate of \$2.72 per 1000 gallons (\$0.5978/m³) and Highbury Canco preferred rate of \$2.00 per 1000 gallons (\$0.4395/m³). It is proposed that the increase for these rates be applied at the start of the 2nd quarter 2017, thus on April 1, 2017.

The following provides 2017 estimates for water rate revenue:

Municipal wholesale:	3,035,000,000 Imp. Gals @ \$2.72/1000 gals =	\$8,255,200
Highbury Canco:	165,000,000 Imp Gals @ \$2.00/1000 gals =	<u>\$330,000</u>
Total Water Rate Revenue Total:		\$8,585,200

Figure 2



Miscellaneous Revenue

Miscellaneous revenue includes income from investments and sundry income.

Investment (interest) income:	\$ 232,000
Sundry revenue:	<u>\$ 24,000</u>
Total Misc. Revenue:	\$ 256,000

Sundry revenue is revenue received from various sources such as lease of space on water towers for telecommunications equipment. The estimated sundry revenue for 2017 is \$24,000 and is roughly based on 2016 revenue.

Revenue Summary

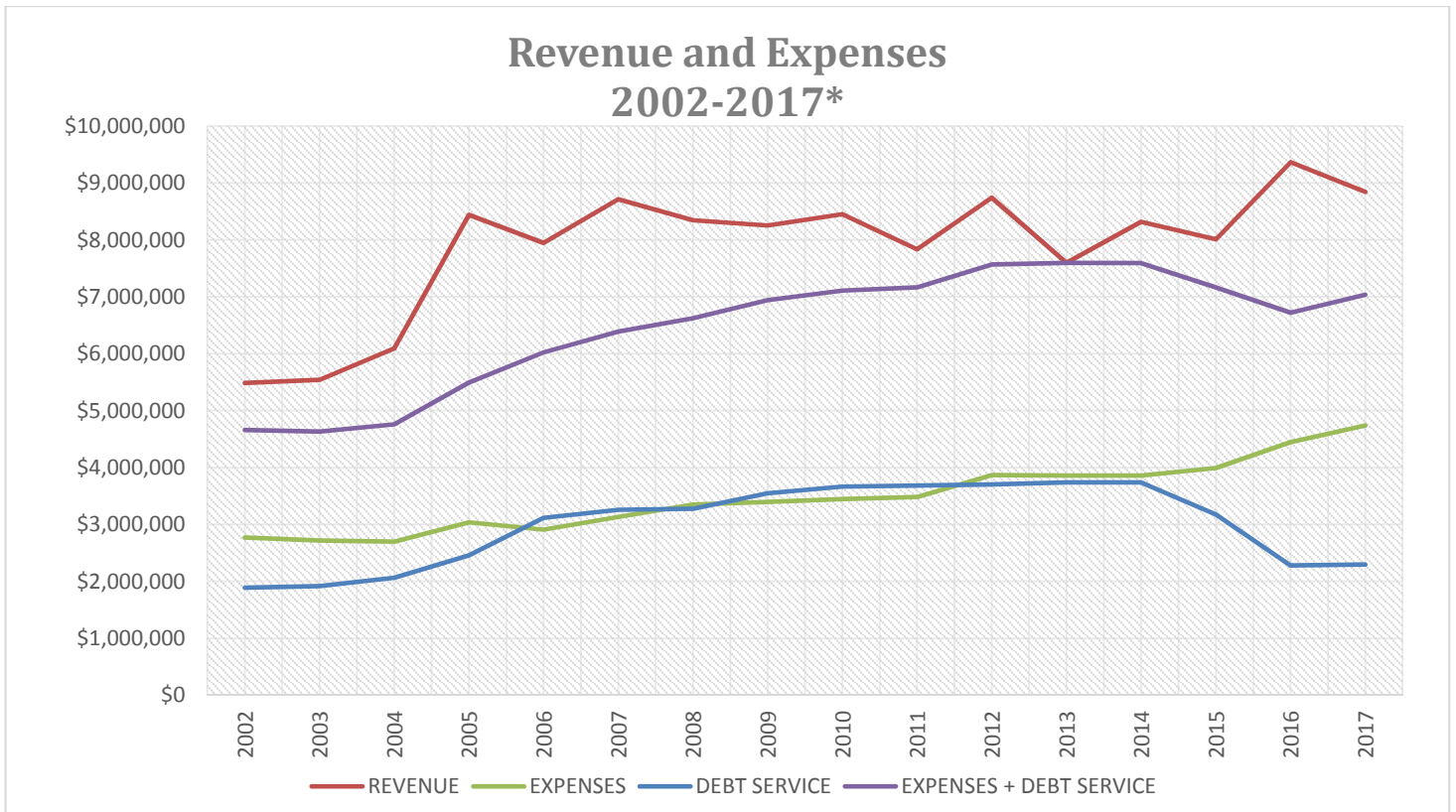
Wholesale Rate Revenue:	\$8,585,200
Miscellaneous Revenue :	<u>\$ 256,000</u>
Total Estimated Revenue for 2017:	\$8,841,200

REVENUE VERSUS OPERATING EXPENDITURES

A comparison of Revenue versus Expenditures for 2017 budget is as follows. It should be noted that the total estimated expenditures also include the proposed budget for operational Programs and Studies of \$235,000.

Total Estimated Revenue:	\$8,841,200
Total Estimated Expenditures:	<u>\$7,042,887</u>
Surplus/(Deficit):	\$1,798,313

Figure 3



December 15, 2016 - UW/34/16

Re: Proposed 2017 UWSS Operations and Capital Budget

CAPITAL PROGRAM

The proposed Capital Program for 2017 is budgeted at \$2,895,000. This includes major Capital Equipment Purchases (e.g. vehicles, heavy equipment) and major Capital Works.

Capital Works:

The following major capital works projects are proposed for 2017:

SCADA System Upgrade - New SCADA System:	\$1,250,000
Essex Water Tower Re-Coating:	\$ 850,000
Filter Media Replacement - Filters #5 & #7:	\$ 140,000
Residuals Lagoon Excavation - South Lagoon:	\$ 100,000
Lagoon Residuals Materials Management:	\$ 100,000
Front Foyer/Entrance Upgrades:	\$ 75,000
Distribution System Valves and Components:	\$ 60,000
Master Meter Replacements/Upgrades:	\$ 50,000
High Lift Pump #4 Rehabilitation:	\$ 45,000
Carbon Scrubber System Upgrade:	\$ 40,000
Low Lift Pump #5 Major Maintenance:	\$ 35,000
Security System Install:	\$ 30,000
Window Replacements-Treatment Plant (Year 3 of 3):	\$ 25,000
Turbidity Meter Upgrades (Year 3 of 3 year Program):	\$ 25,000
Chlorine Analyzer Replacements (Year 2 of 2yr Program):	\$ 20,000
Microstrainer Floors:	\$ 20,000
Filter Meter Upgrades (Year 2 of 3-year Program):	\$ 15,000
High Lift #1 Compressor Replacement:	<u>\$ 15,000</u>
Total Capital Works for 2017:	\$2,895,000

December 15, 2016 - UW/34/16

Re: Proposed 2017 UWSS Operations and Capital Budget

BUDGET SUMMARY

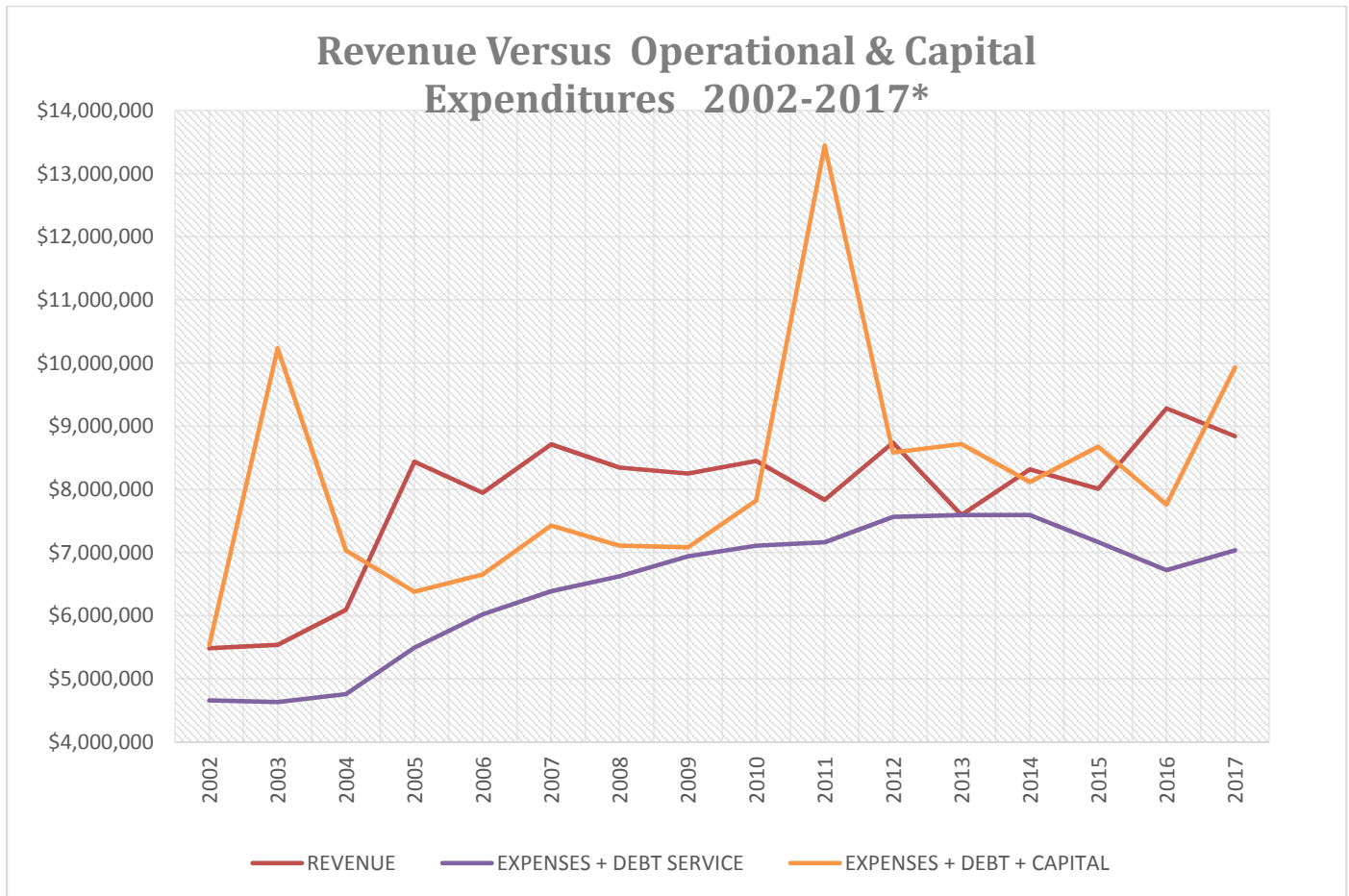
The proposed 2017 budget is summarized as follows:

Total Estimated Revenue: (includes wholesale rate revenue and miscellaneous revenue)	\$8,841,200
Total Estimated Operating Expenditures: (includes Operations Contract, UWSS Admin, Programs & Studies)	<u>(\$7,042,887)</u>
Revenue versus Operating Expenditures: Surplus/ (Deficit)	\$1,798,313
Capital Program: (includes Capital Purchases and Capital Works)	<u>(\$2,895,000)</u>
NET SURPLUS/ (DEFICIT): (Operating surplus/deficit less Capital Program)	<u>(\$1,088,052)</u>

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 2017 Operations and Capital Budgets including a Budget Summary worksheet, Operations and Debt Detail worksheet, 2017 Capital Budget Details worksheet, and a Water Flow and Revenue worksheet.

Figure 4



CASH /RESERVES VERSUS DEBT

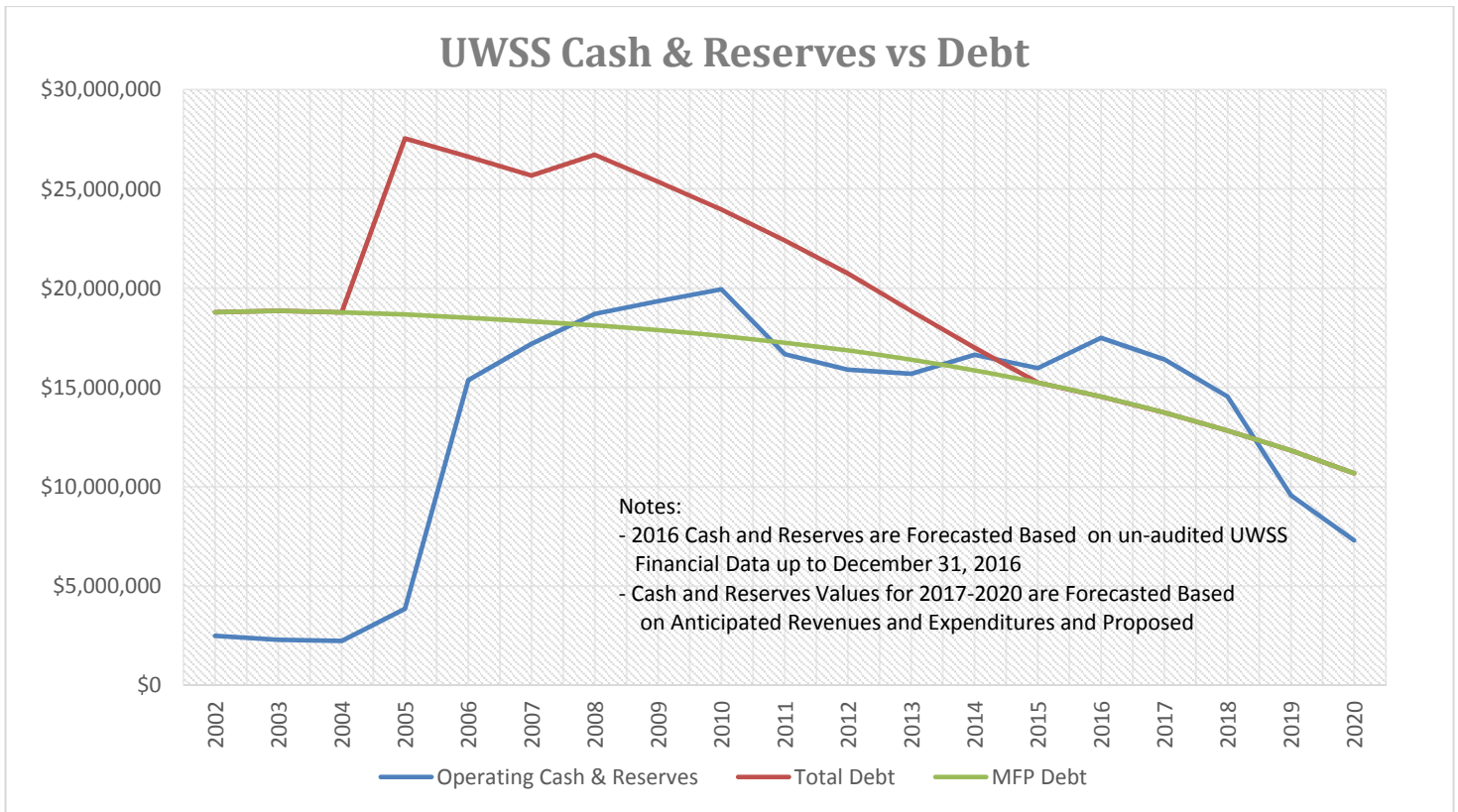
Cash and Reserves for UWSS as of January 1, 2017 are forecasted to be approximately \$17,100,000. It should be noted that of the estimated \$17,100,000 in available cash and reserves for 2017, approximately \$10,000,000 are dedicated to UWSS Settlement Reserve, which is associated with the 2006 settlement that was reached regarding the MFP debt. Although the UWSS Board has authority to do with these funds as it sees fit, the intent is to keep these funds in an interest bearing investment funds to offset the annual MFP Debt obligation and to function as a rate stabilizing Reserve Fund.

The 2017 Operating and Capital Budget projects a Net Deficit of (\$1,088,000) for 2017 year end. Thus, it is anticipated that UWSS reserves at the end of 2016 will decrease to approximately \$16,000,000

Based on debt repayment schedules, the total UWSS long term debt balance for as of January 2017 is \$13,738,634 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 2017-2020 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 (2017-2022) for the UWSS. This Plan reflects the UWSS Manager’s intention to undertake upgrades and improvements to the UWSS to address lifecycle replacement/upgrade issues and to improve water treatment, storage and transmission efficiencies.

December 15, 2016 - UW/34/16

Re: Proposed 2017 UWSS Operations and Capital Budget

The following large capital works are included in the 6-Year Capital Plan:

<u>Year</u>	<u>Proposed Capital Works</u>	<u>Estimated Cost</u>
2018	- Clarifier Retrofit to Dissolved Air Flotation (DAF)	\$2,000,000
	- Chlorine Gas System Retrofit with Dry Scrubber	\$750,000
2019	- UV Disinfection System in Primary Reservoir	\$5,500,000
2020	- Second Clarifier Retrofit to DAF	\$2,000,000
	- Residuals Management System Upgrades	\$1,750,000
2021	- Replacement of 12-inch watermain to Cottam Booster	\$6,000,000

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.

CONCLUSIONS:

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

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2017 UWSS DRAFT OPERATIONS AND CAPITAL BUDGET
TABLES AND DETAILS

**UNION WATER SUPPLY SYSTEM JOINT BOARD OF MANAGEMENT
2017 Proposed Budget December 15, 2016
Flows and Revenue**

Flow Metering Location	2016	2016	2017	2018	2019	2020
	Approved - Revised July 20, 2016	Forecasted to December 31, 2016	\$0.05/1000 Gallon Rate Increase on Rate 1	\$0.05/1000 Gallon Rate Increase on Rate 1	\$0.05/1000 Gallon Rate Increase on Rate 1	\$0.05/1000 Gallon Rate Increase on Rate 1
Essex PUC	175,000,000	181,884,575	175,000,000	175,000,000	175,000,000	175,000,000
Gosfield N. Twsp	120,000,000	126,829,536	120,000,000	120,000,000	120,000,000	120,000,000
Gosfield S. Twsp	1,040,000,000	1,133,023,593	1,070,000,000	1,070,000,000	1,070,000,000	1,070,000,000
Highbury CanCo	160,000,000	178,155,748	165,000,000	165,000,000	165,000,000	165,000,000
Kingsville PUC	135,000,000	151,912,745	140,000,000	140,000,000	140,000,000	140,000,000
Leamington PUC	1,415,000,000	1,480,144,630	1,430,000,000	1,430,000,000	1,430,000,000	1,430,000,000
Lakeshore	95,000,000	106,946,753	100,000,000	100,000,000	100,000,000	100,000,000
Total Flow:	3,140,000,000	3,358,897,580	3,200,000,000	3,200,000,000	3,200,000,000	3,200,000,000
Variance from Previous:	-0.18%					
Rate 1 Flow	2,980,000,000	3,180,741,832	3,035,000,000	3,035,000,000	3,035,000,000	3,035,000,000
Rate 1	\$2.67	\$2.67	\$2.72	\$2.77	\$2.82	\$2.87
Rate 1 Revenue	\$7,956,600	\$8,492,581	\$8,255,200	\$8,406,950	\$8,558,700	\$8,710,450
Rate 2 Flow	0	0	0	0	0	0
Rate 2	\$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
Rate 3 Flow	0	0	0	0	0	0
Rate 3 Revenue	\$0	\$0	\$0	\$0	\$0	\$0
Highbury CanCo Flow	160,000,000	178,155,748	165,000,000	165,000,000	165,000,000	165,000,000
Highbury CanCo Rate	\$1.95	\$1.95	\$2.00	\$2.05	\$2.10	\$2.15
Highbury CanCo Revenue	\$312,000	\$347,404	\$330,000	\$338,250	\$346,500	\$354,750
Lifecycle Rate	\$0.24	\$0.24	\$0.24	\$0.24	\$0.24	\$0.24
	\$753,600	\$806,135	\$768,000	\$768,000	\$768,000	\$768,000
Total Revenue	\$8,268,600	\$8,839,984	\$8,585,200	\$8,745,200	\$8,905,200	\$9,065,200
Difference from Budget						

UNION WATER SUPPLY SYSTEM JOINT BOARD OF MANAGEMENT

2017 Proposed Budget - December 15, 2016
Budget Summary

	2016	2016	2017	2018	2019	2020	2021	2022
	Approved - Revised July 20, 2016	Forecasted to December 31, 2016	Rate 1 Increase - \$0.05/1000 gallons	Rate 1 Increase - \$0.05/1000 gallons	Rate 1 Increase - \$0.05/1000 gallons	Rate 1 Increase - \$0.05/1000 gallons	Rate 1 Increase - \$0.05/1000 gallons	Rate 1 Increase - \$0.05/1000 gallons
Water Flows								
REVENUE								
Senior Government Grants	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Wholesale Rate Billings	\$8,268,600	\$8,819,794	\$8,585,200	\$8,745,200	\$8,905,200	\$9,065,200	\$9,225,200	\$9,385,200
Investment Income	\$155,000	\$439,915	\$232,000	\$290,000	\$290,000	\$290,000	\$290,000	\$290,000
Sundry revenue	\$18,000	\$24,000	\$24,000	\$24,480	\$24,970	\$25,469	\$25,978	\$26,498
TOTAL REVENUES	\$8,441,600	\$9,283,709	\$8,841,200	\$9,059,680	\$9,220,170	\$9,380,669	\$9,541,179	\$9,701,698
OPERATING EXPENDITURE								
General Administration	\$459,128	\$454,046	\$468,311	\$477,677	\$487,230	\$496,975	\$506,914	\$517,053
Miscellaneous Legal/Professional fees	\$20,000	\$2,500	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
OCWA Operating Contract	\$2,712,000	\$2,712,000	\$2,766,240	\$2,821,565	\$2,877,996	\$2,935,556	\$2,994,267	\$3,054,152
Programs and Studies	\$270,000	\$200,685	\$235,000	\$240,000	\$175,000	\$285,000	\$185,000	\$185,000
Electricity and Natural Gas	\$1,000,000	\$1,075,000	\$1,250,000	\$1,275,000	\$1,300,000	\$1,325,000	\$1,350,000	\$1,375,000
TOTAL OPERATING EXPENDITURES	\$4,461,128	\$4,444,231	\$4,739,551	\$4,834,242	\$4,860,227	\$5,062,531	\$5,056,182	\$5,151,206
Debt Service	\$2,276,080	\$2,276,080	\$2,294,701	\$2,313,441	\$2,332,441	\$2,379,089	\$2,426,671	\$2,475,205
TOTAL DEBT SERVICE EXPENDITURES	\$2,276,080	\$2,276,080	\$2,294,701	\$2,313,441	\$2,332,441	\$2,379,090	\$2,426,672	\$2,475,205
CAPITAL EXPENDITURE								
Capital Repair, Maintenance & Upgrade Works	\$1,040,000	\$1,040,000	\$2,895,000	\$1,035,000	\$1,500,000	\$455,000	\$715,000	\$1,170,000
New Capital Works	\$0	\$0	\$0	\$2,750,000	\$5,500,000	\$3,750,000	\$6,000,000	\$0
Contingency								
TOTAL CAPITAL EXPENDITURES	\$1,040,000	\$1,040,000	\$2,895,000	\$3,785,000	\$7,000,000	\$4,205,000	\$6,715,000	\$1,170,000
NET SURPLUS/(DEFICIT)	\$664,392	\$1,523,398	-\$1,088,052	-\$1,873,003	-\$4,972,498	-\$2,265,952	-\$4,656,675	\$905,287
Difference from Budget:		\$859,006		-\$12,427,495				

UNION WATER SUPPLY SYSTEM JOINT BOARD OF MANAGEMENT
2017 Proposed Budget - December 15, 2016
Operations and Debt Detail

<u>Number</u>	<u>Account Description</u>	2016	2016	2017	2018	2019	2020
		Approved - Revised July 20, 2016	Forecasted to December 31, 2016	Budget- Rate 1 Increase of \$0.05/1000 Gallons	Budget- Rate 1 Increase of \$0.05/1000 Gallons	Budget- Rate 1 Increase of \$0.05/1000 Gallons	Budget- Rate 1 Increase of \$0.05/1000 Gallons
REVENUE ACCOUNTS							
FEES REVENUE							
0700-3700	Wholesale Rate Billings	\$8,268,600	\$8,819,794	\$8,585,200	\$8,745,200	\$8,905,200	\$9,065,200
		\$8,268,600	\$8,819,794	\$8,585,200	\$8,745,200	\$8,905,200	\$9,065,200
MISCELLANEOUS REVENUES							
0700-4100	Investment Income (Operations)	\$15,000	\$22,201	\$22,000	\$25,000	\$25,000	\$25,000
0700-3999	Sundry revenue	\$18,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000
0700-4100	Investment Income (Reserves)	\$140,000	\$417,714	\$210,000	\$265,000	\$265,000	\$265,000
					\$80,000	\$80,000	\$80,000
		\$173,000	\$463,915	\$256,000	\$394,000	\$394,000	\$394,000
	TOTAL REVENUES :	\$8,441,600	\$9,283,709	\$8,841,200	\$9,139,200	\$9,299,200	\$9,459,200
EXPENDITURE ACCOUNTS							
WAGES AND BENEFITS							
0700-5000	Salaried	\$157,100	\$163,052	\$166,500	\$169,830	\$173,227	\$176,691
	Part time	\$0	\$0	\$0	\$0	\$0	\$0
0700-5200 to 5210	Benefits - Full time	\$45,778	\$46,761	\$47,696	\$48,650	\$49,623	\$50,616
	Benefits - Part time	\$0	\$0	\$0	\$0	\$0	\$0
		\$202,878	\$209,813	\$214,196	\$218,480	\$222,850	\$227,307
OFFICE OVERHEAD, RENTS AND SERVICES							
0700-7010	Office supplies	\$2,000	\$1,250	\$2,000	\$2,000	\$2,000	\$2,000
0700-7015	Board expenses	\$1,500	\$0	\$1,000	\$1,500	\$1,500	\$1,500
0700-7020	Dues, Memberships, Subsc	\$3,500	\$3,000	\$3,500	\$3,500	\$3,500	\$3,500
0700-7030	Travel & Mileage	\$1,500	\$2,500	\$2,500	\$1,500	\$1,500	\$1,500
0700-7040	Training	\$6,000	\$2,200	\$5,000	\$6,000	\$6,000	\$6,000
0700-7050	Conferences	\$6,000	\$5,500	\$5,000	\$6,000	\$6,000	\$6,000
0700-7052	Meeting Expenses	\$2,000	\$1,750	\$2,000	\$2,000	\$2,000	\$2,000
0700-7070	Uniforms/Clothing	\$500	\$350	\$500	\$500	\$500	\$500
0700-7950	Legal/Professional fees	\$20,000	\$2,500	\$20,000	\$20,000	\$20,000	\$20,000
0700-7959-002070	Audit Fees	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
0700-6750	Property Taxes	\$140,000	\$141,794	\$145,000	\$140,000	\$140,000	\$140,000
0700-7080 & 7085	Operational Purchases/Maint.	\$15,000	\$11,500	\$15,000	\$15,000	\$15,000	\$15,000
0700-7090	Sundry	\$250	\$1,000	\$1,000	\$250	\$250	\$250
0700-7090	Leamington Assistance	\$30,000	\$30,000	\$30,000	\$20,000	\$20,000	\$20,000
0700-7110	Communications	\$1,500	\$900	\$1,500	\$1,500	\$1,500	\$1,500
0700-7120	Postage & Courier	\$500	\$150	\$500	\$500	\$500	\$500
0700-7130	Advertising & Promotion	\$7,000	\$6,367	\$7,000	\$7,000	\$7,000	\$7,000
0700-7140	Insurance	\$15,000	\$14,472	\$15,000	\$15,000	\$15,000	\$15,000
0700-7130	Donations & Grants	\$4,000	\$3,000	\$4,000	\$4,000	\$4,000	\$4,000
0700-7230 to 7290	Office equipment Purchases/Maint.	\$5,000	\$3,500	\$7,250	\$5,000	\$5,000	\$5,000
		\$276,250	\$246,733	\$282,750	\$266,250	\$266,250	\$266,250
0700-6720	OCWA Operating Union	\$2,712,000	\$2,712,000	\$2,766,240	\$2,821,565	\$2,877,996	\$2,935,556
0700-7410 & 7420	Electricity and Natural Gas	\$1,000,000	\$1,075,000	\$1,250,000	\$1,050,000	\$1,100,000	\$1,150,000
		\$3,712,000	\$3,787,000	\$4,016,240	\$3,871,565	\$3,977,997	\$4,085,557
0700-7989-002070	Operational Programs & Studies	\$270,000	\$200,685	\$235,000	\$240,000	\$175,000	\$285,000
Un-Budgeted Expenditures							
	Schiller Drain - Kingsville Levy	\$0	\$27,102				
	Water Main Repairs	\$0	\$73,563				
	TOTAL OPERATIONAL EXPENDITURES:	\$4,461,128	\$4,444,231	\$4,748,186	\$4,596,295	\$4,642,097	\$4,864,114
	NET OPERATIONAL SURPLUS/(DEFICIT)	\$3,980,472	\$4,839,478	\$4,093,014	\$4,542,905	\$4,657,103	\$4,595,086
DEBT SERVICE							
0700-6000 & 6100	Sun Life Debt Obligation	\$2,276,080	\$2,276,080	\$2,294,701	\$2,313,441	\$2,332,441	\$2,379,089
0700-6000 & 6100	Woodslee Credit Union						
0700-6000 & 6100	OSIFA						
0700-6010 & 6110	Leamington WM						
	TOTAL DEBT SERVICE:	\$2,276,080	\$2,276,080	\$2,294,701	\$2,313,441	\$2,332,441	\$2,379,089
	SURPLUS/(DEFICIT) AFTER DEBT	\$1,704,392	\$2,563,398	\$1,798,313	\$2,229,464	\$2,324,663	\$2,215,997

**Union Water Supply System
2017 Proposed Budget - December 15, 2016
2016 Capital Budget Expenditures**

Item Description	Approved 2016 Budget	As of Dec 14, 2016	Forecasted Total Expenditures	Percent of Budget
STUDIES/PROGRAMS				
Water Demand/Usage (e.g. Smart Water Study)	\$35,000	\$35,000	\$35,000	100%
Water Quality (CWN, etc.)	\$55,000	\$50,685	\$50,685	92%
On-Site Hypochlorite Generation Assessment	\$0	\$0	\$0	-
Energy Audit / Optimization	\$50,000	\$0	\$0	0%
Algae Related Assessments (e.g. Prelim DAF evaluation, etc.)	\$0	\$0	\$0	-
Water Quality/ Treatment Master Plan	\$100,000	\$72,283	\$100,000	100%
UWSS Restructuring to MSC-Next Steps-Business Plan	\$30,000	\$1,500	\$15,000	50%
Total Studies/Programs	\$270,000	\$159,468	\$200,685	74%
CAPITAL WORKS/ MAJOR MAINTENANCE				
Low Lift Pump #3 Major Maintenance	\$25,000	\$19,640	\$19,640	79%
Zebra Mussel Control System - Intake #1	\$90,000	\$89,566	\$89,566	100%
Carbon Feed Pump Replacements (2)	\$20,000	\$11,750	\$15,750	79%
Carbon Scrubber System Upgrade	\$40,000	\$0	\$0	0%
Removal of Existing Microstrainers	\$30,000	\$2,941	\$10,000	33%
Clarifier #1 Painting and Maintenance	\$0	\$0	\$0	-
Filter Meter Replacements (Year 2 of 3 Year Program)	\$15,000	\$15,156	\$15,156	101%
Treatment Plant Valves (eg. Filters, etc)	\$40,000	\$27,914	\$35,000	88%
Turbidity Meter Replacements (Year 2 of 3 year Program)	\$25,000	\$13,172	\$22,000	88%
Chlorine Analyzer Replacements (Year 1 of 2 year Program)	\$20,000	\$13,581	\$19,500	98%
High Lift Pump #3 Rehabilitation	\$45,000	\$30,777	\$30,777	68%
High Lift Reservoir Repairs	\$50,000	\$0	\$48,500	97%
Waste Lagoon Excavation - south lagoon	\$0	\$0	\$0	-
Lagoon Residuals Materials Management	\$100,000	\$103,341	\$103,341	103%
Lighting Upgrades - Exterior of Treatment Plant	\$15,000	\$3,765	\$7,500	50%
Window Replacements - Treatment Plant (Year 2 of 3 Year Program)	\$25,000	\$25,360	\$25,360	101%
Front Foyer/Entrance Upgrades	\$40,000	\$0	\$0	0%
Roadway Upgrades to Maintenance Shop - New cement pad	\$15,000	\$17,300	\$17,300	115%
Upgrades to Existing Pole Barn- New Roof, electrical, etc.	\$40,000	\$15,800	\$30,000	75%
Construction of New 30ft x 50ft Pole Barn	\$40,000	\$0	\$0	0%
Cottam Booster Pump #3 - Rehabilitation	\$15,000	\$5,609	\$5,609	37%
Security System Install	\$20,000	\$0	\$0	0%
SCADA System Upgrade/Maintenance	\$35,000	\$7,711	\$33,000	94%
Communication System Improvements	\$35,000	\$6,869	\$20,000	57%
Distribution System Valves and Components	\$60,000	\$40,646	\$45,000	75%
Master Water Meter Replacements/Upgrades	\$50,000	\$49,813	\$49,813	100%
Portable 250hp Backup Generator for High lift, low lift, towers, etc	\$150,000	\$127,213	\$142,000	95%
Chlorine Building Roof Liner Replacement (Flat Roof)	\$0	\$12,181	\$12,181	-
Essex Water Tower Ladder Safety Upgrade	\$0	\$1,984	\$1,984	-
Total Capital Works/ Major Maintenance	\$1,040,000	\$642,090	\$798,977	77%
TOTAL STUDIES , CAPITAL and MAINTENANCE	\$1,310,000	\$801,558	\$999,662	76%

Union Water Supply System
2017 Proposed Budget - December 15, 2016
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
<u>STUDIES/PROGRAMS</u>										
Water Demand/Usage Investigations/Studies	\$25,000							\$25,000	\$25,000	
Water Quality (CWN, etc.)	\$35,000							\$35,000	\$35,000	
Dissolved Air Flotation Pilot Testing and Preliminary Engineering	\$125,000							\$125,000	\$125,000	
Energy Audit / Optimization	\$50,000							\$50,000	\$50,000	
Total Studies/Programs	\$235,000							\$235,000		
<u>CAPITAL WORKS/ MAJOR MAINTENANCE</u>										
Low Lift Pump #5 Major Maintenance			\$35,000					\$35,000	\$35,000	
Carbon Scrubber Construction		\$40,000						\$40,000	\$40,000	
Microstrainer Floors		\$20,000						\$20,000	\$20,000	
Filter Meter Replacements (Year 3 of 3 Year Program)		\$15,000						\$15,000	\$15,000	
Filter Media Replacement -Filters 5 and 7		\$140,000						\$140,000	\$140,000	
Turbidity Meter Replacements (Year 3 of 3 year Program)		\$25,000						\$25,000	\$25,000	
Chlorine Analyzer Replacements (Year 2 of 2 year Program)		\$20,000						\$20,000	\$20,000	
High Lift Pump #4 Rehabilitation		\$45,000						\$45,000	\$45,000	
High Lift Compressor #1 Replacement		\$15,000						\$15,000	\$15,000	
Window Replacements - Treatment Plant (Year 3 of 3 Year Program)		\$25,000						\$25,000	\$25,000	
Front Foyer/Entrance Upgrades		\$75,000						\$75,000	\$75,000	
Waste Lagoon Excavation - south lagoon		\$100,000						\$100,000	\$100,000	
Lagoon Residuals Materials Management		\$100,000						\$100,000	\$100,000	
Security System Install					\$30,000			\$30,000	\$30,000	
Essex Water Tower Rehabilitation (interior and exterior)							\$850,000	\$850,000	\$850,000	
Distribution System Valves and Components							\$60,000	\$60,000	\$60,000	
Master Water Meter Replacements/Upgrades							\$50,000	\$50,000	\$50,000	
SCADA System Upgrade - Complete new system					\$1,250,000			\$1,250,000	\$0	\$1,250,000
Total Capital Works/ Major Maintenance	-	\$620,000	\$35,000	\$0	\$1,280,000	\$0	\$960,000	\$2,895,000	\$1,645,000	\$1,250,000
TOTAL STUDIES , CAPITAL and MAINTENANCE	\$235,000	\$620,000	\$35,000	\$0	\$1,280,000	\$0	\$960,000	\$3,130,000	\$1,880,000	\$1,250,000

UWSS 6 – YEAR CAPITAL PLAN
TABLES AND DETAILS

UNION WATER SUPPLY SYSTEM Six Year Recommended Capital / Major Maintenance - December 15, 2016								<u>DRAFT</u>
	2017	2018	2019	2020	2021	2022	Total Capital Expenditures 2017-2022	Comments
Union Area Water Supply System								
Studies and Programs								
Water Demand/Usage Study	\$ 25,000	\$ -					\$ 25,000	Smart Water Study, etc.
Water Quality Investigations	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 210,000	CWN Algae Study, etc,
Energy Optimization Study	\$ 50,000						\$ 50,000	
Dissolved Air Flotation Pilot Testing and Preliminary Engineering	\$ 125,000						\$ 125,000	Evaluate the Potential for Installation of DAF Retrofit in existing clarifiers.
Residuals Management Studies		\$ 40,000	\$ 40,000					
Water Loss/Leak Detection Study		\$ 125,000					\$ 125,000	
Operations Contract Assessment		\$ 40,000					\$ 40,000	
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			\$ 100,000				\$ 100,000	
Contingency (un-identified future studies)					\$ 150,000	\$ 150,000	\$ 300,000	
Subtotal Studies and Programs	\$ 235,000	\$ 240,000	\$ 175,000	\$ 285,000	\$ 185,000	\$ 185,000	\$ 1,225,000	
Low Lift								
Intake #1 & 2* (Note 5)				\$30,000			\$ 30,000	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 2019
Pump Wells(2)							\$ -	cleaned & inspected annually
Low Lift Pump 1 *(Note 1)					\$ 30,000	\$ 30,000	\$ 60,000	rebuilt in 2005
Low Lift Pump 2							\$ -	rebuilt in 2004, should schedule for rebuild
Low Lift Pump 3							\$ -	rebuilt in 2006
Low Lift Pump 4							\$ -	rebuilt in 2007
Low Lift Pump 5	\$ 35,000						\$ 35,000	
Low Lift Pump 6		\$ 35,000					\$ 35,000	rebuilt in 2008
Low Lift Pump 7			\$ 30,000				\$ 30,000	rebuilt in 2008
Zebra Mussel Control System					\$ 50,000	\$ 50,000	\$ 100,000	Install zebra mussel control system for Intake #1.
Pump discharge line							\$ -	
Low Lift Surge Tanks (2) and Compressor System *(Note 6)				\$20,000			\$ 20,000	General maintenance
Low Lift Diesel Generator							\$ -	O & M Contracted to Genrep
Low Lift Electrical Transformer Upgrade							\$ -	Electrical Transformer is old and undersized. Needs to be upgraded
General Building Maintenance & Equipment								
Roadway upgrades to Maintenance Area -			\$ 50,000			\$ 75,000	\$ 125,000	upgrade of roadway to rear plant area
Asphalt Pavement Sealing - Low lift, treatment plant, CBS	\$ 40,000						\$ -	
New Maintenance Shop Building							\$ -	new maintenance/vehicle storage area
Building/Grounds -			\$ 50,000	\$ 50,000	\$ 50,000	\$ 100,000	\$ 250,000	General improvements
Upgrades to Pole Barn - Roof, electric, etc.							\$ -	Pole Barn roof leaking badly. Electrical needs upsizing
Clarification System								
Clarifier 1 - Retrofit to DAF or Lamella Plates							\$ -	Retrofit

Clarifier 2 - Retrofit to DAF or Lamella Plates							\$ -
Clarifier 3							\$ -
Clarifier 4							\$ -
Chemical System							\$ -
Coagulant Feed System				\$ 30,000			\$ 30,000
Coagulant Storage				\$ 30,000			\$ 30,000
Coagulant Aid System			\$ 20,000				\$ 20,000
Carbon Feed System							\$ -
Carbon Flushing Lines							\$ -
Tank Mixers (3)							\$ -
Recirc. Pump		\$ 20,000					\$ 20,000
Slurry Transfer Pumps (2)			\$ 30,000				\$ 30,000
Carbon Feed Pumps (4)					\$ 50,000		\$ 50,000
Carbon Scrubber System	\$ 40,000						\$ 40,000
Filtration							\$ -
Filter 1							\$ -
Filter 2							\$ -
Filter 3							\$ -
Filter 4							\$ -
Filter 5	\$ 70,000						\$ 70,000
Filter 6		\$ 75,000					\$ 75,000
Filter 7	\$ 70,000						\$ 70,000
Filter 8		\$ 75,000					\$ 75,000
Filter Meter Replacements	\$ 15,000						\$ 15,000
Valves							\$ -
Removal of Microstrainers/ Install of Flooring	\$ 30,000						\$ 30,000
Pumps							\$ -
Backwash Pump 1 - Upgrade with VFD							\$ -
Backwash Pump 2					\$ 100,000		\$ 100,000
High Lift Pump 1 *(Note 2) Diesel Pump							\$ -
High Lift Pump 2							\$ -
High Lift Pump 3							\$ -
High Lift Pump 4	\$ 45,000						\$ 45,000
High Lift Pump 5			\$ 35,000				\$ 35,000
High Lift Pump 6							\$ -
High Lift Pump 7		\$ 85,000					\$ 85,000
High Lift Pump 8			\$ 125,000				\$ 125,000
High Lift Pump 9					\$ 125,000		\$ 125,000
High Lift Reservoirs (2)							\$ -
Wastewater Pumps (2)		\$ 10,000		\$ 10,000			\$ 20,000
Diesel Generator 1 (170 kW)							\$ -
Diesel Generator 2 (750 kW)							\$ -
Diesel Generator Upgrades							\$ -
HL Compressor 1	\$ 15,000						\$ 15,000
HL Compressor 2				\$ 15,000			\$ 15,000
HL Compressor 3				\$ 15,000	\$ 15,000		\$ 30,000
Main Plant Electrical							\$ -
Electrical/Lighting Upgrades				\$ -			\$ -
Power Factor Capacitors for Energy Management	\$ 50,000						\$ 50,000
Generator B Transfer Switch Automation							\$ -
Disinfection							\$ -
Dehumidification							\$ -
Chlorine Feed System							\$ -
Ammonia Feed System				\$ 30,000			\$ 30,000
Scrubber System				\$ 30,000			\$ 30,000
SCADA /Communication/Security							\$ -
Software Upgrade	\$100,000						\$ 100,000

Retrofit
Retrofit
Retrofit
Upgraded in 2013
System upgraded 2015
new in 1989
replaced in 2006
requires upgrade
Fully upgraded in 2012
Upgrades in 2014
Fully upgraded in 2013
Upgrades in 2014
installed in 1996
installed in 1996
installed in 1996
installed in 1996
Filter meters need replacement
Large valves need replacement; original equipment
No longer needed as part of treatment process
Replaced in 2014 - VFD 2015
new in 1996
rebuild in 2016
Replaced 2013
rebuilt 2006
rebuilt 2007
rebuilt 2008
new pump 2013
requires replacement,on hold until new pump curves are determined
new in 1996, rebuilt 2015
new in 1996
Reservoir Leaking- Requires full cleanout, full inspection, RSP #2 replacement
Replacement
Replacement
Replacement
Conversion to LED at all facilities
Capacitors are failing. Upgrades needed
Health & Safety Risk; currently done manually
to review once filter repairs completed
Evaluation of Conversion to On-Site Hypo Generation (2016). Upgrades to On-Site Hypo (2017)
installed new in 2002
new acid pump installed in 2009
Wonderware SCADA software upgrade

Security System Install	\$30,000						\$ 30,000
System upgrade and Maintenance	\$150,000	\$250,000	\$20,000	\$20,000	\$20,000	\$20,000	\$ 480,000
UWSS Wide Communication System Improvements	\$35,000	\$20,000	\$20,000	\$20,000	\$20,000	\$50,000	\$ 165,000
Monitoring Equipment							
Turbidity Meter Replacement -	\$25,000						\$ 25,000
Chlorine Analyzer Replacements	\$20,000	\$20,000					\$ 40,000
Building Maintenance							
Facility Enhancements - General		\$20,000	\$20,000	\$20,000	\$150,000	\$150,000	\$ 360,000
Windows & Doors Replacement	\$25,000						\$ 25,000
Front Foyer Upgrade -	\$75,000						\$ 75,000
New Equipment							
Portable Backup Generator for Low Lift, Water Towers, Emergency							\$ -
Cottam Reservoir & Booster PS							
Reservoir - 2 water mixers							\$ -
Booster Pump 1							\$ -
Booster Pump 2							\$ -
Booster Pump 3							\$ -
Booster Pump 4					\$35,000		\$ 35,000
Surge Tanks (2)							\$ -
Compressor		\$15,000					\$ 15,000
Emergency Disinfection System							\$ -
Cottam MCC PLC Upgrade							\$ -
Distribution System							
Leamington Tower							\$ -
Albuna Tower						\$250,000	\$ 250,000
Kingsville Tower			\$750,000				\$ 750,000
Essex Tower	\$850,000						\$ 850,000
Distribution System Valves and other Components	\$60,000	\$60,000	\$50,000	\$50,000	\$50,000	\$50,000	\$ 320,000
Master Water Meter Replacement/Upgrades	\$50,000						\$ 50,000
Cottam 12-inch main replacement- EA		\$250,000					\$ 250,000
Wastewater Treatment System							
Waste Lagoon Excavation - north lagoon			\$100,000				\$ 100,000
Waste Lagoon Excavation - south lagoon	\$100,000				\$100,000		\$ 200,000
Lagoon Residuals Materials Management	\$100,000	\$100,000	\$100,000	\$100,000	\$75,000	\$75,000	\$ 550,000
NEW CAPITAL WORKS							
							\$ -
UV Disinfection - In-reservoir UV vault			\$5,500,000				\$ -
Dry Scrubber - Chlorine Gas system	\$900,000						
Pre-Treatment/clarification upgrades (DAF)		\$2,000,000		\$2,000,000			
Residuals management Polymer system waste system upgrades				\$1,750,000			\$ 1,750,000
Replacement of 12-inch Cottam Water Main					\$6,000,000		\$ 6,000,000

Keyless entry security system
upgrade to maintain currency of system,pending audit
improvements to existing communication system
Old equipment. All need to be updated
Old equipment. All need to be updated
Elevator Needed for Access
asbestos like material present in window caulking, portion to be completed each year until finished
Front Foyer entry Roof Structure leaking badly. Structure to be removed and upgraded
New portable Backup generator
repairs to isolation valves, and installation of 2 mixer pumps - Completed 2013
new in 1996
new in 1996
new in 1996
new in 1996
Insurance inspected in 2009, needs internal inspection
Replaced 2012
Completed 2014
Completed 2014
New Control Valve on 42inch for Albuna Control
Safety Upgrades and Painting (2017)
Painting (2016)
For water main breaks, etc.
Replacement and Upgrade of Mechanical Water Meters to Magnetic Water Meters
To be evaluated
Residuals management facility to replace lagoons

Subtotal Capital and Major Maintenance \$2,030,000 \$1,035,000 \$1,500,000 \$455,000 \$715,000 \$1,170,000 \$ 6,905,000

Subtotal Studies and Programs \$235,000 \$240,000 \$175,000 \$285,000 \$185,000 \$185,000 \$ 1,305,000

TOTAL CAPITAL AND STUDIES \$2,265,000 \$1,275,000 \$1,675,000 \$740,000 \$900,000 \$1,355,000 \$ 8,210,000

Total New Capital Works \$900,000 \$2,000,000 \$5,500,000 \$3,750,000 \$6,000,000 \$0 \$ 18,150,000

Contingency

TOTAL CAPITAL, STUDIES AND NEW CAPITAL \$ 3,165,000 \$ 3,275,000 \$ 7,175,000 \$ 4,490,000 \$ 6,900,000 \$ 1,355,000 \$ 26,360,000

**Dates for the Union Water Supply System Joint Board of Management Meetings
for the 2017 Year**

January 18, 2017

February 15, 2017

March 15, 2017

April 19, 2017

May 17, 2017

June 21, 2017

July 19, 2017

August 16, 2017

September 20, 2017

October 18, 2017

November 15, 2017

December 20, 2017

All meetings will take place at the Kingsville Arena – Community Room, upstairs, commencing at 9:00 a.m., unless otherwise notified.

UW/34/16

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

From: Rodney Bouchard, Union Water Manager

Date: December 16, 2016

Re: Payments for the UWSS from November 11 to December 16, 2016



Aim:

To provide the Board with a copy of payments made by the Union Water Supply System from November 11 to December 16, 2016.

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\2016\uw34-16 payments from november to december 2016.docx



Vendor : 001410 To PT00000102
Batch : All
Department : All

Cheque Print Date : 16-Nov-2016 To 17-Nov-2016
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								
020120 BELL MOBILITY CELLULAR								
514877178-OC	MONTHLY CELL CHARGES					707 01-Oct-2016	16-Nov-2016	
70-5-0700-7110	002070	002083		Telecommunications Usage				84.19
200348 CORPORATION OF THE TOWN OF KINGSVILLE								
300-01000 NO	TAXES - PIGEON BAY LANE - LOW LIFT					709 10-Nov-2016	16-Nov-2016	
70-5-0700-6750	002072			Property Tax				5,690.00
300-20100 NO	TAXES - 1615 UNION - RUTHVEN WTP					709 10-Nov-2016	16-Nov-2016	
70-5-0700-6750	002072			Property Tax				53,500.00
590-02800 NO	TAXES - 163 CTY RD 34E - COTTAM BOOSTER					709 10-Nov-2016	16-Nov-2016	
70-5-0700-6750	002072			Property Tax				8,778.00
080250 HYDRO ONE NETWORKS INC								
200141677460	OCT/16 HYDRO - RUTHVEN WTP					709 04-Nov-2016	16-Nov-2016	
70-5-0700-7420	002073			Electricity				62,192.95
200141680692	OCT/16 HYDRO - LOW LIFT					709 04-Nov-2016	16-Nov-2016	
70-5-0700-7420	002073			Electricity				33,245.02
200141690190	OCT/16 HYDRO - METER#26					709 07-Nov-2016	16-Nov-2016	
70-5-0700-7420	002073			Electricity				129.53
190755 SUN LIFE ASSURANCE COMPANY OF CANADA								
NOV-16	NOV/16 UNION WATER LOAN 3724:1					709 10-Nov-2016	16-Nov-2016	
70-5-0700-6000	002020	006901		Debenture Principal				8,535.60
70-5-0700-6100	002010	006901		Debenture Interest				128,029.18
190990 SYNTEC PROCESS EQUIPMENT								
0086779-IN	INLET VLAVE FOR CLARIFIER #2					709 29-Sep-2016	16-Nov-2016	
70-7-0700-8720	700002			Clarifiers				9,808.40
210120 UNION GAS LTD								
OCT-NOV16 17	24.980M3 GAS - COTTAM BOOSTER STN					709 10-Nov-2016	16-Nov-2016	
70-5-0700-7410	002073			Gas				30.83
230480 WFS LTD								
4372321 - 385C	BLIND FLANGES					709 27-Oct-2016	16-Nov-2016	
70-7-0700-8745	700130			Treatment Plant				3,118.80
Department Totals :								313,142.50



Vendor : 001410 To PT00000102
 Batch : All
 Department : All

EFT Paid Date : 16-Nov-2016 To 17-Nov-2016
 Bank : 07 To 08
 Class : All

Vendor Code	Vendor Name				Batch	Inv Date	Inv Due Date	
Invoice No.	Description							
G.L. Account	CC1	CC2	CC3	GL Account Name				Amount
DEPARTMENT 0700				Union Water System				
030515	CUETS FINANCIAL							
AIR CANADA-M MEAL - CALGARY WATER TREATMENT PLANTS					709	17-Oct-2016	16-Nov-2016	
70-5-0700-7050	002070	002001		Conferences				14.02
AIR CANADA-N AIRFARE TO CALGARY&RETURN					709	17-Oct-2016	16-Nov-2016	
70-5-0700-7050	002070	002009		Conferences				652.15
ENTERPRISE-7 CAR RENTAL - ESRI WORKSHOP					709	06-Oct-2016	16-Nov-2016	
70-5-0700-7040	002070	002009		Training				103.71
ESRI C-1610-17 REGIST - ESRI CANADA USER CONF					709	03-Oct-2016	16-Nov-2016	
70-5-0700-7040	002070	002003		Training				152.55
HOLIDAY INN#3 ROOM - ESRI WORKSHOP					709	05-Oct-2016	16-Nov-2016	
70-5-0700-7040	002070	002002		Training				147.24
IKEA - 404412 DINNER - ESRI WORKSHOP					709	04-Oct-2016	16-Nov-2016	
70-5-0700-7040	002070	002001		Training				7.90
RBC TRAVEL TRAVEL INSURANCE					709	19-Oct-2016	16-Nov-2016	
70-5-0700-7050	002070	002009		Conferences				50.76
SHELL-0443096 FUEL - ESRI WORKSHOP					709	06-Oct-2016	16-Nov-2016	
70-5-0700-7040	002070	002009		Training				16.49
SHELL-0459096 FUEL - ESRI WORKSHOP					709	04-Oct-2016	16-Nov-2016	
70-5-0700-7040	002070	002009		Training				45.83
TIM HORTONS- TIMBITS - MEETING OCT19					709	19-Oct-2016	16-Nov-2016	
70-5-0700-7052	002070			Meeting Expenses				8.99
Department Totals :								1,199.64



Vendor : 001410 To PT00000107
 Batch : All
 Department : All

Cheque Print Date : 25-Nov-2016 To 25-Nov-2016
 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									
020120 BELL MOBILITY CELLULAR									
514877178-NO MONTHLY CELL CHARGES						710 01-Nov-2016	24-Nov-2016		
70-5-0700-7110	002070	002083			Telecommunications Usage			58.76	
080250 HYDRO ONE NETWORKS INC									
200152134969 OCT-NOV/16 HYDRO - METER#17						727 18-Nov-2016	24-Nov-2016		
70-5-0700-7420	002073				Electricity			37.41	
200208899066 OCT/16 HYDRO - METER#16						727 14-Nov-2016	24-Nov-2016		
70-5-0700-7420	002073				Electricity			109.95	
Department Totals :									206.12



Vendor : 001410 To PT00000108
Batch : All
Department : All

Cheque Print Date : 02-Dec-2016 To 02-Dec-2016
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								
080250 HYDRO ONE NETWORKS INC								
200141683726	OCT/16 HYDRO - METER#15					740 23-Nov-2016	01-Dec-2016	
70-5-0700-7420	002073			Electricity				34.21
180159 RECEIVER GENERAL								
6376	PMT FOR ACCT#893254920RP0001					740 11-Nov-2016	01-Dec-2016	
70-7-0700-8745	700020			Treatment Plant				3,959.47
210120 UNION GAS LTD								
OCT-NOV16 2'	5069.035M3 GAS - RUTHVEN WTP					740 21-Nov-2016	01-Dec-2016	
70-5-0700-7410	002073			Gas				1,507.86
OCT-NOV16 2'	0.0M3 GAS - LOW LIFT					740 23-Nov-2016	01-Dec-2016	
70-5-0700-7410	002073			Gas				23.73
Department Totals :								5,525.27



Vendor : 001410 To PT00000109
 Batch : All
 Department : All

Cheque Print Date : 08-Dec-2016 To 08-Dec-2016
 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				
DEPARTMENT 0700	Union Water System				
010103 ASSOCIATED ENGINEERING (ONT) LTD					
521879	WATER QUALITY MASTERPLAN-NOV4	742	22-Nov-2016	08-Dec-2016	
70-5-0700-7989	002075 Operational Programs & Studies				33,179.35
020120 BELL MOBILITY CELLULAR					
514877178-DE	MONTHLY CELL CHARGES	724	01-Dec-2016	08-Dec-2016	
70-5-0700-7110	002070 002083 Telecommunications Usage				58.76
200348 CORPORATION OF THE TOWN OF KINGSVILLE					
W16-0034	WATERMAIN BREAK 243 CR 34 E	742	21-Nov-2016	08-Dec-2016	
70-7-0700-8750	002202 Watermains				8,297.06
050003 E.L.K. ENERGY INC					
40010915-OCT	1867KWH - ESSEX WATER TOWER	742	01-Dec-2016	08-Dec-2016	
70-5-0700-7420	002073 Electricity				291.48
40047150-OCT	401KWH - METER#9	742	01-Dec-2016	08-Dec-2016	
70-5-0700-7420	002073 Electricity				78.41
90006300-OCT	19199KWH - COTTAM BOOSTER	742	01-Dec-2016	08-Dec-2016	
70-5-0700-7420	002073 Electricity				3,730.90
050195 ESSEX POWERLINES CORPORATION					
220651-OCT16	16KWH - METER#4	742	22-Nov-2016	08-Dec-2016	
70-5-0700-7420	002073 Electricity				42.97
70-5-0700-7420	002073 Electricity				0.16
080250 HYDRO ONE NETWORKS INC					
200141680894	OCT/16 HYDRO - LEAM. WATER TOWER	742	29-Nov-2016	08-Dec-2016	
70-5-0700-7420	002073 Electricity				428.04
200141681706	OCT/16 HYDRO - METER#2	742	28-Nov-2016	08-Dec-2016	
70-5-0700-7420	002073 Electricity				41.95
200141682009	OCT/16 HYDRO - ALBUNA WATER TOWER	742	30-Nov-2016	08-Dec-2016	
70-5-0700-7420	002073 Electricity				351.42
200141683019	OCT/16 HYDRO - METER#3	742	29-Nov-2016	08-Dec-2016	
70-5-0700-7420	002073 Electricity				43.23
200141683120	OCT/16 HYDRO - METER#5	742	30-Nov-2016	08-Dec-2016	
70-5-0700-7420	002073 Electricity				39.03
200141683423	OCT/16 HYDRO - METER#6	742	29-Nov-2016	08-Dec-2016	
70-5-0700-7420	002073 Electricity				37.27
200141683524	OCT/16 HYDRO - METER#8	742	28-Nov-2016	08-Dec-2016	
70-5-0700-7420	002073 Electricity				36.83
200141687362	OCT/16 HYDRO - METER#22	742	28-Nov-2016	08-Dec-2016	
70-5-0700-7420	002073 Electricity				86.08
200141687766	OCT/16 HYDRO - METER#22	742	28-Nov-2016	08-Dec-2016	
70-5-0700-7420	002073 Electricity				37.01
200141687867	OCT/16 HDYRO - METER#24	742	28-Nov-2016	08-Dec-2016	
70-5-0700-7420	002073 Electricity				34.18
997507 JDC.CA INC					
2361	COMMUNICATIONS UPGRADE - KINGSVILLE WT	742	01-Oct-2016	08-Dec-2016	
70-7-0700-8710	Kingsville Water Tower				2,174.12
150365 ONTARIO CLEAN WATER AGENCY					
INV000090081	NOV/16 OPER&MTCE	742	30-Nov-2016	08-Dec-2016	
70-5-0700-6720	002071 OCWA Operating Contract				219,455.51
160280 PHASOR INDUSTRIAL					



Vendor : 001410 To PT00000109
 Batch : All
 Department : All

Cheque Print Date : 08-Dec-2016 To 08-Dec-2016
 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								
16510	DIESEL GENERATOR (400KW)					742 24-Nov-2016	08-Dec-2016	
70-7-0700-8030				Machinery & Equipment				135,131.05
170500 QUEENS AUTO SUPPLY								
6085-134909 #	JUMBO WRENCH SET - MICROSTRAINER REMOVAL					742 23-Nov-2016	08-Dec-2016	
70-7-0700-8745	700130			Treatment Plant				206.17
180325 RICOH CANADA INC								
SCO91350778	NOV/16 COPIER CONTRACT					742 30-Nov-2016	08-Dec-2016	
70-5-0700-7010	002070	002060		Office Supplies				97.52
Department Totals :								403,878.50



Vendor : 001410 To PT00000111

Batch : All

Department : All

Cheque Print Date : 15-Dec-2016 To 15-Dec-2016

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				
DEPARTMENT 0700	Union Water System				
020015 CECIL BAILEY EXCAVATING INC					
6375 BACK SHOP - CEMENT PADS		763	01-Nov-2016	15-Dec-2016	
70-7-0700-8745 700020 Treatment Plant					19,549.00
030515 CUETS FINANCIAL					
AIR CANADA-I BAGGAGE-WINDSOR-CALGARY - CWN WORKSHOP		763	04-Nov-2016	15-Dec-2016	
70-5-0700-7040 002070 002009 Training					28.25
AIR CANADA-I BAGGAGE-CALGARY-WINDSOR-CWN WORKSHOP		763	04-Nov-2016	15-Dec-2016	
70-5-0700-7040 002070 002009 Training					28.25
ASSOC.CAB-V TAXI - CDN WATER NETWORK WORKSHOP		763	01-Nov-2016	15-Dec-2016	
70-5-0700-7040 002070 002009 Training					40.10
AWWA-700124 AWWA/OWWA MEMBERSHIP FEE		763	10-Nov-2016	15-Dec-2016	
70-5-0700-7020 002070 Dues, Memberships and Subscriptions					264.35
BEAR&KILT-NC MEAL - WTP TOUR CITY OF CALGARY		763	01-Nov-2016	15-Dec-2016	
70-5-0700-7040 002070 002001 Training					27.45
70-5-0700-7040 002070 002001 Training					5.49
CHECKER CAI TAXI - WATER TREATMENT TOUR&MTGS		763	01-Nov-2016	15-Dec-2016	
70-5-0700-7040 002070 002009 Training					22.40
CHECKER CAI TAXI TO AIRPORT - CDN WATER NETWORK		763	04-Nov-2016	15-Dec-2016	
70-5-0700-7040 002070 002009 Training					36.00
CHELSEA-232 ROOM - CWWA DRINKING WATER CONF.		763	15-Nov-2016	15-Dec-2016	
70-5-0700-7050 002070 002002 Conferences					268.76
CRAFT BEER I MEAL - CDN WATER NETWORK WORKSHOP		763	01-Nov-2016	15-Dec-2016	
70-5-0700-7040 002070 002001 Training					63.36
CROWN TAXI-I TAXI - CDN WATER CONF.		763	14-Nov-2016	15-Dec-2016	
70-5-0700-7050 002070 002009 Conferences					12.75
CWWA-21151 CWWA DRINKING WATER CONF. REGIST.		763	14-Nov-2016	15-Dec-2016	
70-5-0700-7050 002070 002003 Conferences					593.25
FOOD BASICS COFFEE		763	31-Oct-2016	15-Dec-2016	
70-5-0700-7052 002070 Meeting Expenses					5.88
HYATT REGEN MEALS - CDN WATER NETWORK MTG/WORKSHOPS		763	04-Nov-2016	15-Dec-2016	
70-5-0700-7040 002070 002001 Training					111.95
LUCKY CHOP- LUNCH MTG-OCWA OPER.MGR.		763	15-Nov-2016	15-Dec-2016	
70-5-0700-7052 002070 Meeting Expenses					27.01
70-5-0700-7052 002070 Meeting Expenses					4.04
MARRIOTT-TR MEAL - CWWA DRINKING WATER CONF.		763	15-Nov-2016	15-Dec-2016	
70-5-0700-7050 002070 002001 Conferences					18.08
70-5-0700-7050 002070 002001 Conferences					3.00
PARKING-MAF PARKING - CWWA DRINKING WATER CONF		763	15-Nov-2016	15-Dec-2016	
70-5-0700-7050 002070 002009 Conferences					72.00
TIM HORTONS COFFEE, TIMBITS - ELDER COLLEGE		763	28-Nov-2016	15-Dec-2016	
70-5-0700-7052 002070 Meeting Expenses					42.61
70-5-0700-7052 002070 Meeting Expenses					8.99
YOUR QUICK-I AIRPORT PARKING - CDN WATER NETWORK WORKSHOP		763	05-Nov-2016	15-Dec-2016	
70-5-0700-7040 002070 002009 Training					36.00
070070 GILLETT SHEET METAL LTD					
23295-I WATER METER PARTS		763	15-Nov-2016	15-Dec-2016	
70-7-0700-8750 002205 Watermains					2,334.58
080250 HYDRO ONE NETWORKS INC					
200141677460 NOV/16 HYDRO - RUTHVEN WTP		763	06-Dec-2016	15-Dec-2016	



Vendor : 001410 To PT00000111
 Batch : All
 Department : All

Cheque Print Date : 15-Dec-2016 To 15-Dec-2016
 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				
DEPARTMENT 0700 Union Water System					
70-5-0700-7420	002073 Electricity				53,706.02
200141680692	NOV/16 HYDRO - LOW LIFT	763	06-Dec-2016	15-Dec-2016	
70-5-0700-7420	002073 Electricity				28,112.96
200141690190	NOV/16 HYDRO - METER#26	763	06-Dec-2016	15-Dec-2016	
70-5-0700-7420	002073 Electricity				119.75
160280 PHASOR INDUSTRIAL					
16624	PLUGS - NEW GENERATOR	763	01-Nov-2016	15-Dec-2016	
70-7-0700-8030	Machinery & Equipment				7,994.98
990644 PRO-BID CONTRACTORS LTD 					
1725	METER PIT - CULL&HERITAGE	304	30-Mar-2016	05-May-2016	
70-7-0700-8750	002205 Watermains				2,792.17
190755 SUN LIFE ASSURANCE COMPANY OF CANADA					
DEC-16	UNION WATER LOAN 3724:1	763	09-Dec-2016	15-Dec-2016	
70-5-0700-6000	002020 006901 Debenture Principal				8,610.61
70-5-0700-6100	002010 006901 Debenture Interest				127,954.17
210120 UNION GAS LTD					
NOV-DEC16 17	584.532M3 GAS - COTTAM BOOSTER STN	763	09-Dec-2016	15-Dec-2016	
70-5-0700-7410	002073 Gas				183.35
Department Totals :					253,077.56