

THE UNION WATER SUPPLY SYSTEM

JOINT BOARD OF MANAGEMENT

AGENDA

WEDNESDAY, DECEMBER 20, 2017

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, October 18, 2017
Pages 3 - 6

(D) Business Arising Out of the Minutes:

(E) Items for Consideration:

1. UW/31/17 dated December 15, 2017 re: Status Update of UWSS Operations & Maintenance Activities and Capital Works to December 15, 2017
Pages 7 - 9
2. UW/32/17 dated December 8, 2017 re: Proposed 2018 UWSS Operations and Capital Budget
Pages 10 - 23 - Draft Proposed 2018 UWSS Operations and Capital Budget Report
Pages 24 - 28 - 2018 UWSS Draft Operations & Capital Budget Tables and Details
Pages 29 - 32 - UWSS 6 year Capital Plan Tables and Details
3. Dates for Union Water Supply System Joint Board of Management 2018
For information
Page 33
4. UW/33/17 dated December 15, 2017 re: Payments from October 13 to December 15, 2017
Pages 34 - 41

(F) **New Business:**

(G) **Adjournment:**

(H) **Date of Next Meeting:** January 17, 2018 at 9:00 am in the Kingsville Community Room of the Kingsville Arena

/kmj

THE UNION WATER SUPPLY SYSTEM
JOINT BOARD OF MANAGEMENT
MINUTES OF MEETING
HELD OCTOBER 18, 2017 AT 9 AM
IN KINGSVILLE COMMUNITY ROOM – KINGSVILLE ARENA

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

UWSS Staff: Rodney Bouchard, Manager, Union Water Supply System
Christine Johnson, Recording Secretary

Municipal
Staff Present: Shannon Belleau - Leamington

OCWA Staff
Present: Ken Penney, Susan Budden

Call to Order: 9:03 am

Disclosures of Pecuniary Interest: none

Adoption of Council Minutes:

No. UW-52-17

Moved by: Mayor Paterson

Seconded by: Councillor Patterson

That Minutes of the UWSS Joint Board of Management meeting of September
20, 2017 is received.

Carried

Business Arising Out of the Minutes:

There was none.

Reports and Correspondence

Report UW/28/17 dated October 13, 2017 Status Update of the UWSS Operations & Maintenance Activities and Capital Works to September 13, 2017

The Manager explains to the members of the Board that a new Low Lift Pump #2 has been received. The old pump has been removed and the new pump will be installed next week. He hopes to salvage or recycle the old pump and anticipates that the new pump will provide 20 years of service.

He then discusses several billing meters; Meter #8 has been removed and replaced with a magnetic flow meter, while Meter #27 is scheduled for closer to the end of October for replacement. He anticipates that once all of the meter replacements are complete UWSS will have communication capabilities for all of its meters.

The Manager reminds members of his statement last month regarding the change of coagulant from DelPAC 2020 to Hyperion 1090. He indicates that this change is still in place and this has allowed for the reduction of the aluminum residual. He feels that this process will remain in place until cooler waters prevail in Lake Erie. Once the waters cool UWSS will switch back to its regular coagulant of DelPAC 2020 as it works best in cooler water.

The Manager then reports on an Adverse Water Quality Incident (AWQI) of October 10th. He notes that a coagulant pump malfunctioned and was off for approximately one hour. However, as per regulations coagulant pumps are to run continuously. The Manager notes that a new, mechanically inexperienced operator was working that weekend. The proper alarms sounded and alerted the operator, but other staff had to be called in to make the pump change and this accounted for the time the pump was off. He also confirms that there were no adverse effects to the water quality from this incident. Finally, he confirms that the MOECC has been informed of this incident.

The SCADA system upgrade Request for Proposals (RFP) draft documents have been received and the actual RFP document will be released this Friday. This release will be inviting four (4) or five (5) firms (that have been pre-qualified) to submit their offers. The Manager will be reporting back to the Board once all information is received. He reminds members that there is a budget of \$1.2 million, however the submittals could come in higher or lower. He is not sure where the submittals will come in as this is very specialized work. The RFPs will remain open for approximately one month.

The Manager then reports on updates on the restructuring of the UWSS. He reminds members of last month's meeting with Tom Garner and reports that since then a few things have been achieved in terms of progress. He confirms that a draft financial proposal has been received but a review has not been completed. He also confirms that he has since met with the legal team and they are revising their report that had been prepared in June of 2015. He also states that he met with all four (4) CAOs earlier this week to discuss the UWSS restructuring and while there was some hesitation, due to misinformation, he is hopeful that all members will be satisfied once they receive and

review all of the expert reports. The Manager notes that UWSS can become incorporated immediately leaving everything exactly as it is and work out any policies and such at a later date.

The Manager reported on the flows, noting that they are just above the four (4) year average and still above the budget for the year, so he feels UWSS is in good shape.

There was a brief discussion regarding the new pumps that were put in at the Low Lift and the Coagulant pump that had to be changed out. The Manager explains all of the reasons for making these changes.

No. UW-53-17

Moved by: Councillor Jacobs

Seconded by: Councillor Verbeke

That report UW/28/17 dated October 13, 2017 re: Status Update of the UWSS Operations & Maintenance Activities and Capital Works to October 13, 2017 is received.

Carried (UW/28/17))

Report UW/29/17 dated October 12, 2017 re: CDWI Report for Ontario 2016-2017 and Minister's Annual Report on Drinking Water 2016

The Manager reviews this yearly report, noting that the Chief Drinking Water Inspector's Report is out earlier than usual. He further explains that this is a report that provides a report card on municipal drinking water system, and contained within the report is information on all four (4) municipalities and their testing results. He confirms that over the years of this report municipalities in general are improving their testing results and the same can be said for the four (4) partner municipalities.

The Manager then explains that the Minister's report for 2016 is more a recap on drinking water systems performances over the last year. He confirms that both reports are available through Union Water's website and links were provided to all members.

The Board asks the Manager if there should be some form of press release regarding the good news that UWSS's municipalities have continually improved and continually met that testing standards. The Manager indicates that the information is posted on the UWSS website.

No. UW-54-17

Moved by: Councillor Dun

Seconded by: Mayor Santos

That report UW/29/17 dated October 12, 2017 re: CDWI Report for Ontario 2016-2017 and Minister's Annual Report on Drinking Water 2016 is received.

Carried (UW/29/17)

Report UW/30/17 dated October 13, 2017 re: Payments from September 15 to October 13, 2017

There is a brief discussion regarding the cost of electricity. The Manager explains that UWSS has been working hard to reduce electrical costs. There was then a general discussion regarding industrial class of electricity use in Ontario and how to save money. He notes that Co-Generation is still an option and does plan on reporting to the board at some point on a potential project, perhaps once the potential UV system is in place.

No. UW-55-17

Moved by: Councillor Neufeld

Seconded by: Councillor Hammond

That the report UW/30/17 dated October 13, 2017 re: Payments from September 15 to October 13, 2017 is received.

Carried (UW/30/17)

Adjournment**No. UW-56-17**

Moved by: Mayor McDermott

Seconded by: Councillor Diemer

That the meeting adjourn at 9:26 am.

Carried

Date of Next Meeting: Wednesday, November 15, 2017 Kingsville Community Room, Kingsville Arena

/kmj

UW/31/17

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

From: Rodney Bouchard, Union Water Manager

Date: December 15, 2017

Re: Status Update of UWSS Operations & Maintenance Activities and Capital Works to December 15, 2017



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 October 18th, 2017.

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. The new Low lift pump #2 purchased from ASL Roteq has been installed. However, a vibration was noted recently during operation of the pump. ASL Roteq will send an engineer in early January 2018 to evaluate the vibration source and complete any necessary adjustments and/or repairs.
3. As of December 1st, 2017, master meter #27 was upgraded to a new state of the art magnetic flow meter.
4. On November 6th, 2017 water treatment plant operations ceased using Hyperion 1090 as the temporary coagulant and returned to DelPAC 2020 as the primary coagulant. This change was enabled due to the decrease in raw temperature and pH. The plant effluent aluminum residual has remained below the objective guidelines since the coagulant change.
5. The Microstrainer #1 decommissioning and floor enclosure has been completed.
6. Annual maintenance on Clarifiers#1, #2 and #4 was completed in November 2017. Clarifier #2 needed a new blow off valve actuator and a new sump pump installed. These repairs have been completed.

Re: UW/31/17 - Status Update of UWSS Operations & Maintenance Activities and Capital Works to December 15, 2017

7. Security cameras have been installed at the Albuna Water tower due to an attempted break in at the water tower during the November 11-12, 2017 weekend. This water tower is in a fenced but remote area on the Windsor Essex Solid Waste Authority property on County Rd 31. Unauthorized entry into this tower is dangerous as people could try and climb the internal ladder without safety equipment. These cameras will be monitored 24 hrs by operational staff at the plant.
8. MOE Inspection reports were received in October 2017 for Kingsville and Leamington. Leamington received a 100% rating and Kingsville received a 97.52 % rating.
9. Annual maintenance on the filters was started at the beginning of December 2017 and will be completed in January 2018.
10. The Request for Proposal Document (RFP) for SCADA System Upgrade closed on December 13th, 2017. Proposals were received at the Associated Engineering office in Markham, Ontario. The proposals are currently being reviewed and evaluated by a team that consists of UWSS, OCWA (Union) and Associated Engineering representatives.
11. The Associated Engineering Preliminary Design report for the CO₂ raw water pH adjustment system dated October 6th, 2017 was reviewed and revised in an updated report dated November 24th, 2017. UWSS and OCWA (Union) operations staff are currently reviewing and evaluating the options presented in the Nov 24th report. The construction of a CO₂ pH raw water adjustment system has been included in the proposed 2018 UWSS Capital Budget with a proposed budget of \$950,000. A more detailed report on the CO₂ pH adjustment system will be provided to the Board once the detailed review of AE report is completed.

Comparative Flows for 2013 through 2017 in Millions of Imperial Gallons (for the period 1 January to December 14, 2017)

| | 2013 | 2014 | 2015 | 2016 | 2017 |
|-------------------|---------|---------|---------|---------|---------|
| Flow to Date (MG) | 3038.47 | 3161.14 | 3077.20 | 3284.15 | 3256.66 |
| Max Day (MGD) | 15.30 | 15.70 | 15.36 | 16.75 | 16.62 |
| Min Day (MGD) | 4.65 | 4.19 | 3.79 | 4.29 | 4.56 |
| Average Day (MGD) | 8.73 | 9.08 | 8.84 | 9.41 | 9.36 |
| No of Days | 348 | 348 | 348 | 349 | 348 |

Flows to date are down 27.49 MIG or 0.83% from last year. The 2017 flows to date are up 3.71% over the previous 4 year average

Re: UW/31/17 - Status Update of UWSS Operations & Maintenance Activities and
Capital Works to December 15, 2017

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\2017\uw31-17 operations report for december 2017.revised.docx

"DRAFT"

UW/32/17

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

FROM: Rodney Bouchard, Union Water Manager

DATE: December 8th, 2017

RE: Proposed 2018 UWSS Operations and Capital Budget Report



RECOMMENDATION

That the Union Water Supply System Joint Board of Management (UWSS Board) adopts the Draft 2018 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 \$2.72 per thousand gallons (\$0.5978 per cubic metre) to \$2.77 per thousand gallons (\$0.6088 per cubic metre) to be put into effect on April 1, 2018.

REPORT HIGHLIGHTS

- Potable water demand from UWSS is anticipated to be approximately 3,300,000,000 imperial gallons (15,015,000 m³) for 2018. This is roughly based on the average annual demand for the previous 4 years.
- UWSS Revenue for 2018 is estimated at \$9,378,000. This includes estimated wholesale rate revenue of \$9,004,000, investment income of \$350,000 and sundry revenue of \$24,000.
- Operational and Debt Service Expenditures for 2018 are estimated at \$7,452,000. This includes \$5,139,000 for Operational Expenses and \$2,313,000 for Debt Service.
- 2018 Revenue versus Operational and Debt Service Expenditures are anticipated to result in a surplus of approximately \$1,926,000 for 2018 Fiscal Year;
- A Capital Program of \$3,905,000 is proposed for 2018. This includes large expenditures for Essex Water Re-coating (\$1,025,000) and complete upgrade of SCADA system (\$1,220,000) that were initially approved for 2017 UWSS capital budget but were delayed to 2018 for various reasons. The capital budget also includes a proposed \$950,000 budget for construction and implementation of a CO₂ gas based raw water pH adjustment system.
- The proposed Capital Program for 2018 will result in a budgeted net deficit of **\$1,979,000** for 2018 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 \$2.77 per 1000 gallons (\$0.6088/m³) to take effect on April 1, 2018.

December 8, 2017 - UW/32/17

Re: Proposed 2018 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 2017.

This proposed budget is being presented to the UWSS board for consideration. The proposed 2018 budget is outlined to provide details in regards to the following:

- Anticipated revenue for 2018 from wholesale of water to the partner municipalities;
- Anticipated operating expenditures for 2018 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 2018 for UWSS;
- Forecasted Operational Expenditures and Capital Works program for 2018-2023.

DISCUSSION:

The Proposed 2018 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 2018 that includes projects with large expenditures such as the construction and implementation of a carbon dioxide gas (CO₂) based raw water pH adjustment system, and large projects that were initially approved and planned for 2017 (i.e. Essex Water Tower re-coating project and Upgrades to the SCADA System) but were delayed for various reasons.

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 2018. The total projected expenditures for 2018 is budgeted at approximately at \$7,452,000.

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Re: Proposed 2018 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, Residuals Ponds Maintenance, Carbon Dioxide (for proposed raw water pH adjustment system) and Debt Service. The total estimated fixed expenditures budget for 2018 is \$7,242,491. The fixed expenditures consist of the following components:

| | |
|--|--------------------|
| OCWA Operations Budget: | \$2,876,500 |
| UWSS Administrative Budget: | \$ 502,250 |
| Electricity and Natural Gas: | \$1,250,000 |
| Residuals Pond Maintenance: | \$ 150,000 |
| Carbon Dioxide (CO ₂): | <u>\$ 150,000</u> |
| <i>Total Operations, Administrative, Energy:</i> | <i>\$4,928,750</i> |
| Debt Service: | |
| Sunlife Debt (MFP Debt): | \$2,313,441 |
| Woodslee Credit Union Loan: | \$0 |
| OSIFA (municipal debentures): | \$0 |
| Leamington Debt Repayment: | <u>\$0</u> |
| <i>Total Debt Service:</i> | <i>\$2,313,441</i> |
| Total Fixed Costs: | \$7,242,191 |

Programs and Studies

A number of Programs and Studies are included in the 2018 Budget. These studies are designed to achieve one of the following goals:

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Re: Proposed 2018 UWSS Operations and Capital Budget

- 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.

For the 2018 budget year, \$210,000 has been allocated to Programs and Studies. The following studies are proposed or currently in place:

Water Demand/Loss: This work is being conducted with assistance from various partners (OCWA, Universities, Consultants, local municipalities) to evaluate water demand/usage from residential, commercial, industrial and agri-food sectors and to assess water loss throughout the extended distribution system. The data will be used to refine the UWSS' Master Plan and the UWSS hydraulic water model, and to help plan future water transmission/distribution main works.

A budget of \$100,000 is being proposed in the 2018 UWSS Budget for this work.

Water Quality Investigations: This work included 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.

A budget of \$35,000 is being proposed in the 2018 UWSS Budget for this work

Operations Contract Assessment For the 2018 Budget year, \$25,000 is being proposed for evaluation of the existing operations contract between UWSS and OCWA that is scheduled to end on December 31st, 2018. The assessment will focus on what works with the existing contract and identify areas of improvement. This assessment would also include a cursory evaluation of alternatives to the existing contracting arrangement for UWSS operations.

Dechlorination System Evaluation and Preliminary Engineering: As part of the UWSS Municipal Drinking Water License (MDWL) and Drinking Water Works Permit (DWWP) renewal that was completed in 2017, the UWSS is required to ensure that all water treatment process water discharged to the environment is free of chlorine. Currently, a manual system that includes dechlorination "pucks" are used to dechlorinate residuals pond water that eventually discharges to Lake Erie

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Re: Proposed 2018 UWSS Operations and Capital Budget

via discharge pipe. The purpose of this evaluation is to identify a more permanent process to dechlorinate residuals pond discharge water.

A budget of \$50,000 is proposed in the 2018 budget to complete this work.

Operating Expenditure Summary

| | |
|---|--------------------|
| Fixed Expenditures: | \$7,242,191 |
| Programs and Studies: | <u>\$ 210,000</u> |
| Total Operating Expenditures for 2017: | \$7,452,191 |

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 2018 is \$9,378,200

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.

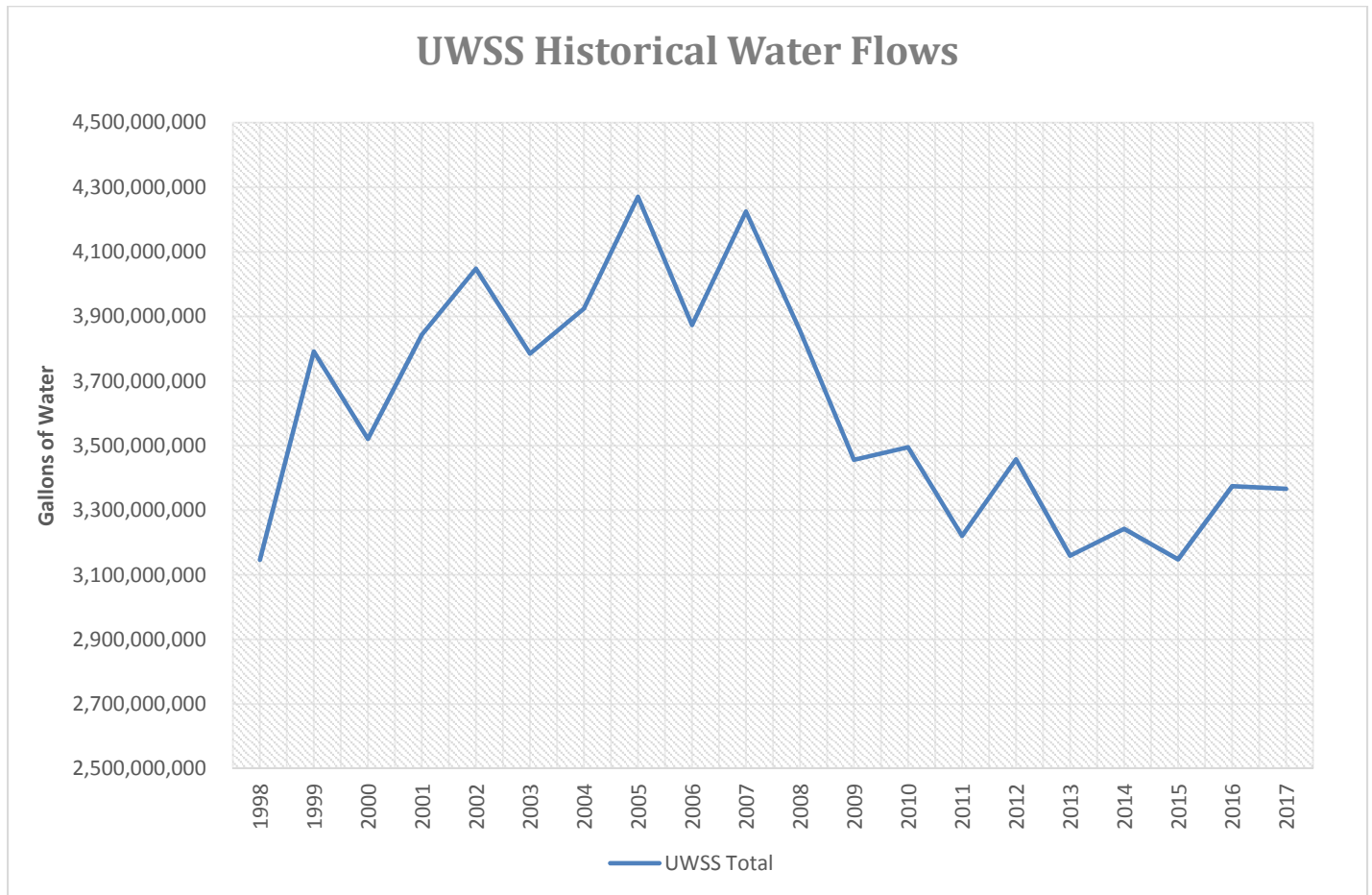
Water Usage

The projected water "usage" by municipal owners for 2018 is 3,300,000,000 imperial gallons (15,015,000 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 1998-2017.

Figure 2 depicts the water usage trend by each municipal partner from 1998-2017.

Figure 1



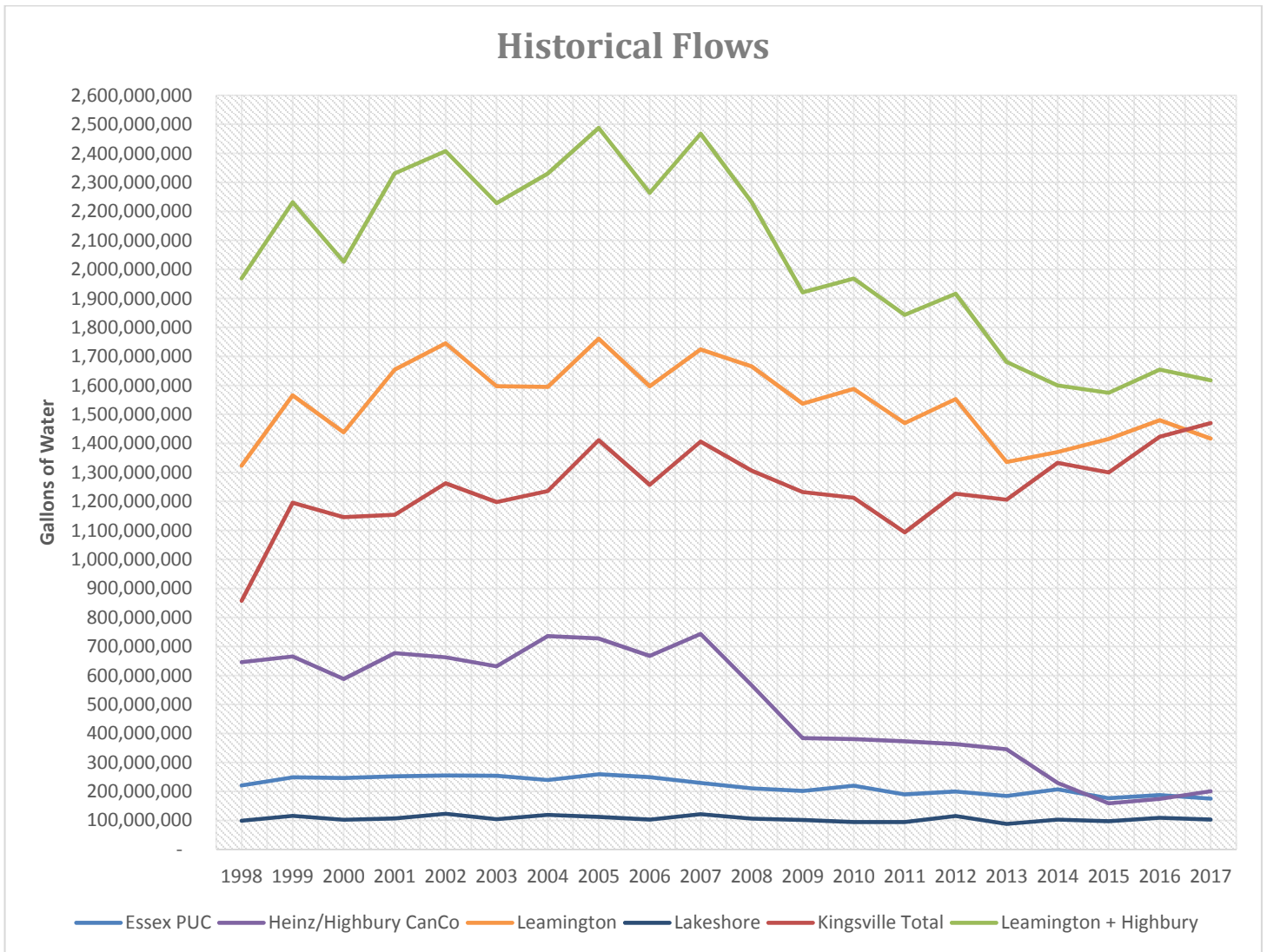
Wholesale Water Rates

For the 2018 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 rate provided to Highbury Canco. This would result in a 2018 UWSS wholesale rate of \$2.77 per 1000 gallons (\$0.6088/m³) and Highbury Canco preferred rate of \$2.05 per 1000 gallons (\$0.4505/m³). It is proposed that the increase for these rates be applied at the start of the 2nd quarter 2018, thus on April 1, 2018.

The following provides 2018 estimates for water rate revenue:

| | | |
|--|--|--------------------|
| Municipal wholesale: | 3,110,000,000 Imp. Gals @ \$2.77/1000 gals = | \$8,617,700 |
| Highbury Canco: | 190,000,000 Imp Gals @ \$2.00/1000 gals = | <u>\$389,500</u> |
| Total Water Rate Revenue Total: | | \$9,004,200 |

Figure 2



Miscellaneous Revenue

Miscellaneous revenue includes income from investments and sundry income.

| | |
|-------------------------------|-------------------|
| Investment (interest) income: | \$ 350,000 |
| Sundry revenue: | <u>\$ 24,000</u> |
| Total Misc. Revenue: | \$ 374,000 |

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Re: Proposed 2018 UWSS Operations and Capital Budget

Sundry revenue is revenue received from various sources such as lease of space on water towers for telecommunications equipment. The estimated sundry revenue for 2018 is \$24,000 and is roughly based on 2017 revenue.

Revenue Summary

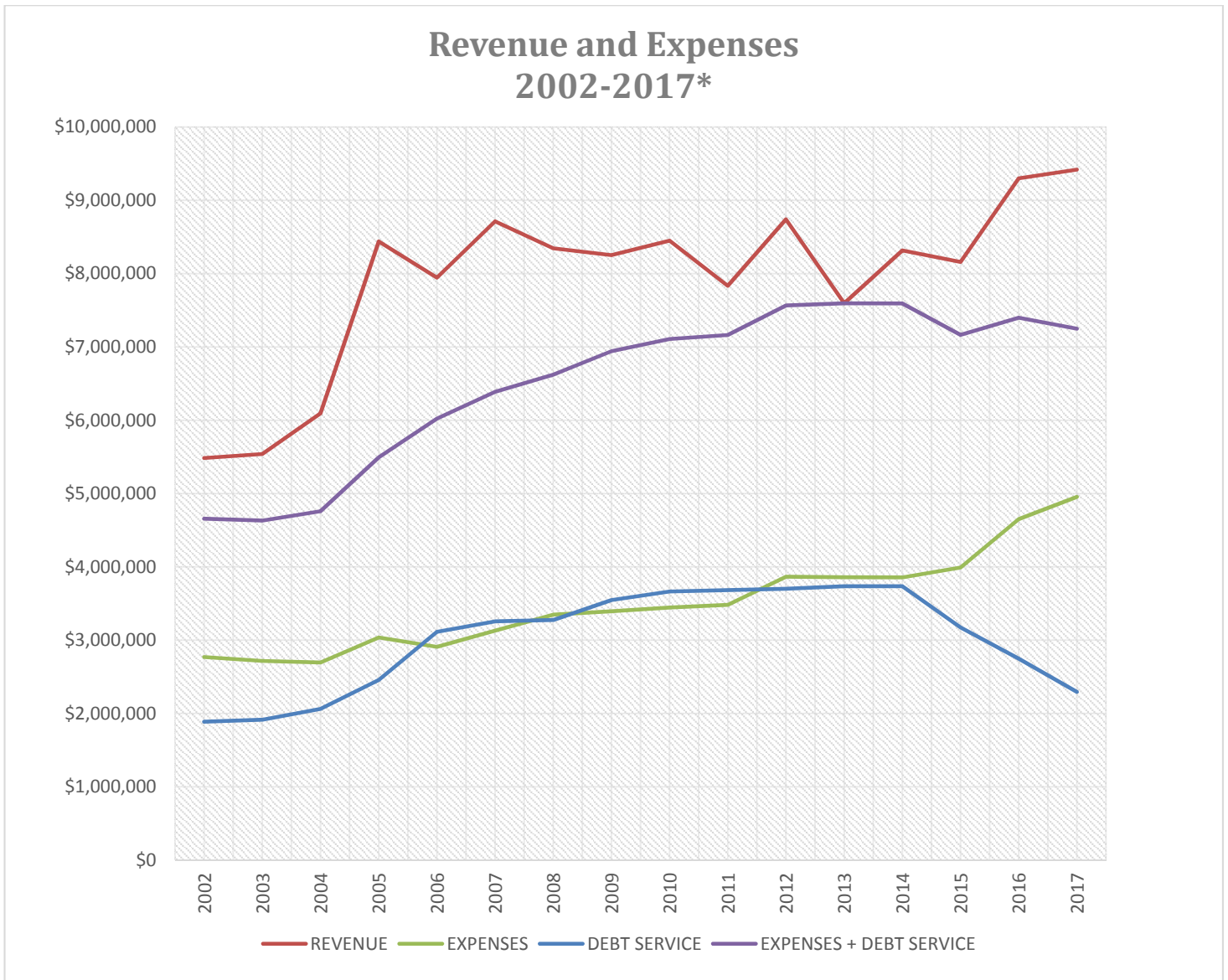
| | |
|--|--------------------|
| Wholesale Rate Revenue: | \$9,004,200 |
| Miscellaneous Revenue : | <u>\$ 374,000</u> |
| Total Estimated Revenue for 2018: | \$9,378,200 |

REVENUE VERSUS OPERATING EXPENDITURES

A comparison of Revenue versus Expenditures for 2018 budget is as follows. It should be noted that the total estimated expenditures also include the proposed budget for operational Programs and Studies of \$210,000.

| | |
|-------------------------------|--------------------|
| Total Estimated Revenue: | \$9,378,200 |
| Total Estimated Expenditures: | <u>\$7,452,191</u> |
| Surplus/(Deficit): | \$1,926,009 |

Figure 3



CAPITAL PROGRAM

The proposed Capital Program for 2018 is budgeted at \$3,905,000. This includes major Capital Equipment Purchases (e.g. vehicles, heavy equipment) and major Capital Works.

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Re: Proposed 2018 UWSS Operations and Capital Budget

Capital Works:

The following major capital works projects are proposed for 2018:

| | |
|--|--------------------|
| SCADA System Upgrade - New SCADA System: | \$1,220,000 |
| Essex Water Tower Re-Coating: | \$1,025,000 |
| CO2 Raw Water pH Adjustment System: | \$ 950,000 |
| Filter Media Replacement - Filters #6 & #8: | \$ 140,000 |
| Distribution System Maintenance: | \$ 100,000 |
| High Lift Pump #7 Install: | \$ 85,000 |
| Master Water Meter Communication System: | \$ 50,000 |
| Laboratory Upgrades: | \$ 50,000 |
| Security System Install: | \$ 45,000 |
| Turbidity Meters for Filter Backwash: | \$ 45,000 |
| Low Lift Pump #1 Major Maintenance: | \$ 35,000 |
| Maintenance Shop Roof: | \$ 30,000 |
| Lighting Upgrades: | \$ 30,000 |
| Microstrainer #2 Floor: | \$ 30,000 |
| Kitchen Upgrades: | \$ 25,000 |
| Blue-Green Algae Chlorophyll Instrument - Low Lift | \$ 25,000 |
| Cathodic Protection System - Leamington Tower: | <u>\$ 20,000</u> |
| Total Capital Works for 2018: | \$3,905,000 |

BUDGET SUMMARY

The proposed 2018 budget is summarized as follows:

| | |
|---|----------------------|
| Total Estimated Revenue: (includes wholesale rate revenue and miscellaneous revenue) | \$3,004,200 |
| Total Estimated Operating Expenditures: (includes Operations Contract, UWSS Admin, Programs & Studies) | <u>(\$7,452,191)</u> |
| Revenue versus Operating Expenditures: Surplus/ (Deficit) | \$1,926,009 |

December 8, 2017 - UW/32/17

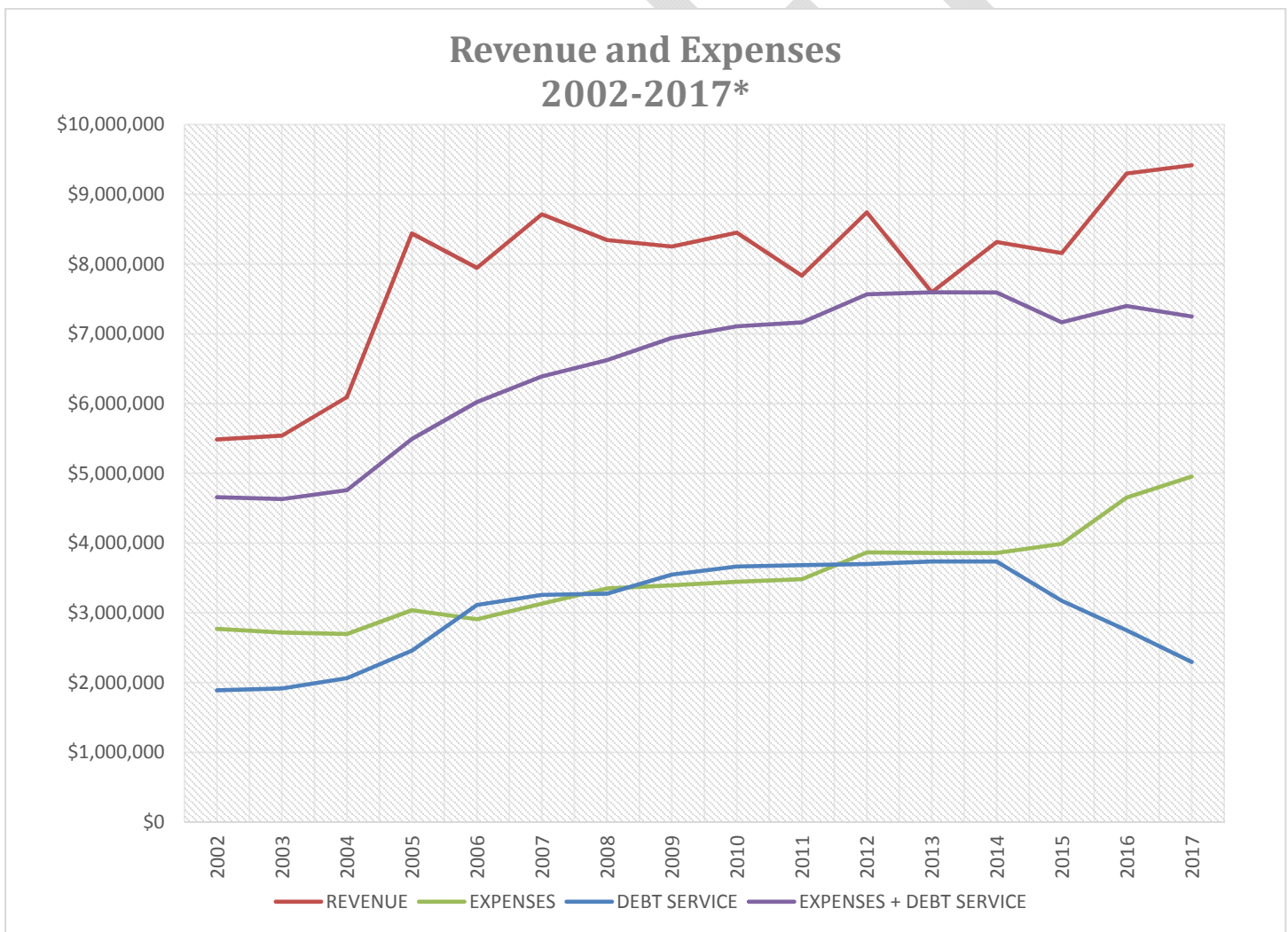
Re: Proposed 2018 UWSS Operations and Capital Budget

| | |
|---|----------------------|
| Capital Program: (includes Capital Purchases and Capital Works) | <u>(\$3,905,000)</u> |
| NET SURPLUS/ (DEFICIT): (Operating surplus/deficit less Capital Program) | (\$1,978,991) |

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

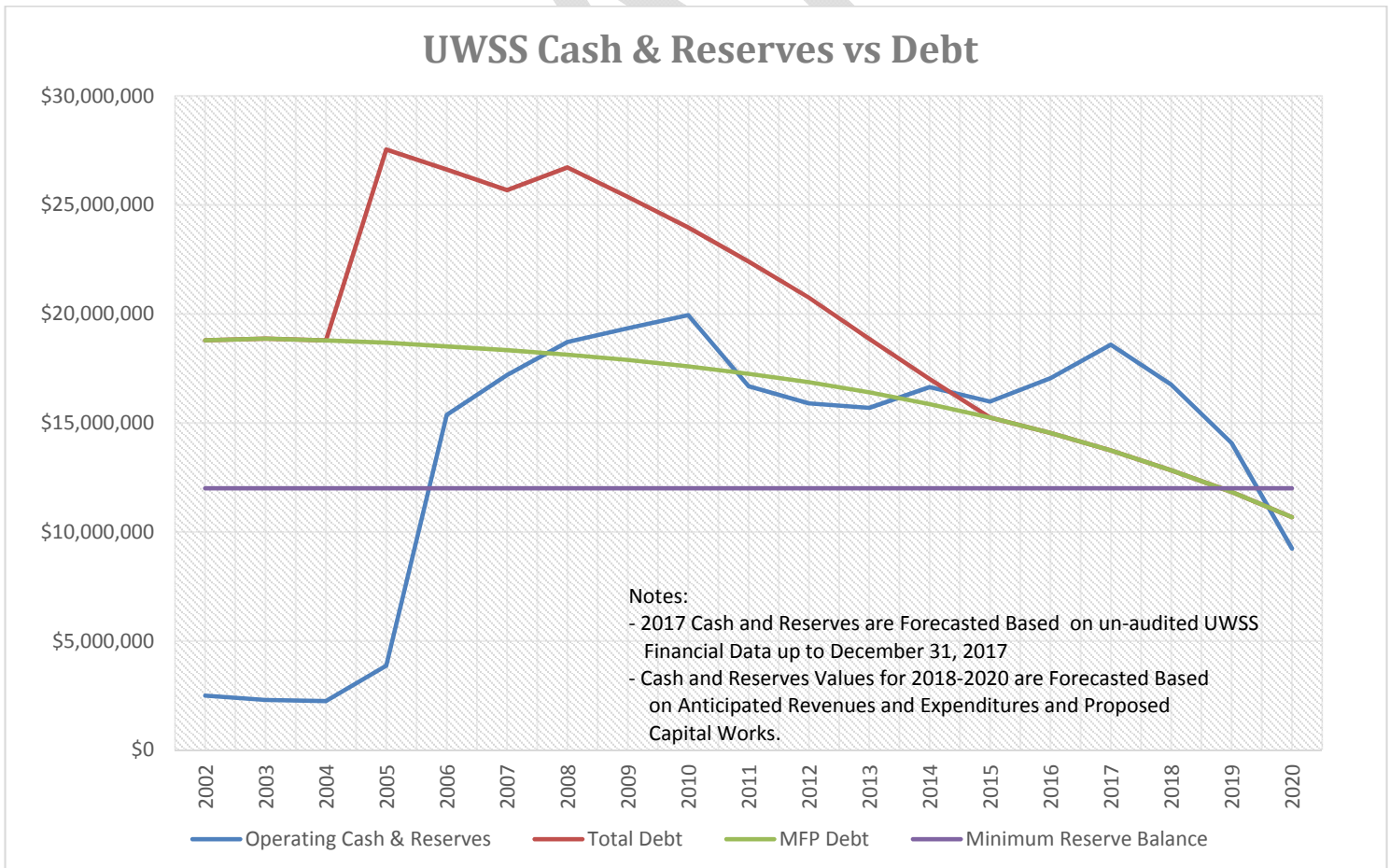
Cash and Reserves for UWSS for fiscal year-end 2017 are forecasted to be approximately \$18,500,000. It should be noted that of the estimated \$18,500,000 in available cash and reserves, \$10,000,000 is currently invested in a GIC until April 2022. Thus, approximately \$8,500,000 in cash and reserves are available for use to fund UWSS operations and capital works.

The 2018 Operating and Capital Budget projects a Net Deficit of (\$1,978,991) for 2018 year end. Thus, it is anticipated that UWSS cash and equivalents at the end of 2018 will decrease to approximately \$6,500,000.

Based on debt repayment schedules, the total UWSS long term debt balance as of January 2018 is \$13,756,544 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



December 8, 2017 - UW/32/17

Re: Proposed 2018 UWSS Operations and Capital Budget

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 (2018-2023) for the UWSS. This Plan reflects the UWSS Manager's intention to undertake upgrades and improvements to the UWSS to address lifecycle replacement/upgrade issues and to improve water treatment, storage and transmission efficiencies.

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

| <u>Year</u> | <u>Proposed Capital Works</u> | <u>Estimated Cost</u> |
|-------------|--|-----------------------|
| 2019 | - Clarifier Retrofit to Dissolved Air Flootation (DAF) | \$2,000,000 |
| | - Chlorine Gas System Retrofit with Dry Scrubber | \$1,000,000 |
| | - Kingsville Tower Re-coating | \$1,100,000 |
| 2020 | - UV Disinfection System in Primary Reservoir | \$5,500,000 |
| 2021 | - Second Clarifier Retrofit to DAF | \$2,000,000 |
| | - Residuals Management System Upgrades | \$1,750,000 |
| 2022 | - 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.

December 8, 2017 - UW/32/17

Re: Proposed 2018 UWSS Operations and Capital Budget

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
rb/kmj

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DRAFT

**2018 UWSS DRAFT OPERATIONS AND CAPITAL BUDGET
TABLES AND DETAILS**

**UNION WATER SUPPLY SYSTEM JOINT BOARD OF MANAGEMENT
2018 Draft Budget
Flows and Revenue**

| Flow Metering Location | 2017 Approved Budget | 2017 As of Dec. 5, 2017 | 2017 Percent of Budgeted Demand | 2017 Projected to Dec. 31, 2017 | 2018 \$0.05/1000 Gallon Rate Increase on Rate 1 | 2019 \$0.05/1000 Gallon Rate Increase on Rate 1 | 2020 \$0.05/1000 Gallon Rate Increase on Rate 1 |
|------------------------|-------------------------|-------------------------------|--|---------------------------------------|--|--|--|
| Essex PUC | 175,000,000 | 165,218,900 | 94.4% | 175,461,482 | 175,000,000 | 175,000,000 | 175,000,000 |
| Gosfield N. Twsp | 120,000,000 | 132,344,190 | 110.3% | 138,856,850 | 135,000,000 | 135,000,000 | 135,000,000 |
| Gosfield S. Twsp | 1,070,000,000 | 1,124,382,860 | 105.1% | 1,189,999,300 | 1,150,000,000 | 1,150,000,000 | 1,150,000,000 |
| Highbury CanCo | 165,000,000 | 191,261,580 | 115.9% | 200,591,960 | 190,000,000 | 190,000,000 | 190,000,000 |
| Kingsville PUC | 140,000,000 | 132,888,360 | 94.9% | 141,126,642 | 140,000,000 | 140,000,000 | 140,000,000 |
| Leamington PUC | 1,430,000,000 | 1,346,658,540 | 94.2% | 1,416,895,560 | 1,410,000,000 | 1,410,000,000 | 1,410,000,000 |
| Lakeshore | 100,000,000 | 97,053,550 | 97.1% | 103,070,288 | 100,000,000 | 100,000,000 | 100,000,000 |
| Total Flow: | 3,200,000,000 | 3,189,807,980 | 99.7% | 3,366,002,082 | 3,300,000,000 | 3,300,000,000 | 3,300,000,000 |
| Rate 1 Flow | 3,035,000,000 | 2,998,546,400 | 98.8% | 3,165,410,122 | 3,110,000,000 | 3,110,000,000 | 3,110,000,000 |
| Rate 1 | \$2.72 | \$2.72 | | \$2.72 | \$2.77 | \$2.82 | \$2.87 |
| Rate 1 Revenue | \$8,255,200 | \$8,156,046 | 98.8% | \$8,609,916 | \$8,614,700 | \$8,770,200 | \$8,925,700 |
| 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 | 165,000,000 | 191,261,580 | 115.9% | 200,591,960 | 190,000,000 | 165,000,000 | 165,000,000 |
| Highbury CanCo Rate | \$2.00 | \$2.00 | | \$2.00 | \$2.05 | \$2.10 | \$2.15 |
| Highbury CanCo Revenue | \$330,000 | \$382,523 | 115.9% | \$401,184 | \$389,500 | \$346,500 | \$354,750 |
| Lifecycle Rate | \$0.24 | \$0.24 | | \$0.24 | \$0.24 | \$0.24 | \$0.24 |
| | \$768,000 | \$765,554 | 99.7% | \$807,840 | \$792,000 | \$792,000 | \$792,000 |
| Total Revenue | \$8,585,200 | \$8,538,569 | 99.5% | \$9,011,099 | \$9,004,200 | \$9,116,700 | \$9,280,450 |

UNION WATER SUPPLY SYSTEM JOINT BOARD OF MANAGEMENT

2018 Draft Budget
Budget Summary

| | 2017 | 2017 | 2017 | 2017 | 2018 | 2019 | 2020 |
|---|---------------------|--------------------|----------------------------|----------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | Approved Budget | As of Dec 5, 2017 | Percent of Approved Budget | Projected to December 31st, 2017 | 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 |
| Wholesale Rate Billings | \$8,585,200 | \$8,538,569 | 99.5% | \$9,011,099 | \$9,004,200 | \$9,116,700 | \$9,280,450 |
| Investment Income | \$232,000 | \$321,700 | 138.7% | \$382,000 | \$350,000 | \$290,000 | \$290,000 |
| Sundry revenue | \$24,000 | \$20,621 | 85.9% | \$24,500 | \$24,000 | \$24,480 | \$24,970 |
| TOTAL REVENUES | \$8,841,200 | \$8,880,890 | 100.4% | \$9,417,599 | \$9,378,200 | \$9,431,180 | \$9,595,420 |
| OPERATING EXPENDITURE | | | | | | | |
| General Administration | \$476,946 | \$428,120 | 89.8% | \$458,290 | \$482,250 | \$491,895 | \$501,733 |
| Miscellaneous Legal/Professional fees | \$20,000 | \$9,926 | 49.6% | \$11,000 | \$20,000 | \$20,000 | \$20,000 |
| OCWA Operating Contract | \$2,766,240 | \$2,535,720 | 91.7% | \$2,766,240 | \$2,876,500 | \$2,934,030 | \$2,992,711 |
| Programs and Studies | \$507,575 | \$339,349 | 66.9% | \$507,575 | \$210,000 | \$175,000 | \$285,000 |
| Residuals Ponds Maintenance | \$0 | \$0 | 0.0% | \$0 | \$150,000 | | |
| Electricity and Natural Gas | \$1,250,000 | \$1,018,282 | 81.5% | \$1,211,000 | \$1,250,000 | \$1,300,000 | \$1,325,000 |
| TOTAL OPERATING EXPENDITURES | \$5,020,762 | \$4,331,398 | 86.3% | \$4,954,105 | \$4,988,750 | \$4,920,925 | \$5,124,444 |
| Debt Service | \$2,294,701 | \$2,157,019 | 94.0% | \$2,294,701 | \$2,313,441 | \$2,332,441 | \$2,379,089 |
| TOTAL DEBT SERVICE EXPENDITURES | \$2,294,701 | \$2,157,019 | 94.0% | \$2,294,701 | \$2,313,441 | \$2,332,441 | \$2,379,090 |
| CAPITAL EXPENDITURE | | | | | | | |
| Capital Repair, Maintenance & Upgrade Works | \$3,095,000 | \$602,119 | 19.5% | \$631,487 | \$2,955,000 | \$1,865,000 | \$570,000 |
| New Capital Works | \$0 | \$0 | - | \$0 | \$950,000 | \$3,000,000 | \$6,355,000 |
| Contingency | | | | | | | |
| TOTAL CAPITAL EXPENDITURES | \$3,095,000 | \$602,119 | 19.5% | \$631,487 | \$3,905,000 | \$4,865,000 | \$6,925,000 |
| NET SURPLUS/(DEFICIT) | -\$1,569,263 | \$1,790,354 | - | \$1,537,306 | -\$1,828,991 | -\$2,687,186 | -\$4,833,114 |

UNION WATER SUPPLY SYSTEM JOINT BOARD OF MANAGEMENT

2018 Draft Budget

Operations and Debt Detail

| Number | Account Description | 2017 | 2017 | 2017 | 2017 | 2018 | 2019 | 2020 |
|--|--|--------------------|--------------------|----------------------------|----------------------------------|--|--|--|
| | | Approved Budget | As of Dec 5, 2017 | Percent of Approved Budget | Projected to December 31st, 2017 | 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 | \$8,585,200 | \$8,538,569 | 99.5% | \$9,011,099 | \$9,004,200 | \$9,116,700 | \$9,280,450 |
| | | \$8,585,200 | \$8,538,569 | 99.5% | \$9,011,099 | \$9,004,200 | \$9,116,700 | \$9,280,450 |
| MISCELLANEOUS REVENUES | | | | | | | | |
| 0700-4100 | Investment Income (Operations) | \$232,000 | \$321,700 | 138.7% | \$382,000 | \$350,000 | \$25,000 | \$25,000 |
| 0700-3999 | Sundry revenue | \$24,000 | \$20,621 | 85.9% | \$24,500 | \$24,000 | \$24,000 | \$24,000 |
| | | | | | | | \$80,000 | \$80,000 |
| | | \$256,000 | \$342,321 | 133.7% | \$406,500 | \$374,000 | \$129,000 | \$129,000 |
| | TOTAL REVENUES : | \$8,841,200 | \$8,880,890 | 100.4% | \$9,417,599 | \$9,378,200 | \$9,245,700 | \$9,409,450 |
| EXPENDITURE ACCOUNTS | | | | | | | | |
| WAGES AND BENEFITS | | | | | | | | |
| 0700-5000 | Salaried | \$166,500 | \$149,139 | 89.6% | \$167,300 | \$170,500 | \$173,910 | \$177,388 |
| | Part time | \$0 | \$0 | - | \$0 | \$0 | \$0 | \$0 |
| 0700-5200 to 5210 | Benefits - Full time | \$47,696 | \$42,076 | 88.2% | \$48,336 | \$49,500 | \$50,490 | \$51,500 |
| | Benefits - Part time | \$0 | \$0 | - | \$0 | \$0 | \$0 | \$0 |
| | | \$214,196 | \$191,215 | 89.3% | \$215,636 | \$220,000 | \$224,400 | \$228,888 |
| OFFICE OVERHEAD, RENTS AND SERVICES | | | | | | | | |
| 0700-7010 | Office supplies | \$2,000 | \$868 | 43.4% | \$1,000 | \$2,000 | \$2,000 | \$2,000 |
| 0700-7015 | Board expenses | \$1,000 | \$0 | 0.0% | \$0 | \$1,500 | \$1,500 | \$1,500 |
| 0700-7020 | Dues, Memberships, Subsc | \$3,500 | \$5,675 | 162.1% | \$5,900 | \$5,000 | \$3,500 | \$3,500 |
| 0700-7030 | Travel & Mileage | \$2,500 | \$1,222 | 48.9% | \$1,500 | \$2,000 | \$1,500 | \$1,500 |
| 0700-7040 | Training | \$5,000 | \$3,100 | 62.0% | \$4,700 | \$6,000 | \$6,000 | \$6,000 |
| 0700-7050 | Conferences | \$5,000 | \$3,680 | 73.6% | \$4,900 | \$6,000 | \$6,000 | \$6,000 |
| 0700-7052 | Meeting Expenses | \$2,000 | \$1,905 | 95.3% | \$2,050 | \$2,000 | \$2,000 | \$2,000 |
| 0700-7070 | Uniforms/Clothing | \$500 | \$153 | 30.6% | \$153 | \$500 | \$500 | \$500 |
| 0700-7950 | Legal/Professional fees | \$20,000 | \$9,926 | 49.6% | \$11,000 | \$20,000 | \$20,000 | \$20,000 |
| 0700-7959-002070 | Audit Fees | \$15,000 | \$5,233 | 34.9% | \$7,000 | \$7,000 | \$15,000 | \$15,000 |
| 0700-6750 | Property Taxes | \$145,000 | \$143,276 | 98.8% | \$141,819 | \$145,000 | \$140,000 | \$140,000 |
| 0700-7080 & 7085 | Operational Purchases/Maint. | \$15,000 | \$15,621 | 104.1% | \$15,621 | \$20,000 | \$15,000 | \$15,000 |
| 0700-7090 | Sundry | \$1,000 | \$0 | 0.0% | \$0 | \$250 | \$250 | \$250 |
| 0700-7090 | Leamington Assistance | \$30,000 | \$30,000 | 100.0% | \$30,000 | \$30,000 | \$30,000 | \$30,000 |
| 0700-7110 | Communications | \$1,500 | \$830 | 55.3% | \$1,100 | \$1,500 | \$1,500 | \$1,500 |
| 0700-7120 | Postage & Courier | \$500 | \$132 | 26.4% | \$200 | \$500 | \$500 | \$500 |
| 0700-7130 | Advertising & Promotion | \$7,000 | \$0 | 0.0% | \$1,500 | \$6,500 | \$7,000 | \$7,000 |
| 0700-7140 | Insurance | \$15,000 | \$14,603 | 97.4% | \$14,603 | \$15,000 | \$15,000 | \$15,000 |
| 0700-7130 | Donations & Grants | \$4,000 | \$3,000 | 75.0% | \$3,000 | \$4,000 | \$4,000 | \$4,000 |
| 0700-7230 to 7290 | Office equipment Purchases/Maint. | \$7,250 | \$7,608 | 104.9% | \$7,608 | \$7,500 | \$5,000 | \$5,000 |
| | | \$282,750 | \$246,831 | 87.3% | \$253,654 | \$282,250 | \$276,250 | \$276,250 |
| 0700-6720 | OCWA Operating Union | \$2,766,240 | \$2,535,720 | 91.7% | \$2,766,240 | \$2,876,500 | \$2,934,030 | \$2,992,711 |
| 0700-7410 & 7420 | Electricity and Natural Gas | \$1,250,000 | \$1,018,282 | 81.5% | \$1,211,000 | \$1,250,000 | \$1,250,000 | \$1,250,000 |
| | | \$4,016,240 | \$3,554,002 | 88.5% | \$3,977,240 | \$4,126,500 | \$4,184,030 | \$4,242,711 |
| 0700-7989-002070 | Operational Programs & Studies | \$507,575 | \$339,349 | 66.9% | \$507,575 | \$210,000 | \$175,000 | \$285,000 |
| | Residuals Ponds Maintenance | \$0 | \$0 | 0.0% | \$0 | \$150,000 | \$175,000 | \$120,000 |
| Un-Budgeted Expenditures | | | | | | | | |
| | TOTAL OPERATIONAL EXPENDITURES: | \$5,020,761 | \$4,331,397 | 86.3% | \$4,954,105 | \$4,988,750 | \$5,034,680 | \$5,152,849 |
| | NET OPERATIONAL SURPLUS/(DEFICIT) | \$3,820,439 | \$4,549,493 | 119.1% | \$4,463,494 | \$4,389,450 | \$4,211,020 | \$4,256,601 |
| DEBT SERVICE | | | | | | | | |
| 0700-6000 & 6100 | Sun Life Debt Obligation | \$2,294,701 | \$2,157,019 | 94.0% | \$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: | \$2,294,701 | \$2,157,019 | 94.0% | \$2,294,701 | \$2,313,441 | \$2,332,441 | \$2,379,089 |
| | SURPLUS/(DEFICIT) AFTER DEBT | \$1,525,738 | \$2,392,474 | - | \$2,168,793 | \$2,076,009 | \$1,878,579 | \$1,877,512 |

**Union Water Supply System
2018 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 |
| STUDIES/PROGRAMS | | | | | | | | | | |
| Water Quality (i.e. CWN, Corrosion Monitoring) | \$35,000 | | | | | | | \$35,000 | \$35,000 | \$0 |
| Water Demand/ Loss Study | \$100,000 | | | | | | | \$100,000 | \$100,000 | \$0 |
| UWSS Operations Contract Assessment | \$25,000 | | | | | | | \$25,000 | \$25,000 | \$0 |
| Dechlorination System Evaluation and Preliminary Engineering | \$50,000 | | | | | | | \$50,000 | \$50,000 | \$0 |
| Total Studies/Programs | \$210,000 | | | | | | | \$210,000 | \$210,000 | \$0 |
| CAPITAL WORKS/ MAJOR MAINTENANCE | | | | | | | | | | |
| Low Lift Pump #1 Major Maintenance | | | \$35,000 | | | | | \$35,000 | \$35,000 | \$0 |
| Blue Green Algae/ Chlorophyll Probe - Low lift well | | | \$25,000 | | | | | \$25,000 | \$25,000 | \$0 |
| Microstrainer Floors - Microstrainer #2 | | \$30,000 | | | | | | \$30,000 | \$30,000 | \$0 |
| Filter Media Replacement -Filters 6 and 8 | | \$140,000 | | | | | | \$140,000 | \$140,000 | \$0 |
| Turbidity Meters for Filter Backwash (8 new units) | | \$45,000 | | | | | | \$45,000 | \$45,000 | \$0 |
| High Lift Pump #7 New Pump and Motor | | \$85,000 | | | | | | \$85,000 | \$85,000 | \$0 |
| Kitchen Upgrades | | \$25,000 | | | | | | \$25,000 | \$25,000 | \$0 |
| Laboratory Upgrades | | \$50,000 | | | | | | \$50,000 | \$50,000 | \$0 |
| Maintenance Shop Roof | | \$30,000 | | | | | | \$30,000 | \$30,000 | \$0 |
| Lighting Upgrades | | \$20,000 | \$10,000 | | | | | \$30,000 | \$30,000 | \$0 |
| Essex Water Tower Rehabilitation (interior and exterior) | | | | | | | \$1,025,000 | \$1,025,000 | \$1,025,000 | \$0 |
| Distribution System Maintenance | | | | | | | \$100,000 | \$100,000 | \$100,000 | \$0 |
| Cathodic Protection System for Leamington Water Tower | | | | | | | \$20,000 | \$20,000 | \$20,000 | \$0 |
| Master Water Meter Communication System Improvements | | | | | \$50,000 | | | \$50,000 | \$50,000 | \$0 |
| Security System Install | | | | | \$45,000 | | | \$45,000 | \$45,000 | \$0 |
| SCADA System Upgrade - Complete new system | | | | | \$1,220,000 | | | \$1,220,000 | \$341,000 | \$879,000 |
| Total Capital Works/ Major Maintenance | | \$425,000 | \$70,000 | \$0 | \$1,315,000 | \$0 | \$1,145,000 | \$2,955,000 | \$2,076,000 | \$879,000 |
| NEW CAPITAL WORKS | | | | | | | | | | |
| CO2 pH Adjustment System Detailed Design and Construction | | \$950,000 | | | | | | \$950,000 | \$0 | \$950,000 |
| Total New Capital Works | | \$950,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$950,000 | \$0 | \$950,000 |
| TOTAL MAJOR MAINTENANCE and CAPITAL | | \$1,375,000 | \$70,000 | \$0 | \$1,315,000 | \$0 | \$1,145,000 | \$3,905,000 | \$2,076,000 | \$1,829,000 |
| TOTAL MAINTENANCE, CAPITAL and STUDIES | | | | | | | | \$4,115,000 | \$2,286,000 | \$1,829,000 |

December 15, 2016 - UW/34/16

Re: Proposed 2017 UWSS Operations and Capital Budget

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

| UNION WATER SUPPLY SYSTEM Six Year Recommended Capital / Major Maintenance - December 7, 2017 | | | | | | | | <i>DRAFT</i> | |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------------------------|--|--|
| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total Capital Expenditures 2017-2022 | Comments | |
| Union Area Water Supply System | | | | | | | | | |
| Studies and Programs | | | | | | | | | |
| Water Demand/Usage Study | | | | | | | \$ - | Smart Water Study, etc. | |
| Water Quality Investigations | \$ 35,000 | \$ 35,000 | \$ 35,000 | \$ 35,000 | \$ 35,000 | \$ 35,000 | \$ 210,000 | CWN Algae Study, Corrosion Monitoring | |
| Energy Optimization Study | | | | | | | \$ - | M&T System installation in 2017 for Low Lift | |
| Residuals Management Studies | \$ - | \$ 40,000 | | | | | \$ 40,000 | | |
| Water Loss/Leak Detection Study | \$ 100,000 | | | | | | \$ 100,000 | | |
| Operations Contract Assessment | \$ 25,000 | | | | | | \$ 25,000 | Operations Contract Evaluation | |
| De-Chlorination System Evaluation | \$ 50,000 | | | | | | \$ 50,000 | | |
| 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 | \$ 150,000 | \$ 450,000 | | |
| Subtotal Studies and Programs | \$ 210,000 | \$ 175,000 | \$ 285,000 | \$ 185,000 | \$ 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 2020 | |
| Pump Wells(2) | | | | | | | \$ - | cleaned & inspected annually | |
| Low Lift Pump 1 *(Note 1) | \$ 35,000 | | | \$ 30,000 | \$ 30,000 | | \$ 95,000 | rebuilt in 2005 | |
| Low Lift Pump 2 | | | | | | | \$ - | rebuilt in 2017 | |
| Low Lift Pump 3 | | | | | | | \$ - | rebuilt in 2016 | |
| 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 | | | | \$ 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) | | | \$20,000 | | | | \$ 20,000 | General maintenance | |
| Low Lift Diesel Generator | | | | \$50,000 | | | \$ 50,000 | O & M Contracted to Genrep | |
| Low Lift Electrical Transformer Upgrade | | \$50,000 | | | | | \$ 50,000 | Electrical Transformer is old and undersized. Needs to be upgraded | |
| General Building Maintenance & Equipment | | | | | | | | | |
| 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 | | \$ 250,000 | | | | | \$ 250,000 | new maintenance/vehicle storage area | |
| Building/Grounds - | | | \$ 50,000 | \$ 50,000 | \$ 100,000 | | \$ 200,000 | General improvements | |
| Upgrades to Pole Barn - Roof, electric, etc. | | \$ 50,000 | | | | | \$ 50,000 | | |
| Elevator for Treatment Plant Building | | | | | | \$ 150,000 | \$ 150,000 | Accessibility Requirements | |
| Clarification System | | | | | | | | | |
| Clarifier 1 - | | | | | | | \$ - | To be retrofitted to DAF in 2019 | |
| Clarifier 2 - | | | | | | | \$ - | To be retrofitted to DAF in 2020 | |
| Clarifier 3 | | | | | \$ 150,000 | | \$ 150,000 | Major Maintenance and Painting | |

| | | | | | | | |
|--|--------------|------------|-----------|-----------|------------|------------|--------------|
| Clarifier 4 | | | | | | \$ 150,000 | \$ 150,000 |
| 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 | | | \$ 50,000 | | | | \$ 50,000 |
| Filtration | | | | | | | \$ - |
| Filter 1 | | | | | | | \$ - |
| Filter 2 | | | | | | | \$ - |
| Filter 3 | | | | | | | \$ - |
| Filter 4 | | | | | | | \$ - |
| Filter 5 | | | | | | | \$ - |
| Filter 6 | \$ 70,000 | | | | | | \$ 70,000 |
| Filter 7 | | | | | | | \$ - |
| Filter 8 | \$ 70,000 | | | | | | \$ 70,000 |
| Turbidity Meters for Filter Backwash | \$ 45,000 | | | | | | \$ 45,000 |
| Filter Meter Replacements | | | | | | | \$ - |
| 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 | | | | | | | \$ - |
| 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 Pump No. 10 | | | | | | \$ 400,000 | \$ 400,000 |
| High Lift Reservoirs (2) | | | | \$ 50,000 | | \$ 50,000 | \$ 100,000 |
| Wastewater Pumps (2) | | | \$ 10,000 | | \$ 10,000 | | \$ 20,000 |
| Diesel Generator 1 (170 kW) | | | | | | | \$ - |
| Diesel Generator 2 (750 kW) | | | | | | \$ 100,000 | \$ 100,000 |
| Diesel Generator Upgrades | | | | | | | \$ - |
| HL Compressor 1 | | | | | | | \$ - |
| HL Compressor 2 | | | \$ 15,000 | | | | \$ 15,000 |
| HL Compressor 3 | | | | \$ 15,000 | \$ 15,000 | | \$ 30,000 |
| Main Plant Electrical | | | | | | | \$ - |
| Electrical/Lighting Upgrades | \$ 30,000 | | \$ - | | | | \$ 30,000 |
| 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 | | | | | | | \$ - |
| Security System Install | \$ 45,000 | | | | | | \$ 45,000 |
| System upgrade and Maintenance | \$ 1,220,000 | \$ 30,000 | \$ 30,000 | \$ 30,000 | \$ 30,000 | \$ 30,000 | \$ 1,370,000 |
| UWSS Wide Communication System Improvements | \$ 50,000 | \$ 20,000 | \$ 20,000 | \$ 20,000 | \$ 50,000 | \$ 20,000 | \$ 180,000 |

| |
|---|
| Major Maintenance and Painting |
| Upgraded in 2013 |
| System upgraded 2015 |
| New in 2015 requires upgrade |
| Fully upgraded in 2012 |
| Upgrades in 2014 |
| Fully upgraded in 2013 |
| Upgrades in 2014 |
| New Media in 2017 installed in 1996 |
| New Media in 2017 installed in 1996 |
| New items to optimize backwash process |
| Completed in 2016-2017 |
| Completed in 2016-2017 |
| Microstrainer No. 2 to be removed |
| 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 |
| New pump needed in newer high lift bay; with VFD |
| Upgrades |
| RSP #2 replacement |
| Replacement |
| Replacement |
| Replacement |
| Upgrades needed in High Lift bays; external areas |
| Capacitors are failing. Upgrades needed |
| Completed |
| 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 |
| Keyless entry security system |
| New SCADA System in 2018; maintenance after improvements to existing communication system |

| | | | | | | | | | |
|---|-------------|-------------|-------------|-------------|-------------|-----------|--|----|-----------|
| Monitoring Equipment | | | | | | | | | |
| Turbidity Meter Replacement - | | | | | | | | \$ | - |
| Chlorine Analyzer Replacements | | | | | | | | \$ | - |
| Blue Green Algae Monitoring Probe | \$25,000 | | | | | | | \$ | 25,000 |
| Building Maintenance | | | | | | | | | |
| Facility Enhancements - General | | \$20,000 | \$20,000 | \$150,000 | \$150,000 | | | \$ | 340,000 |
| Maintenance Shop Roof Replacement | \$30,000 | | | | | | | | |
| Windows & Doors Replacement | | | | | | | | \$ | - |
| Laboratory Upgrade | \$50,000 | | | | | | | \$ | 50,000 |
| Kitchen Upgrade | \$25,000 | | | | | | | \$ | 25,000 |
| 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 | \$20,000 | | | | | | | \$ | 20,000 |
| Albuna Tower | | | | | \$250,000 | | | \$ | 250,000 |
| Kingsville Tower | | \$1,100,000 | | | | | | \$ | 1,100,000 |
| Essex Tower | \$1,025,000 | | | | | | | \$ | 1,025,000 |
| Distribution System Maintenance | \$100,000 | \$50,000 | \$50,000 | \$50,000 | \$50,000 | | | \$ | 300,000 |
| Master Water Meter Replacement/Upgrades | | | | | | | | \$ | - |
| Wastewater Treatment System | | | | | | | | | |
| Wastewater Lagoon Upgrades | | | | | | \$100,000 | | \$ | 100,000 |
| Residuals Management system (see new capital works) | | | | | | | | \$ | - |
| | | | | | | | | \$ | - |
| NEW CAPITAL WORKS | | | | | | | | \$ | - |
| | | | | | | | | \$ | - |
| CO2 pH Adjustment System Install | \$950,000 | | | | | | | \$ | - |
| UV Disinfection - In-reservoir UV vault | | | \$5,500,000 | | | | | \$ | 5,500,000 |
| Dry Scrubber - Chlorine Gas system | | \$1,000,000 | | | | | | \$ | 1,000,000 |
| Pre-Treatment/clarification upgrades (DAF) | | \$2,000,000 | | \$2,000,000 | | | | \$ | 4,000,000 |
| 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 |

| |
|---|
| Old equipment. All need to be updated |
| Old equipment. All need to be updated |
| Elevator Needed for Access |
| Roof Leaking and Needs to be Replaced |
| 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 |
| Purchased in 2016 |
| 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 Cathodic System |
| New Control Valve on 42inch for Albuna Control |
| Safety Upgrades and Painting (2017) |
| Painting (2016) |
| For water main breaks, etc. |
| Completed 2017 |
| Clay liner improvements |
| |
| |
| New UV Disinfection System. |
| Chlorine Building Expansion and Dry Scrubber Install |
| Conversion of Clarifiers No 1 and 2 to DAF |
| Polymer/thickening process for residuals |

| | | | | | | | | |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-----------|-------------------|
| <i>Subtotal Capital and Major Maintenance</i> | \$2,955,000 | \$1,865,000 | \$570,000 | \$700,000 | \$1,215,000 | \$1,000,000 | \$ | 8,305,000 |
| <i>Total New Capital Works</i> | \$950,000 | \$3,000,000 | \$5,500,000 | \$3,750,000 | \$6,000,000 | \$0 | \$ | 19,200,000 |
| TOTAL CAPITAL AND STUDIES | \$3,905,000 | \$4,865,000 | \$6,070,000 | \$4,450,000 | \$7,215,000 | \$1,000,000 | \$ | 27,505,000 |
| <i>Subtotal Studies and Programs</i> | \$210,000 | \$175,000 | \$285,000 | \$185,000 | \$185,000 | \$185,000 | \$ | 1,225,000 |
| <i>Contingency</i> | | | | | | | | |
| TOTAL CAPITAL, STUDIES AND NEW CAPITAL | \$ 4,115,000 | \$ 5,040,000 | \$ 6,355,000 | \$ 4,635,000 | \$ 7,400,000 | \$ 1,185,000 | \$ | 28,730,000 |

**Dates for the Union Water Supply System Joint Board of Management Meetings
for the 2018 Year**

January 17, 2018

February 21, 2018

March 21, 2018

April 18, 2018

May 16, 2018

June 20, 2018

July 18, 2018

August 15, 2018

September 19, 2018

October 17, 2018

November 21, 2018

December 19, 2018

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

UW/33/17

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

From: Rodney Bouchard, Union Water Manager

Date: December 15, 2017

Re: Payments for the UWSS from October 13, 2017



Aim:

To provide the Board with a copy of payments made by the Union Water Supply System from October 13 to December 15, 2017.

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\2017\uw33-17 payments october 13 to december 15, 2017.docx



Vendor : 001410 To PT00000141
 Batch : All
 Department : All

Cheque Print Date : 10-Oct-2017 To 19-Oct-2017
 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 | | | | | |
| 523211 | SCADA UPGRADES - RFP | | 560 13-Oct-2017 | 19-Oct-2017 | |
| 70-5-0700-7989 | 002070 Operational Programs & Studies | | | | 7,274.38 |
| 523214 | CO2 PH PRELIMINARY DESIGN | | 560 13-Oct-2017 | 19-Oct-2017 | |
| 70-5-0700-7989 | 002070 Operational Programs & Studies | | | | 6,979.49 |
| 020120 BELL MOBILITY CELLULAR | | | | | |
| 514877178-OC | MONTHLY CELL PHONE CHARGES | | 550 01-Oct-2017 | 19-Oct-2017 | |
| 70-5-0700-7110 | 002070 002083 Telecommunications Usage | | | | 58.76 |
| 514877178-SE | MONTHLY CELL PHONE CHARGES | | 550 01-Sep-2017 | 19-Oct-2017 | |
| 70-5-0700-7110 | 002070 002083 Telecommunications Usage | | | | 58.76 |
| 030515 CUETS FINANCIAL | | | | | |
| PHO SAIGON- | BUSINESS LUNCH - SEP28 | | 560 28-Sep-2017 | 19-Oct-2017 | |
| 70-5-0700-7052 | 002070 Meeting Expenses | | | | 30.51 |
| 70-5-0700-7052 | 002070 Meeting Expenses | | | | 5.49 |
| ZEHRS-SEP19 | FRUIT PLATTER, PLATES, NAPKINS, POP | | 560 19-Sep-2017 | 19-Oct-2017 | |
| 70-5-0700-7052 | 002070 Meeting Expenses | | | | 57.55 |
| ZEHRS-SEP20 | MUFFINS, COOKIES, JUICE, CREAM | | 560 20-Sep-2017 | 19-Oct-2017 | |
| 70-5-0700-7052 | 002070 Meeting Expenses | | | | 19.78 |
| 050003 E.L.K. ENERGY INC | | | | | |
| 40010915-AUG | 1312KWH - ESSEX WATER TOWER | | 553 01-Oct-2017 | 12-Oct-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -16.10 |
| 70-5-0700-7420 | 002073 Electricity | | | | 227.42 |
| 40047150-AUG | 382KWH - METER#9 | | 553 01-Oct-2017 | 12-Oct-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -5.63 |
| 70-5-0700-7420 | 002073 Electricity | | | | 79.50 |
| 51976611-AUG | KINGSVILLE WATER TOWER | | 553 01-Oct-2017 | 12-Oct-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -14.02 |
| 70-5-0700-7420 | 002073 Electricity | | | | 197.98 |
| 90006300-AUG | 20640KWH - COTTAM BOOSTER STN | | 553 01-Oct-2017 | 12-Oct-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | 4,697.07 |
| 050070 ELECTRICAL WHOLESALE SUPPLY | | | | | |
| 1209166 | 30X30X12 C/W BACK PLATE&HANDLE METER#27 | | 560 18-Sep-2017 | 19-Oct-2017 | |
| 70-7-0700-8750 | 002205 Watermains | | | | 1,322.21 |
| 070070 GILLETT SHEET METAL LTD | | | | | |
| 24332-I | MICROSTRAINER FLOOR | | 560 29-Sep-2017 | 19-Oct-2017 | |
| 70-7-0700-8745 | 700130 Treatment Plant | | | | 22,577.40 |
| 080250 HYDRO ONE NETWORKS INC | | | | | |
| 200141677460 | SEP/17 HYDRO - RUTHVEN WATER TREATMENT | | 560 06-Oct-2017 | 19-Oct-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | 85,924.63 |
| 200141680692 | SEP/17 HYDRO - LOW LIFT | | 560 06-Oct-2017 | 19-Oct-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | 47,008.19 |
| 70-5-0700-7420 | 002073 Electricity | | | | -5.31 |
| 200152134969 | SEP/17 HYDRO - METER#17 | | 560 06-Oct-2017 | 19-Oct-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -2.42 |
| 70-5-0700-7420 | 002073 Electricity | | | | 34.19 |
| 200208899066 | SEP/17 HYDRO - METER#16 | | 560 13-Oct-2017 | 19-Oct-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -6.48 |
| 70-5-0700-7420 | 002073 Electricity | | | | 91.47 |
| 130620 MONARCH OFFICE SUPPLY INC | | | | | |



Vendor : 001410 To PT00000141
Batch : All
Department : All

Cheque Print Date : 10-Oct-2017 To 19-Oct-2017
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 | | | | | |
| 043573 | PENS, PAPER, FLAGS, HIGHLIGHTERS | 560 | 06-Sep-2017 | 19-Oct-2017 | |
| 70-5-0700-7010 | 002070 Office Supplies | | | | 93.73 |
| 150365 ONTARIO CLEAN WATER AGENCY | | | | | |
| INV000097331 | SEP/17 OPER&MTCE | 560 | 30-Sep-2017 | 19-Oct-2017 | |
| 70-5-0700-6720 | 002071 OCWA Operating Contract | | | | 223,405.71 |
| INV000097616 | ESSEX WATER TOWER - REHAB. | 560 | 25-Sep-2017 | 19-Oct-2017 | |
| 70-7-0700-8705 | Essex Water Tower | | | | 21,244.00 |
| 180325 RICOH CANADA INC | | | | | |
| SCO91704643 | COPIER CONTRACT AUG22-SEP30 | 560 | 29-Sep-2017 | 19-Oct-2017 | |
| 70-5-0700-7010 | 002070 Office Supplies | | | | 101.21 |
| 190185 SGS CANADA INC. ENVIRONMENTAL SERVICES | | | | | |
| 11095857 | WATER QUALITY STUDIES-CORROSION-UWSS | 560 | 28-Sep-2017 | 19-Oct-2017 | |
| 70-5-0700-7989 | 002075 Operational Programs & Studies | | | | 1,984.28 |
| 11095881 | WATER QUALITY STUDIES-CORROSION-KINGSVILLE | 560 | 28-Sep-2017 | 19-Oct-2017 | |
| 70-5-0700-7989 | 002075 Operational Programs & Studies | | | | 98.31 |
| 11095886 | WATER QUALITY STUDIES-CORROSION-ESSEX | 560 | 28-Sep-2017 | 19-Oct-2017 | |
| 70-5-0700-7989 | 002075 Operational Programs & Studies | | | | 196.62 |
| 11095889 | WATER QUALITY STUDIES-CORROSION-LEAMINGTON | 560 | 28-Sep-2017 | 19-Oct-2017 | |
| 70-5-0700-7989 | 002075 Operational Programs & Studies | | | | 98.31 |
| 11095907 | WATER QUALITY STUDIES-CORROSION-LAKESHORE | 560 | 28-Sep-2017 | 19-Oct-2017 | |
| 70-5-0700-7989 | 002075 Operational Programs & Studies | | | | 98.31 |
| 190755 SUN LIFE ASSURANCE COMPANY OF CANADA | | | | | |
| OCT-17 | UNION WATER LOAN 3724:1 | 560 | 16-Oct-2017 | 19-Oct-2017 | |
| 70-5-0700-6000 | 002020 006901 Debenture Principal | | | | 61,844.44 |
| 70-5-0700-6100 | 002010 006901 Debenture Interest | | | | 121,731.61 |
| 210120 UNION GAS LTD | | | | | |
| SEP-OCT17 17 | SEP/17 GAS - COTTAM BOOSTER STN | 560 | 12-Oct-2017 | 19-Oct-2017 | |
| 70-5-0700-7410 | 002073 Gas | | | | 23.73 |
| Department Totals : | | | | | 607,515.08 |



Vendor : 001410 To PT00000145
 Batch : All
 Department : All

Cheque Print Date : 20-Oct-2017 To 02-Nov-2017
 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 | | | | | |
| 010094 ASL ROTEQ LTD | | | | | |
| 4336 | LOW LIFT PUMP #2 REPLACEMENT | 592 | 31-Aug-2017 | 02-Nov-2017 | |
| 70-7-0700-8735 | 700050 Low Lift Station | | | | 51,144.93 |
| 4336A | LOW LIFT PUMP#2 - SHIPPING | 592 | 28-Sep-2017 | 02-Nov-2017 | |
| 70-7-0700-8735 | 700050 Low Lift Station | | | | 1,356.00 |
| 030410 COLASANTI'S RESTAURANT | | | | | |
| E06971 | DONUTS | 592 | 19-Oct-2017 | 02-Nov-2017 | |
| 70-5-0700-7052 | 002070 Meeting Expenses | | | | 14.00 |
| 080250 HYDRO ONE NETWORKS INC | | | | | |
| 200141681706 | SEP/17 HYDRO - METER#2 | 592 | 26-Oct-2017 | 02-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -2.74 |
| 70-5-0700-7420 | 002073 Electricity | | | | 38.63 |
| 200141683524 | SEP/17 HYDRO - METER#8 | 592 | 26-Oct-2017 | 02-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -2.45 |
| 70-5-0700-7420 | 002073 Electricity | | | | 34.70 |
| 200141683726 | SEP/17 HYDRO - METER#15 | 592 | 24-Oct-2017 | 02-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -2.37 |
| 70-5-0700-7420 | 002073 Electricity | | | | 33.58 |
| 200141687362 | SEP/17 HYDRO - METER#22 | 592 | 26-Oct-2017 | 02-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -5.38 |
| 70-5-0700-7420 | 002073 Electricity | | | | 75.91 |
| 200141687766 | SEP/17 HYDRO - METER#29 | 592 | 26-Oct-2017 | 02-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -2.88 |
| 70-5-0700-7420 | 002073 Electricity | | | | 40.63 |
| 200141687867 | SEP/17 HYDRO - METER#24 | 592 | 26-Oct-2017 | 02-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -2.35 |
| 70-5-0700-7420 | 002073 Electricity | | | | 33.21 |
| 200141690190 | SEP/17 HYDRO - METER#26 | 592 | 25-Oct-2017 | 02-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | 103.36 |
| 70-5-0700-7420 | 002073 Electricity | | | | -7.32 |
| 200220161473 | SEP/17 HYDRO - METER#14 | 592 | 24-Oct-2017 | 02-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -4.35 |
| 70-5-0700-7420 | 002073 Electricity | | | | 61.44 |
| 150365 ONTARIO CLEAN WATER AGENCY | | | | | |
| INV000098067 | UWSS M&T & SCADA UPGRADE | 592 | 18-Oct-2017 | 02-Nov-2017 | |
| 70-5-0700-7989 | 002075 Operational Programs & Studies | | | | 2,260.00 |
| 210120 UNION GAS LTD | | | | | |
| AUG-OCT17 21 | 513.965M3 GAS - RUTHVEN WATER TREATMENT | 592 | 23-Oct-2017 | 02-Nov-2017 | |
| 70-5-0700-7410 | 002073 Gas | | | | 159.84 |
| SEP-OCT17 21 | 96.016M3 GAS - LOW LIFT | 592 | 25-Oct-2017 | 02-Nov-2017 | |
| 70-5-0700-7410 | 002073 Gas | | | | 31.12 |
| Department Totals : | | | | | 55,357.51 |

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



AP5130

Date : Nov 02, 2017

Page 38 of 41
 Page : 54
 Time : 2:15pm

Vendor : 001410 To PT00000145
 Batch : All
 Department : All

EFT Paid Date : 20-Oct-2017 To 02-Nov-2017
 Bank : 07 To 08
 Class : All

| Vendor Code | Vendor Name | Description | | | Batch | Inv Date | Inv Due Date | Amount |
|----------------------------|-----------------|-------------------------------------|-----|-------------|-------|-------------|--------------|--------------|
| Invoice No. | | CC1 | CC2 | CC3 | | | | |
| G.L. Account | GL Account Name | | | | | | | |
| DEPARTMENT 0700 | | Union Water System | | | | | | |
| 050195 | | ESSEX POWERLINES CORPORATION | | | | | | |
| 220651-SEP17 | 14KWH - METER#4 | | | | 592 | 20-Oct-2017 | 01-Nov-2017 | |
| 70-5-0700-7420 | 002073 | | | Electricity | | | | -3.05 |
| 70-5-0700-7420 | 002073 | | | Electricity | | | | 43.16 |
| Department Totals : | | | | | | | | 40.11 |



Vendor : 001410 To PT00000115
 Batch : All
 Department : All

Cheque Print Date : 06-Nov-2017 To 17-Nov-2017
 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 | | | | |
| 010094 ASL ROTEQ LTD | | | | | |
| 4336B DISMANTLE LOW LIFT PUMP #2 | | 615 | 23-Oct-2017 | 16-Nov-2017 | |
| 70-7-0700-8735 700050 Low Lift Station | | | | | 1,582.00 |
| 020120 BELL MOBILITY CELLULAR | | | | | |
| 514877178-NO MONTHLY CELL PHONE CHARGES | | 607 | 01-Nov-2017 | 16-Nov-2017 | |
| 70-5-0700-7110 002070 002083 Telecommunications Usage | | | | | 40.68 |
| 200348 CORPORATION OF THE TOWN OF KINGSVILLE | | | | | |
| 300-01000 NO TAXES - 1391 UNION - LOW LIFT | | 615 | 14-Nov-2017 | 16-Nov-2017 | |
| 70-5-0700-6750 002072 Property Tax | | | | | 5,782.00 |
| 300-20100 NO TAXES - 1615 UNION - RUTHVEN WATER TREATMENT | | 615 | 14-Nov-2017 | 16-Nov-2017 | |
| 70-5-0700-6750 002072 Property Tax | | | | | 55,374.00 |
| 590-02800 NO TAXES - 163 CTY RD 34E - COTTAM BOOSTER STN | | 615 | 14-Nov-2017 | 16-Nov-2017 | |
| 70-5-0700-6750 002072 Property Tax | | | | | 8,901.00 |
| 030515 CUETS FINANCIAL | | | | | |
| AIR CAN-PDV AIRFARE - NOVA SCOTIA & NEWFOUNDLAND | | 615 | 11-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-7050 002070 Conferences | | | | | 726.98 |
| CWWA-NOV17 CWWA 2017 CONF. REGIST. | | 615 | 11-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-7050 002070 Conferences | | | | | 875.00 |
| FOUR POINTS ROOM - WESTERN ONT. WATER WORKS CONF. | | 615 | 04-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-7050 002070 Conferences | | | | | 231.82 |
| STAPLES-OCT OFFICE SUPPLIES | | 615 | 16-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-7010 002070 Office Supplies | | | | | 90.58 |
| TIM HORTONS COFFEE, TIMBITS - MEETING OCT16 | | 615 | 16-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-7052 002070 Meeting Expenses | | | | | 18.54 |
| 050003 E.L.K. ENERGY INC | | | | | |
| 40010915-SEP 1318KWH - ESSEX WATER TOWER | | 616 | 01-Nov-2017 | 14-Nov-2017 | |
| 70-5-0700-7420 002073 Electricity | | | | | -17.11 |
| 70-5-0700-7420 002073 Electricity | | | | | 241.68 |
| 40047150-SEP 369KWH - METER#9 | | 616 | 01-Nov-2017 | 14-Nov-2017 | |
| 70-5-0700-7420 002073 Electricity | | | | | -5.75 |
| 70-5-0700-7420 002073 Electricity | | | | | 81.23 |
| 51976611-SEP SEP/17 - KINGSVILLE WATER TOWER | | 616 | 01-Nov-2017 | 14-Nov-2017 | |
| 70-5-0700-7420 002073 Electricity | | | | | -14.00 |
| 70-5-0700-7420 002073 Electricity | | | | | 197.68 |
| 90006300-SEP 16080KWH - COTTAM BOOSTER STN | | 616 | 01-Nov-2017 | 14-Nov-2017 | |
| 70-5-0700-7420 002073 Electricity | | | | | 3,868.84 |
| 060150 FRANKLIN EMPIRE | | | | | |
| 14516389 METER #27 | | 615 | 29-Sep-2017 | 16-Nov-2017 | |
| 70-7-0700-8750 002205 Watermains | | | | | 6,019.54 |
| 70-7-0700-8750 002205 Watermains | | | | | 120.39 |
| 080250 HYDRO ONE NETWORKS INC | | | | | |
| 200141680894 SEP/17 HYDRO - LEAM. WATER TOWER | | 616 | 30-Oct-2017 | 14-Nov-2017 | |
| 70-5-0700-7420 002073 Electricity | | | | | -31.38 |
| 70-5-0700-7420 002073 Electricity | | | | | 443.25 |
| 200141682009 SEP/17 HYDRO - ALBUNA WATER TOWER | | 616 | 30-Oct-2017 | 14-Nov-2017 | |
| 70-5-0700-7420 002073 Electricity | | | | | -28.15 |
| 70-5-0700-7420 002073 Electricity | | | | | 397.61 |
| 200141683019 SEP/17 HYDRO - METER#3 | | 616 | 30-Oct-2017 | 14-Nov-2017 | |
| 70-5-0700-7420 002073 Electricity | | | | | -2.74 |



Vendor : 001410 To PT00000115
 Batch : All
 Department : All

Cheque Print Date : 06-Nov-2017 To 17-Nov-2017
 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 | | | | |
| 70-5-0700-7420 | 002073 Electricity | | | | 38.76 |
| 200141683120 | SEP/17 HYDRO - METER#5 | 616 | 30-Oct-2017 | 14-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -2.51 |
| 70-5-0700-7420 | 002073 Electricity | | | | 35.44 |
| 200141683423 | SEP/17 HYDRO - METER#6 | 616 | 30-Oct-2017 | 14-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -2.41 |
| 70-5-0700-7420 | 002073 Electricity | | | | 34.01 |
| 995929 LAKESIDE PROCESS CONTROLS LTD. | | | | | |
| CD970035711 | 6" MAGNETIC FLOWMETER - METER#6 | 615 | 20-Oct-2017 | 16-Nov-2017 | |
| 70-7-0700-8750 | 002205 Watermains | | | | 6,074.53 |
| 150365 ONTARIO CLEAN WATER AGENCY | | | | | |
| INV000098179 | OCT/17 OPER&MTCE | 615 | 31-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-6720 | 002071 OCWA Operating Contract | | | | 223,405.71 |
| INV000098424 | UWSS M&T & SCADA UPGRADES | 615 | 27-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-7989 | 002070 Operational Programs & Studies | | | | 28,250.00 |
| 160530 PRICEWATERHOUSE COOPERS LLP | | | | | |
| TR137189950 | RESTRUCTURING CONSULTANT | 615 | 31-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-7950 | 002070 Professional Services | | | | 30,262.11 |
| 180190 RICCI ENNS | | | | | |
| 58657 | LEGAL FEES - RESTRUCTURING | 615 | 27-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-7950 | 002070 Professional Services | | | | 2,666.80 |
| 180325 RICOH CANADA INC | | | | | |
| SCO91741529 | COPIER CONTRACT - SEP28-OCT30 | 615 | 31-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-7010 | 002070 Office Supplies | | | | 85.52 |
| 190185 SGS CANADA INC. ENVIRONMENTAL SERVICES | | | | | |
| 11103633 | WATER QUALITY STUDIES CORROSION-LEAMINGTON | 615 | 30-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-7989 | 002075 Operational Programs & Studies | | | | 98.31 |
| 11103709 | WATER QUALITY STUDIES CORROSION-KINGSVILLE | 615 | 30-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-7989 | 002075 Operational Programs & Studies | | | | 98.31 |
| 11103738 | WATER QUALITY STUDIES CORROSION-LAKESHORE | 615 | 30-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-7989 | 002075 Operational Programs & Studies | | | | 98.31 |
| 11104156 | WATER QUALITY STUDIES CORROSION-ESSEX | 615 | 30-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-7989 | 002075 Operational Programs & Studies | | | | 98.31 |
| 11104159 | WATER QUALITY STUDIES CORROSION-UWSS | 615 | 30-Oct-2017 | 16-Nov-2017 | |
| 70-5-0700-7989 | 002075 Operational Programs & Studies | | | | 1,751.50 |
| 190755 SUN LIFE ASSURANCE COMPANY OF CANADA | | | | | |
| NOV-17 | NOV/17 UNION WATER LOAN 3724:1 | 615 | 01-Nov-2017 | 16-Nov-2017 | |
| 70-5-0700-6100 | 002010 006901 Debenture Interest | | | | 121,188.10 |
| 70-5-0700-6000 | 002020 006901 Debenture Principal | | | | 16,493.94 |
| Department Totals : | | | | | 515,568.43 |



Vendor : 001410 To PT00000149
Batch : All
Department : All

Cheque Print Date : 20-Nov-2017 To 01-Dec-2017
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 | | | | | |
| 080250 HYDRO ONE NETWORKS INC | | | | | |
| 200141677460 | OCT/17 HYDRO - RUTHVEN WTP | 637 | 08-Nov-2017 | 22-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | 76,276.45 |
| 200141680692 | OCT/17 HYDRO - LOW LIFT | 637 | 08-Nov-2017 | 22-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | 40,508.38 |
| 70-5-0700-7420 | 002073 Electricity | | | | -5.33 |
| 200152134969 | OCT/17 HYDRO - METER#17 | 637 | 08-Nov-2017 | 22-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -2.42 |
| 70-5-0700-7420 | 002073 Electricity | | | | 34.12 |
| 200208899066 | OCT/17 HYDRO - METER#16 | 637 | 14-Nov-2017 | 22-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -6.92 |
| 70-5-0700-7420 | 002073 Electricity | | | | 97.81 |
| 200220161473 | OCT/17 HYDRO - METER#14 | 636 | 22-Nov-2017 | 30-Nov-2017 | |
| 70-5-0700-7420 | 002073 Electricity | | | | -2.50 |
| 70-5-0700-7420 | 002073 Electricity | | | | 35.32 |
| 995929 LAKESIDE PROCESS CONTROLS LTD. | | | | | |
| CD970033477 | ROSEMOUNT MAGMETER - METER#14 | 636 | 08-Sep-2017 | 30-Nov-2017 | |
| 70-7-0700-8750 | 002205 Watermains | | | | 5,628.19 |
| 210120 UNION GAS LTD | | | | | |
| OCT-NOV17 1 | 165.867M3 GAS - COTTAM BOOSTER STN | 637 | 10-Nov-2017 | 22-Nov-2017 | |
| 70-5-0700-7410 | 002073 Gas | | | | 75.33 |
| OCT-NOV17 2 | 9321.941M3 GAS - RUTHVEN WATER TREATMENT | 636 | 21-Nov-2017 | 30-Nov-2017 | |
| 70-5-0700-7410 | 002073 Gas | | | | 2,891.59 |
| OCT-NOV17 2 | 488.549M3 GAS - LOW LIFT | 636 | 23-Nov-2017 | 30-Nov-2017 | |
| 70-5-0700-7410 | 002073 Gas | | | | 169.93 |
| 230440 WILLIS BUSINESS LAW | | | | | |
| 6819 | LEGAL FEES - RESTRUCTURING | 636 | 31-Oct-2017 | 30-Nov-2017 | |
| 70-5-0700-7950 | 002070 Professional Services | | | | 10,143.17 |
| 230690 WJF INSTRUMENTATION (1990) LTD | | | | | |
| 21433 | TURBIWELL LED TURBIDITY MONITOR W/DRAIN VALVE | 636 | 14-Nov-2017 | 30-Nov-2017 | |
| 70-7-0700-8795 | Water Quality/Level Instrumentation | | | | 7,316.75 |
| Department Totals : | | | | | 143,159.87 |