

**THE UNION WATER SUPPLY SYSTEM**

**JOINT BOARD OF MANAGEMENT**

**AGENDA**

**WEDNESDAY, FEBRUARY 15, 2017**

**COMMENCING AT 9:00 AM**

**IN THE COMMUNITY ROOM - KINGSVILLE ARENA**

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**(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, January 18, 2017

Pages 3 - 8

**(D) Business Arising Out of the Minutes:**

**(E) Items for Consideration:**

1. UW/06/17 dated February 10, 2017 re: Status Update of UWSS Operations & Maintenance Activities and Capital Works to February 10, 2017  
Pages 9 - 10
2. UW/07/17 dated February 6, 2017 re: 2016 Annual Report under the Safe Drinking Water Act and Ontario Regulation 170/03  
Pages 11 - 20
3. UW/08/17 dated February 6, 2017 re: 2016 Summary Report for Municipalities under Regulation 170/03 made under the Safe Drinking Water Act.  
Pages 21 - 29
4. UW/09/17 dated February 10, 2017 re: Payments from December 16, 2016 to January 13, 2017  
Pages 30 - 34

**(F) New Business:**

(G) Adjournment:

(H) Date of Next Meeting: To be determined

/kmj

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

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

Members Absent: Councillor Neufeld - Kingsville

Staff Present: Rodney Bouchard, Manager, UWSS  
Christine Johnson, recording secretary, UWSS

Municipal Staff  
Present: Andrew Plancke, Kevin Girard - Kingsville  
Shannon Belleau - Leamington

OCWA Staff  
Present: Dale Dillen, Dave Jubenville, Susan Budden

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

The Manager calls the meeting to order.

The Manager calls for nominations for the position of Chair.

**No. UW-01-17**

Moved by: Mayor Paterson

Seconded by: Mayor McDermott

That Deputy Mayor, Hilda MacDonald, is nominated to the position of Chair for the  
UWSS Joint Board of Management, for a term ending on December 31, 2017.

Carried

Deputy Mayor MacDonald accepts the nominations

**No. UW-02-17**

Moved by: Deputy Mayor Queen

Seconded by: Mayor Paterson

That the nominations for the position of Chair of the UWSS Joint Board of Management are closed.

Carried

Deputy Mayor MacDonald is acclaimed as Chair of the UWSS Joint Board of Management for a term of one year ending on December 31, 2017.

The Chair then assumes control of the meeting.

She then calls for nominations for the position of Vice-Chair

**No. UW-03-17**

Moved by: Mayor Paterson

Seconded by: Councillor Hammond

That Mayor, Nelson Santos, is nominated to the position of Vice-Chair for the UWSS Joint Board of Management, for a term ending on December 31, 2017.

Mayor Santos accepts the nomination.

**No. UW-04-17**

Moved by: Deputy Mayor Queen

Seconded by: Councillor Gaffan

That the nominations for the position of Vice-Chair of the UWSS Joint Board of Management are closed.

Mayor Santos is acclaimed as Vice-Chair of the UWSS Joint Board of Management for a term of one year ending on December 31, 2017.

**Disclosures of Pecuniary Interest: none**

**Adoption of Council Minutes:****No. UW-05-17**

Moved by: Councillor Verbeke

Seconded by: Mayor Paterson

That Minutes of the UWSS Joint Board of Management meeting of December 21, 2016 be received.

Carried

**Business Arising Out of the Minutes:**

There was none

**Report UW/02/17 Status Update of the UWSS Operations & Maintenance Activities and Capital Works to January 13, 2017, dated January 13, 2017**

The Manager indicates that there ongoing maintenance continues at all of the UWSS facilities. He informs members that the new portable generator has already been put to use over the holidays. A switch gear failure occurred at the Low Lift. Phasor was used to deliver the generator to the Low Lift while repairs were made.

The Manager informs members of another watermain break on the 12" line to Cottam. The repairs were made by Town of Kingsville staff on January 2<sup>nd</sup>.

He notes that Reservoir #2 expansion joint repairs have been completed and he is expecting a full report from Watech Services prior to next month's meeting. He also explains that all of the pipes at the Albuna Water Tower have been wrapped. It was noted that the Hydro One invoices for AWT were high and this will hopefully help reduce energy consumption.

The replacement of the inlet/outlet valves for Filters #2/#4 and flow meters are currently underway. The work will take several weeks.

The Manager informs members that the MOE Inspection Report has been received for the Town of Lakeshore with a rating of 100%. He further notes that the Town of Kingsville's MOE Inspection Report should be received prior to the February meeting.

The Manager then explains that the flows for 2017 are up slightly but with only 12 days to report on it does not provide a clear picture. He explains that he is unsure of the reason for the increased flows over the last month to month and half. He speculates that some of the newly built greenhouses have come on-line or perhaps greenhouses have planted earlier.

The board asks the Manager if there is a way to track flows and he explains that UWSS has billing meters and there is potential to see a general area of increase. He is finding that Gosfield North's flows seem to be higher.

The Board is happy to see that UWSS was able to utilize the new generator and is hoping the Manager can share his information with the Manager of Recreation Services for the Town of Kingsville. The Manager indicates that he would be happy to provide said information. Further the board is concerned with the continuing breaks on the 12 inch watermain to Cottam. Councillor Patterson indicates that he will support the Manager in moving this replacement project further up the timeline, as each break is costing approximately \$25,000.

Shannon Belleau notes that Highbury Canco has increased discharge flows through the Leamington Pollution Control and she notes they have increased several of the lines and this could account for the increased flows.

#### **No. UW-06-17**

Moved by: Deputy Mayor Queen

Seconded by: Councillor Diemer

That report UW/02/17 dated January 13, 107 re: Status Update of the UWSS Operations & Maintenance Activities and Capital Works to January 13, 2017 is received.

Carried (UW/02/17)

#### **Report UW/03/16 dated January 12, 2017 re: Revision to Schedule C (Proportional Water Consumption and System Interest) of the UWSS Transfer Order**

The Manager reminds members of the Board that as part of the Transfer Order every four (4) years the Manager must review proportion owned by each municipality based on the previous four (4) year flows average. He notes the previous review took place in 2013 and reminds members of those numbers.

He then presents the numbers for 2017, based on flows from 2013-2016. He points out that Leamington's numbers have decreased by almost 6% and Kingsville's have increased by almost 6%. The change in flows can be attributed to several factors: the closing of Heinz; and a large greenhouse surge in Kingsville during the time period in question.

He states that these numbers will be used for the purposes of preparing Financial Statements until December 31, 2020, at which time system interest will be re-evaluated.

**No. UW-07-17**

Moved by: Mayor Paterson

Seconded by: Councillor Dunn

That the report UW/03/17 dated January 12, 2017 re: Revision to Schedule C (Proportional Water Consumption and System Interest) of the UWSS Transfer Order is received;

And

1. That UWSS system interests in Schedule C of the Transfer Order are updated as follows:

<b>Municipality</b>	<b>Average Water Consumption (MIG/Year)</b>	<b>Proportional System Interest</b>
The Corporation of the Municipality of Leamington	1,623	50.32%
The Corporation of the Town of Kingsville	1,309	40.57%
The Corporation of the Town of Essex	192	5.95%
The Corporation of the Town of Lakeshore	102	3.16%

2. That the municipalities of Leamington, Kingsville, Essex and Lakeshore be informed of this update to Schedule C of the UWSS Transfer Order. This update will apply from January 1, 2017 to December 31, 2020

Carried (UW/03/17)

**Report UW/04/17 dated January 12, 2017 re: Chief Drinking Water Inspector Report for Ontario 2015-2016 and the Minister's Annual Report on Drinking Water 2016**

The Manager indicates that this report is produced yearly by the Chief Drinking Water Inspector and sets out the progress of water testing in Ontario. He reviews each of the four member municipality results. He confirms that UWSS is meeting all of the standards and that there are no regulatory issues.

The Board asks the Manager why there are no longer boil water advisories as there were about 10 years ago. The Manager explains that after the Walkerton water crisis any test result that came back as not meeting the standard meant that a boil water advisory was called. Now the Windsor Essex County Health Unit (WECHU) is notified but generally instructs that the sample be retaken upstream and downstream and resubmitted. This is a secondary check usually the results of these samples come back within the standard.

**No. UW-08-17**

Moved by: Councillor Gaffan

Seconded by: Mayor Santos

That the CDWI's Report for 2015-2016 and the Minister's Annual Report for 2016 is received.

Carried (UW/04/17)

**Report UW/05/17 dated January 13, 2017, re: Payments from December 16, 2016 to January 13, 2017**

**No. UW-09-17**

Moved by: Mayor Paterson

Seconded by: Mayor McDermott

That report UW/05/17 dated January 13, 2017 re: Payments from December 16, 2016 to January 13, 2017 is received.

Carried (UW/05/17)

**New Business**

The Manager indicates to the board that he will be setting up a date for a workshop regarding the future proposed works as identified in the UWSS Water Quality Masterplan report that was prepared by Associated Engineering. He intends to have the engineering firm present and states that this will likely take several hours. He notes that he will not be tying the workshop in with a regular board meeting as he predicts it could be several hours long. He will be circulating dates in the near future.

**Adjournment:****No. UW-10-17**

Moved by: Deputy Mayor Queen

Seconded by: Councillor Patterson

That the meeting adjourn at 9:19 am

Carried

DATE OF NEXT MEETING: Wednesday, February 15, 2017 at 9:00 am in the Kingsville Community Room, Kingsville Arena



UW/06/17

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

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

**Date:** February 10, 2017

**Re:** Status Update of UWSS Operations & Maintenance Activities and Capital Works to February 10, 2017



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**Aim:**

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

**Discussion:**

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

1. Regular Maintenance on all process equipment and analyzers continue to be completed through OCWA's Workplace Maintenance Management System.
2. On February 9, 2017, a water main break was discovered on the 24" water main heading to Kingsville on the 2<sup>nd</sup> Concession at the old meter pit. Due to its poor structural condition, the meter pit will be rehabilitated and the water main couplings, spools and valves will be replaced/repared accordingly. This work will be completed in collaboration with the Town of Kingsville.
3. Filters #2 and #4 valve and flow meter replacement has been completed and filters have been disinfected and returned to service.
4. The filter media replacement project for Filters #5 and #7 has been initiated. This work will be completed by Continental Carbon Group of Stoney Creek, Ontario. An approved budget of \$140,000 has been allocated for the completion of this work. It is anticipated that the on-site work will be initiated at the end of February 2017 and completed by the end of March 2017.
5. The replacement for compressor #1 has arrived on site. Installation of the compressor will be completed by the end of February 2017.
6. Compliance: The Town of Kingsville distribution system inspection report was received on January 19<sup>th</sup>, 2017. The inspection report indicated a Compliance Rating of 97.39%.

Re: Status Update of UWSS Operations & Maintenance Activities and Capital Works  
to February 10, 2017

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7. The MOE inspection of the UWSS facilities was started on January 26, 2017. A different MOE inspector than previous has been assigned for this year's inspection. The inspection results will be reported to the Board upon receipt of the final inspection report. An MOE inspection has started for the Union WTP. The annual report for Union has been completed.

Comparative Flows for 2013 through 2017 in Millions of Imperial Gallons (for the period 1 January to February 9, 2016)

	2013	2014	2015	2016	2017
Flow to Date (MG)	239.79	250.54	230.75	221.81	232.83
Max Day (MGD)	6.96	7.50	7.15	6.29	6.68
Min Day (MGD)	4.65	4.19	3.79	4.29	4.56
Average Day (MGD)	5.99	6.26	5.77	5.55	5.82
No of Days	40	40	40	40	40

Flows to date are up 11.02 MIG or 4.95% from last year. The 2017 flows to date are 1.23% below 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\2017\uw06-17 operations report for february 2017.docx

UW/07/17

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

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

**Date:** February 6, 2017

**Re:** 2016 Annual Report under the Safe Drinking Water Act and Ontario Regulation 170/03



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**Aim:**

To present to the Board the Annual Report for 2016 as required under Regulation 170/03 made under the Safe Drinking Water Act 2002.

**Background**

Section 11 of Regulation 170/03 made under the Safe Drinking Water Act 2002 requires that an Annual Report be prepared for a water system and submitted to any water systems that are supplied from that water system. This is required to be done before February 28 of the following year.

**Discussion**

The attached Annual Report has been prepared in accordance with O. Reg. 170/03. A copy has been provided to each of the four participating municipalities therefore satisfying the requirement that it must be received before February 28, 2016.

There were no instances in 2016 when the Union Water Supply System was out of compliance with the requirements of the Safe Drinking Water Act 2002, associated regulations, system approvals and provincial officer orders.

**Recommendation:**

That the Board receive the Annual Report for 2016 prepared under Section 11 of Regulation 170/03 made under the Safe Drinking Water Act 2002.

Respectfully submitted,



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

Rb/kmj

Filename: t:\union wtr\reports to board\2017\uw07-17 annual report for 2016 (board report).docx

February 10, 2017 - UW/07/17

Re: 2016 Annual Report under the SDWA and Ontario Reg. 170/03

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**Recommendation:**

That the Board receive the Annual Report for 2016 prepared under Section 11 of Regulation 170/03 made under the Safe Drinking Water Act 2002.

Respectfully submitted,



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



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**



**Annual Performance Report**

**Union Area Water Supply System**

**Drinking Water System # 210000853**

**2016**

Prepared for the Corporation of the Town of Kingsville, the Corporation of the Town of Essex,  
the Town of Lakeshore & the Municipality of Leamington

By the Ontario Clean Water Agency  
Ken Penney  
Process & Compliance Technician  
kpenney@ocwa.com  
519-326-4447



**ANNUAL REPORT**

<b>Drinking-Water System Number:</b>	<b>210000853</b>
<b>Drinking-Water System Name:</b>	Union Area Water Supply System
<b>Drinking-Water System Owner:</b>	Union Area Water Supply System Joint Board of Management (Municipality of Leamington, Town of Kingsville, Town of Essex, Town of Lakeshore)
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	01-January-2016 to 31-December-2016

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ]</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> <p><i>Union Water Treatment Plant P.O. Box 340, 1615 Union Ave., Ruthven, Ont. N0P 2G0</i></p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p>Number of Designated Facilities served: <input type="text" value="N/A"/></p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ <input type="checkbox"/> ] No [ <input type="checkbox"/> ]</p> <p>Number of Interested Authorities you report to: <input type="text" value="N/A"/></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ <input type="checkbox"/> ] No [ <input type="checkbox"/> ]</p>
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**Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report**

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
Municipality of Leamington	220004992
Town of Kingsville	220003403
Town of Essex	220003680
Town of Lakeshore	260004995



Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?

Yes [ X ] No [ ]

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

- Public access/notice via the web
- Public access/notice via Government Office
- Public access/notice via a newspaper
- Public access/notice via Public Request
- Public access/notice via a Public Library
- Public access/notice via other method: Municipal Offices

**Describe your Drinking-Water System**

The Union Water Treatment Plant (UWTP) is a chemically assisted conventional filtration plant, which draws water from Lake Erie.

The UWTP supplies potable water to the Town of Kingsville, Municipality of Leamington, a portion of the Town of Essex and a portion of the Town of Lakeshore with an estimated service population of 60,000.

The treatment process includes chemically assisted up-flow clarification, filtration with dual media filters, primary disinfection using chlorine gas and secondary disinfection using chloramination.

Seasonally, the UWTP uses sodium hypochlorite at its intakes to control Zebra Mussel formation.

There are also four water towers and a booster/storage station located on the Union Water Supply System.

**List all water treatment chemicals used over this reporting period**

Zebra Mussel Control:

- Sodium Hypochlorite – (Seasonal)

Clarification Chemicals:

- Aluminum Sulfate – Coagulant (used for building a blanket during clarifier start up)
- DelPAC – Coagulant
- Hyper+Ion 1090 – Coagulant
- Magnafloc LT22 (polymer)-Coagulant Aid
- Magnafloc LT22S (polymer)-Coagulant Aid
- Powdered Activated Carbon – Taste and Odor Control

Filtration:

- Cat-Floc 8103 Plus (polymer) – Filter Aid (Seasonal)

Disinfection:

- Primary: Chlorine Gas
- Secondary: Aqua Ammonia & Chlorine (to form chloramines)



**Were any significant expenses incurred to?**

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

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

Item	Cost
Low Lift Pump #3 Major Maintenance	\$19,640
New Zebra Mussel Control System – Intake #1	\$100,218
Carbon Feed Pump Replacements (2)	\$17,354
Clarifier #2 Inlet Valve Replacement	\$8,833
Filter Meter Replacements – Filters #2, 3 and 4	\$19,347
Filter Inlet/Outlet Valve Replacements – Filters #2 and 4	\$27,914
Filter Inlet Valve Cylinders Rehab – Filters #5-8	\$5,237
Coagulant Feed System Monitoring Equipment	\$2,558
Boiler System Upgrades	\$9,650
Turbidity Meter Replacements	\$18,477
Chlorine Analyzer Replacements	\$17,397
Main Wash #1 Pump VFD	\$6,993
High Lift #1 Diesel Pump – Vent System Upgrades/Clutch Drive Upgrades	\$5,910
High Lift Pump #3 Rehabilitation	\$28,174
High Lift Reservoir #2 Repairs	\$50,955
Treatment Pond Residuals Materials Management	\$103,341
LED Lighting Upgrades – Treatment Plant	\$5,193
Window Replacements	\$27,395
Maintenance Shop – New cement pad staging area	\$22,084
Pole Barn Roof Replacement	\$15,800
Cottam Booster Pump #3 - Rehabilitation	\$5,609
SCADA System – New Server and PLC upgrades	\$21,491
Security System Upgrades	\$727
Communication System Improvements	\$10,451
Transmission System Valves and Components	\$40,646
Albuna Water Tower – Electric Heater Replacements	\$1,686
High Lift Transfer Switch Spare Breaker Reconditioning	\$6,869
Ammonia System – Water Softener Rehabilitation	\$5,626
Master Water Meter Replacements/Upgrades	\$55,478
Portable 250hp Backup Generator for High Lift, Low Lift, Towers, etc	\$132,161
Treatment Plant Roof Repairs	\$1,221
Cottam Booster Roof Repairs	\$1,883
Chlorine Building Roof Liner Replacement	\$12,181
Treatment Plant – Operator’s Area Ceiling Tile Replacement	\$3,100

**Expenses incurred continued**





Laboratory Equipment	\$5,250
New Above Ground Waste Oil Tank	\$2,009
Essex Water Tower Ladder Safety Upgrade	\$3,688
<b>Total Capital Works/Major Maintenance</b>	<b>\$822,545</b>

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

Incident Date	Incident description	Corrective Action	AWQI #	Corrective Action Date
April 15, 2016	Loss of coagulant	Re-initialized coagulant	129180	April 15,2016

Note: Corrective action Date is Date of resolution.

Microbiological testing is done under Schedule 10 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of Ecoli Or Fecal Results (min #)-(max #) (ct/100 mL)	Range of Total Coliform Results (min #)-(max #) (ct/100 mL)	Number of HPC Samples	Range of HPC Results (min #)-(max #) (ct/mL)
Raw	52	<2 - 86	2 - 400	0	N/A
Treated	52	0 - 0	0 - 0	52	<10 - 10
Distribution	Please See Individual Annual Reports for Distribution System Information: Leamington (220004992), Kingsville (220003403), Essex (220003680), and Lakeshore (260004995).				



Operational testing is done under Schedule 7 of Regulation 170/03 during the period Covered by this annual report.

	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity	8760	0 – 1.80 NTU
Chlorine - Free	8760	0 – 2.45 mg/L
Fluoride (If the DWS provides fluoridation)	N/A	N/A

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

*NOTE: Record the unit of measure if it is not milligrams per litre.*

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

Date of legal instrument issued	Parameter: (Suspended Solids)	Date Sampled	Result	Unit of Measure
02-Nov-2009 Municipal Drinking Water Licence Number: 041-101	South Settling Pond	Jan 18/16	<3.0	mg/L
	South Settling Pond	Feb 09/16	4.0	mg/L
	South Settling Pond	Mar 07/16	4.0	mg/L
	South Settling Pond	Apr 04/16	14.0	mg/L
	South Settling Pond	May 09/16	3.0	mg/L
	North Settling Pond	June 14/16	<3.0	mg/L
	South Settling Pond	June 14/16	<3.0	mg/L
	North Settling Pond	July 04/16	<3.0	mg/L
	South Settling Pond	July 04/16	<3.0	mg/L
	North Settling Pond	Aug 09/16	<3.0	mg/L
	South Settling Pond	Aug 09/16	3.0	mg/L
	North Settling Pond	Sept 12/16	<3.0	mg/L
	South Settling Pond	Sept 12/16	<3.0	mg/L
	North Settling Pond	Oct 03/16	<3.0	mg/L
	South Settling Pond	Oct 03/16	6.0	mg/L
	North Settling Pond	Nov 07/16	3.0	mg/L
	South Settling Pond	Nov 07/16	5.0	mg/L
	North Settling Pond	Dec 02/16	3.0	mg/L
South Settling Pond	Dec 02/16	4.0	mg/L	
Limit 25.0 mg/L		Annual Average:	4.0	mg/L

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	January 12, 2016	0.02	ug/L	No
Arsenic	January 12, 2016	0.2	ug/L	No
Barium	January 12, 2016	12.3	ug/L	No
Boron	January 12, 2016	17.9	ug/L	No
Cadmium	January 12, 2016	0.005	ug/L	No



Chromium	January 12, 2016	0.28	ug/L	No
*Lead	n/a			
Mercury	January 12, 2016	0.01	ug/L	No
Sodium	January 12, 2016	6.38	mg/L	No
Selenium	January 12, 2016	0.13	ug/L	No
Uranium	January 12, 2016	0.055	ug/L	No
Fluoride	January 12, 2016	0.09	mg/L	No
Nitrite (N)	December 28, 2016	< 0.1	mg/L	No
Nitrate (N)	December 28, 2016	0.4	mg/L	No
Nitrite + Nitrate (N)	December 28, 2016	0.4	mg/L	No
Ammonia + Ammonium (N)	December 28, 2016	0.33	mg/L	No

\*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

**Summary of lead testing under Schedule 15.1 during this reporting period**

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

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Number of Exceedances
Plumbing	Please See Individual Annual Reports for Distribution System Information: Leamington (220004992), Kingsville (220003403), Essex (220003680), and Lakeshore (260004995).		
Distribution	Please See Individual Annual Reports for Distribution System Information: Leamington (220004992), Kingsville (220003403), Essex (220003680), and Lakeshore (260004995).		

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	January 12, 2016	0.02	ug/L	No
Atrazine + N-dealkylated metabolites	January 12, 2016	0.01	ug/L	No
Atrazine	January 12, 2016	0.01	ug/L	No
Azinphos-methyl	January 12, 2016	0.05	ug/L	No
Benzene	January 12, 2016	0.32	ug/L	No
Benzo(a)pyrene	January 12, 2016	0.004	ug/L	No
Bromoxynil	January 12, 2016	0.33	ug/L	No
Carbaryl	January 12, 2016	0.05	ug/L	No
Carbofuran	January 12, 2016	0.01	ug/L	No
Carbon Tetrachloride	January 12, 2016	0.16	ug/L	No
Chlorpyrifos	January 12, 2016	0.02	ug/L	No
Desethyl atrazine	January 12, 2016	0.01	ug/L	No
Diazinon	January 12, 2016	0.02	ug/L	No
Dicamba	January 12, 2016	0.20	ug/L	No
1,2-Dichlorobenzene	January 12, 2016	0.41	ug/L	No



1,4-Dichlorobenzene	January 12, 2016	0.36	ug/L	No
1,2-Dichloroethane	January 12, 2016	0.35	ug/L	No
1,1-Dichloroethene (vinylidene chloride)	January 12, 2016	0.33	ug/L	No
Dichloromethane	January 12, 2016	0.35	ug/L	No
2-4 Dichlorophenol	January 12, 2016	0.15	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	January 12, 2016	0.19	ug/L	No
Diclofop-methyl	January 12, 2016	0.40	ug/L	No
Dimethoate	January 12, 2016	0.03	ug/L	No
Diquat	January 12, 2016	1.0	ug/L	No
Diuron	January 12, 2016	0.03	ug/L	No
Glyphosate	January 12, 2016	1.0	ug/L	No
Malathion	January 12, 2016	0.02	ug/L	No
MCPA	January 12, 2016	0.12	ug/L	No
Metolachlor	January 12, 2016	0.01	ug/L	No
Metribuzin	January 12, 2016	0.02	ug/L	No
Monochlorobenzene	January 12, 2016	0.3	ug/L	No
Paraquat	January 12, 2016	1.0	ug/L	No
Pentachlorophenol	January 12, 2016	0.15	ug/L	No
Phorate	January 12, 2016	0.01	ug/L	No
Picloram	January 12, 2016	1.0	ug/L	No
Polychlorinated Biphenyls(PCB)	January 12, 2016	0.04	ug/L	No
Prometryne	January 12, 2016	0.03	ug/L	No
Simazine	January 12, 2016	0.01	ug/L	No
THM (NOTE: show latest annual average)	Please See Individual Annual Reports for Distribution System Information: <b>Leamington (220004992), Kingsville (220003403), Essex (220003680), and Lakeshore (260004995).</b>			
Terbufos	January 12, 2016	0.01	ug/L	No
Tetrachloroethylene	January 12, 2016	0.35	ug/L	No
2,3,4,6-Tetrachlorophenol	January 12, 2016	0.20	ug/L	No
Triallate	January 12, 2016	0.01	ug/L	No
Trichloroethylene	January 12, 2016	0.44	ug/L	No
2,4,6-Trichlorophenol	January 12, 2016	0.25	ug/L	No
Trifluralin	January 12, 2016	0.02	ug/L	No
Vinyl Chloride	January 12, 2016	0.17	ug/L	No

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

Parameter	Result Value	Unit of Measure	Date of Sample
None			

UW/08/17

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

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

**Date:** February 6, 2017

**Re:** 2016 Summary Report for Municipalities under Regulation 170/03 made under the Safe Drinking Water Act



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**Aim:**

To provide to the Board a Summary Report for Municipalities for 2016 as required under Schedule 22 of Regulation 170/03 made under the Safe Drinking Water Act 2002.

**Background**

Schedule 22 of O. Reg. 170/03 requires a water system owner to prepare a "Summary Report for Municipalities". This requirement is applicable only to large and small municipal residential water systems. The UWSS is classified as a large municipal residential water system since it provides drinking water to greater than 10,000 year round residents.

The Summary Report for the preceding year is to be prepared and issued by March 31 of the following year.

The Summary Report must be distributed by the owner of the water system. In particular it must be given to the council or board that owns the system. There are three ownership cases described under the Schedule:

- If the water supply is owned by a municipality then all members of council are to receive the report.
- If owned by a municipal service board established under Section 195 of the Municipal Act, 2001 then all members of that board are to receive the report.
- If owned by a corporation then the board of directors is to receive the report.

Although not explicitly covered by any of the situations above, the UWSS Board is clearly the owner of the Union Water Supply System for the purposes of the regulation.

Also, where a water system provides potable water to another system under contract then the owner of the supplying system shall give, by March 31, a copy of the Summary Report to the system being supplied. Since UWSS provides drinking water to the local municipal drinking water systems owned and operated by the Town of Lakeshore, Town of Essex, Town of Kingsville and Municipality of Leamington

February 9, 2017 - UW/08/17

Re: 2016 Summary Report under the SDWA and Ontario Reg. 170/03

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The contents of the Summary Report for Municipalities must include the following:

1. A list of the requirements of the Safe Drinking Water Act and its Regulations that the water system failed to meet during the year covered including the duration of the failure.
2. A list of the requirements of the water system's Certificate of Approval, drinking water works permit or municipal drinking water license that the water system failed to meet during the year covered including the duration of the failure.
3. A list of any Orders that the water system failed to meet during the year covered including the duration of the failure.
4. For each of the above failures, a description of the measures taken to correct the failures.
5. A summary of the quantities and flow rates of the water supplied during the year covered "including monthly average and maximum daily flows and daily instantaneous peak flow rates." (Information is to enable the owner to assess the capability of the water system to meet existing and future uses.).
6. A statement that captures the comparison of the flow information above to the rated capacity and flow rates approved in the water supply's approval.

### Discussion

The attached Summary Report fulfils the requirements of Schedule 22 listed above. It will also fulfil the requirements for the municipalities when it is presented to each municipal council for the municipal water supply system supplied with water by the Union Water Supply System if council so wishes.

The UWSS and its participating municipalities were in compliance with all requirements of Ontario Drinking Water legislation and regulations in 2016, except for the noted occurrences in the Summary Report.

### Recommendation

That the Board receive the Summary Report for 2016 which fulfils the requirements of Schedule 22 of Ontario Regulation 170/03; and

That the Summary Report be forwarded to the four participating municipalities namely the Town of Kingsville, Town of Essex, Town of Lakeshore, and Municipality of Leamington.

Respectfully submitted,



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

## UNION WATER SUPPLY SYSTEM SUMMARY REPORT 2016

For the Union Water Supply System  
(Made under Schedule 22 of Ontario Regulation 170/03, a regulation made under  
the Safe Drinking Water Act, 2002)

### **EXPLANATION**

Schedule 22 of Ontario Regulation 170/03, a regulation made under the Safe Drinking Water Act, 2002 requires that a large municipal residential drinking-water system must provide to its board members a Summary Report on various aspects of the system before March 31 of the following year. The Union Water Supply System is classed as a large municipal residential drinking-water system and all of the municipal water systems that obtain water from it are classified as large municipal residential drinking-water systems and are therefore subject to Schedule 22.

The Summary Report must list the following:

- The requirements of the Safe Drinking Water Act, 2002 that the system failed to meet during the period covered by the Summary Report
- The requirements of the regulations made under the Safe Drinking Water Act, 2002 that the system failed to meet during the period covered by the Summary Report
- Any condition of the drinking-water system's drinking water works permit or municipal drinking water license that the system failed to meet during the period covered by the Summary Report
- Any order that the system failed to meet during the period covered by the Summary Report, the duration of any such failure and any measures that were taken to correct such failure
- A summary of the quantities and flow rates of water supplied by the drinking-water system by monthly average and maximum daily flow rates and instantaneous peak flow rates
- A comparison of actual flow rates with rated capacity and flow rates in the systems approval

A drinking-water system that supplies water to another drinking water system must provide a copy of the Summary Report to that system's owner by March 31 of the year following the year covered in the Summary Report.

The sections below details the occasions on which the Union Water Supply System (UWSS) and the connected municipal water systems failed to meet the requirements of the Safe Drinking Water Act 2002, associated regulations, system approvals and provincial officer orders in 2016.

### **Union Water Supply System (UWSS)**

The following provides details of occurrences where the Union Water Supply System was not in compliance with the requirements of the Safe Drinking Water Act 2002, associated regulations, system approvals and provincial officer orders.

#### **Non-Compliance Item:**

The following Adverse Water Quality Incident (AWQI) identified for the Union Water Supply System.

- AWQI #129180 - April 15, 2016 failure to maintain coagulant continuously. It was discovered that coagulant was not flowing continuously to Clarifier #1 for approximately twelve (12) hours. The Clarifier was taken out of service and will not return to service until flow monitoring devices are in place.

### Leamington Water Distribution System

#### Non-Compliance Item:

The following Adverse Water Quality Incident (AWQI) identified for the Leamington Distribution System that is supplied by the Union Water Supply System.

- AWQI #129976 - June 28, 2016 - Bacti adverse at sample station SS-L-9 with 1 Total Coliform. Town of Leamington staff flushed affected area, then samples were taken upstream and downstream. A second set of samples were taken 24 hours later upstream and downstream. All results returned were within normal parameters.
- AWQI#130589 - August 3, 2016 - Bacti adverse at sample station SS-L-15 with 8 Total Coliform. Town of Leamington staff flushed affected area, then samples were taken upstream and downstream. A second set of samples were taken 24 hours later upstream and downstream. All results returned were within normal parameters.

### Kingsville Water Distribution System

#### Non-Compliance Item:

The following Adverse Water Quality Incident (AWQI) identified for the Kingsville Distribution System that is supplied by the Union Water Supply System.

- AWQI #129835 - June 20, 2016, Chlorine residual reading at CRA01 and Cottam Booster Station displayed less than 0.25ppm for 20-25 minutes. Initial cause was a piece of debris caught in the check valve of the ammonia pump restricting flow. The debris was removed and normal flow returned. Weekly bacti samples were taken and all CL2 residuals were normal.
- AWQI #130343 - July 19, 2016, Bacti adverse at sample station SS-K-14 with 2 Total Coliform. Town of Kingsville staff flushed affected area, then samples were taken upstream and downstream. A second set of samples were taken 24 hours later upstream and downstream. All results were within normal parameters.
- AWQI #130987 - August 30, 2016, Watermain break on County Road 34. Pressure was below 20 psi from 10 pm to 12 am (2 hrs). Main break was isolated and fed from another source eliminating the low pressure. Bacti samples and chlorine residuals were taken the next morning.

### Essex Water Distribution System

#### Non-Compliance Item:

The following Adverse Water Quality Incident (AWQI) identified for the Kingsville Distribution System that is supplied by the Union Water Supply System

- AWQI #129303 - April 27, 2016, Watermain break at 341 Talbot Street Road West, with possible cross contamination with sanitary line. Watermain break was repaired and isolated section of



watermain was flushed. Bacti samples were taken at the main break site, as well as upstream and downstream from the break site.

### Lakeshore Water Distribution System

There were no non-compliances or AWQIs identified for the portion of the Town of Lakeshore Water Distribution System that is supplied by Union Water Supply System:

### SUMMARY OF THE QUANTITIES AND FLOW RATES OF WATER SUPPLIED DURING THE PERIOD COVERED BY THE REPORT, INCLUDING MONTHLY AVERAGE AND MAXIMUM DAILY FLOWS, AND DAILY INSTANTANEOUS PEAK FLOW RATES

The following sections provide information in regards to the Union Water Supply System's Permit to Take Water, issued under Ontario Regulation 387/04 and Drinking Water License issued under the Safe Drinking Water Act, 2002.

### Permit to Take Water

The Union Water Supply System operated under Permit to Take Water (PTTW) Number 0685-6AKRP3 for January to March 2016 and 0816-9T9SVT for April to December 2016. The PTTW has the following flow conditions:

- Maximum Allowable Amount Taken per Minute (Litres/Min) 113,650
- Maximum Allowable Amount Taken Per Day (Litres/Day) 163,656,000

The maximum amounts of raw water taken during 2016 (see Table 1 below) are as follows:

- Maximum Amount Taken per Minute in 2016 (Litres/Min) 68,945
- Maximum Amount Taken Per Day in 2016 (Litres/Day) 83,507,000

The system did not exceed the PTTW limits in 2016.

### Drinking Water License

The UWSS operates under Municipal Drinking Water Licence 041-01; issue Number 4 which has been issued for the period July 21, 2014 to July 20, 2019. The Certificate of Approval and licence had the following condition:

- The drinking water system shall not be operated to exceed 124,588 m<sup>3</sup>/d (27.4 MIGD) on any calendar day, conveyed from the treatment system to the distribution system.
- The maximum daily volume of water pumped into the distribution system was 71,369 m<sup>3</sup> (15.699 MIGD).

Tables 1A through 3B below provide the monthly average, maximum and peak flows for raw and treated water for the Union Water Supply System.

**Table 1A**  
**2016 Raw Water Taking from Lake Erie in Metric Units**

	Maximum Allowed Flow Rate (m3/Day)	Average Flow (m3/Day)	Maximum Flow (m3/Day)	Maximum Flow (Litres/Day)	Maximum Allowed Flow Rate (Litres/ Minute)	Peak Flow (Litres/ Minute)
January	163,656	26,039	30,846	30,846,000	113,650	24,359
February	163,656	30,228	35,697	35,697,000	113,650	33,301
March	163,656	34,383	49,266	49,266,310	113,650	41,161
April	163,656	45,572	61,913	61,912,850	113,650	45,419
May	163,656	49,694	67,874	67,874,050	113,650	55,194
June	163,656	67,120	79,104	79,104,000	113,650	65,841
July	163,656	62,802	74,428	74,427,990	113,650	63,690
August	163,656	67,514	83,507	83,507,000	113,650	68,945
September	163,656	56,139	66,132	66,132,000	113,650	60,648
October	163,656	40,785	54,705	54,704,560	113,650	47,146
November	163,656	37,712	44,381	44,381,490	113,650	33,310
December	163,656	28,939	38,327	38,327,000	113,650	31,940

**Table 1B**  
**2016 Raw Water Taking from Lake Erie in Imperial Units**

	Maximum Allowed Flow Rate (MGD)	Average Flow (MGD)	Maximum Flow (MGD)	Maximum Allowed Flow Rate (Gallons/ Minute)	Peak Flow (Gallons/ Minute)
January	36.00	5.73	6.79	25,000	5,358
February	36.00	6.66	7.85	25,000	7,325
March	36.00	7.56	10.84	25,000	9,054
April	36.00	10.02	13.62	25,000	9,991
May	36.00	10.93	14.93	25,000	12,141
June	36.00	14.76	17.40	25,000	14,483
July	36.00	13.81	16.37	25,000	14,010
August	36.00	14.85	18.37	25,000	15,166
September	36.00	12.35	14.55	25,000	13,341
October	36.00	8.97	12.03	25,000	10,371
November	36.00	8.30	9.76	25,000	7,327
December	36.00	6.37	8.43	25,000	7,026

**Table 2A****2016 Treated Water Flow Into Distribution System in Metric Units**

	Maximum Allowed Flow Rate (m <sup>3</sup> /Day)	Average Daily Flow (m <sup>3</sup> /Day)	Maximum Daily Flow (m <sup>3</sup> /Day)	Peak Instantaneous Flow (Litres/ Second)
January	124,588	24,671	28,085	581
February	124,588	27,607	33,326	813
March	124,588	32,711	40,818	1,066
April	124,588	39,028	49,586	989
May	124,588	48,240	65,768	1,255
June	124,588	64,732	76,159	1,385
July	124,588	60,836	72,435	1,358
August	124,588	58,899	70,977	1,366
September	124,588	54,282	63,994	1,355
October	124,588	37,725	51,618	1,108
November	124,588	27,800	31,008	932
December	124,588	28,495	35,326	813

**Table 2B****2016 Treated Water Flow Into Distribution System in Imperial Units**

	Maximum Allowed Flow Rate (MGD)	Average Daily Flow (MGD)	Maximum Daily Flow (MGD)	Peak Instantaneous Flow (Gallons/ Second)
January	27.4	5.43	6.18	128
February	27.4	6.07	7.33	179
March	27.4	7.20	8.98	234
April	27.4	8.59	10.91	218
May	27.4	10.61	14.47	276
June	27.4	14.24	16.75	305
July	27.4	13.38	15.94	299
August	27.4	12.96	15.61	300
September	27.4	11.94	14.08	298
October	27.4	8.30	11.36	244
November	27.4	6.12	6.82	205
December	27.4	6.27	7.77	179

**Table 3A**  
**2016 Treated Flow to Local Municipalities in Metric Units**

	<u>Leamington</u>		<u>Kingsville</u>		<u>Essex</u>		<u>Lakeshore</u>	
	Monthly Total (m3)	Average Day (m3/day)	Monthly Total (m3)	Average Day (m3/day)	Monthly Total (m3)	Average Day (m3/day)	Monthly Total (m3)	Average Day (m3/day)
January	340,479	10,983	292,724	9,443	63,333	2,043	36,288	1,171
February	373,157	12,867	318,973	10,999	60,020	2,070	30,055	1,036
March	548,460	17,692	464,104	14,971	66,339	2,140	35,893	1,158
April	552,349	18,412	482,629	16,088	68,726	2,291	33,042	1,101
May	606,887	19,577	559,571	18,051	63,197	2,039	36,029	1,162
June	1,191,509	39,717	1,046,212	34,874	111,384	3,713	70,597	2,353
July	785,668	25,344	630,300	20,332	67,571	2,180	44,177	1,425
August	951,438	30,692	784,928	25,320	82,875	2,673	61,845	1,995
September	811,273	27,042	728,370	24,279	68,836	2,295	35,840	1,195
October	549,397	17,722	433,194	13,974	65,733	2,120	43,626	1,407
November	445,948	14,865	351,615	11,721	66,928	2,231	35,218	1,174
December	361,670	11,667	377,407	12,174	66,134	2,133	36,288	1,171
<b>Total</b>	<b>7,518,235</b>	<b>20,548</b>	<b>6,470,027</b>	<b>17,685</b>	<b>851,076</b>	<b>2,327</b>	<b>498,898</b>	<b>1,362</b>

**Table 3A**  
**2016 Treated Flow to Local Municipalities in Imperial Units**

	<i><u>Leamington</u></i>		<i><u>Kingsville</u></i>		<i><u>Essex</u></i>		<i><u>Lakeshore</u></i>	
	Monthly Total (Imperial Gallons)	Average Day (MGD)	Monthly Total (Imperial Gallons)	Average Day (MGD)	Monthly Total (Imperial Gallons)	Average Day (MGD)	Monthly Total (Imperial Gallons)	Average Day (MGD)
January	74,894,910	2.42	64,390,278	2.08	13,931,312	0.45	7,982,244	0.26
February	82,083,065	2.83	70,164,251	2.42	13,202,554	0.46	6,611,176	0.23
March	120,644,334	3.89	102,088,608	3.29	14,592,540	0.47	7,895,356	0.25
April	121,499,794	4.05	106,163,538	3.54	15,117,607	0.50	7,268,224	0.24
May	133,496,477	4.31	123,088,412	3.97	13,901,397	0.45	7,925,272	0.26
June	262,095,339	8.74	230,134,467	7.67	24,501,055	0.82	15,529,169	0.52
July	172,822,799	5.57	138,646,617	4.47	14,863,542	0.48	9,717,581	0.31
August	209,287,102	6.75	172,660,022	5.57	18,229,951	0.59	13,603,998	0.44
September	178,455,112	5.95	160,219,001	5.34	15,141,803	0.50	7,883,698	0.26
October	120,850,445	3.90	95,289,359	3.07	14,459,239	0.47	9,596,378	0.31
November	98,094,846	3.27	77,344,487	2.58	14,722,102	0.49	7,746,877	0.26
December	79,556,278	2.57	83,017,934	2.68	14,547,446	0.47	7,982,244	0.26
<b>Total</b>	<b>1,653,780,501</b>	<b>4.52</b>	<b>1,423,206,976</b>	<b>3.89</b>	<b>187,210,548</b>	<b>0.51</b>	<b>109,742,218</b>	<b>0.30</b>

UW/09/17

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

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

**Date:** February 10, 2017

**Re:** Payments for the UWSS from January 16 to February 10, 2017



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**Aim:**

To provide the Board with a copy of payments made by the Union Water Supply System from January 16 to February 10, 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\uw09-17 payments january to february 2017.docx



Vendor : 001410 To PT00000114  
 Batch : All  
 Department : All

Cheque Print Date : 12-Jan-2017 To 16-Jan-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				
<b>DEPARTMENT 0700 Union Water System</b>					
<b>020120 BELL MOBILITY CELLULAR</b>					
514877178-JAI	MONTHLY CELL CHARGES		8 01-Jan-2017	12-Jan-2017	
70-5-0700-7110	002070 002083 Telecommunications Usage				46.33
<b>030217 CANADIAN WATER NETWORK</b>					
2017CMWC11	2017 CWN STUDIES (TOXIC ALGAE)		20 01-Jan-2017	12-Jan-2017	
70-5-0700-7989	002070 Operational Programs & Studies				25,000.00
<b>200348 CORPORATION OF THE TOWN OF KINGSVILLE</b>					
590-02800-MAI	MADDOX DRAIN 2016		813 30-Dec-2016	12-Jan-2017	
70-5-0700-6750	002072 Property Tax				24.11
<b>050003 E.L.K. ENERGY INC</b>					
40010915-NOV	1557KWH - ESSEX WATER TOWER		813 31-Dec-2016	12-Jan-2017	
70-5-0700-7420	002073 Electricity				250.30
40047150-NOV	339KWH - METER#9		813 31-Dec-2016	12-Jan-2017	
70-5-0700-7420	002073 Electricity				69.97
90006300-NOV	14269KWH - COTTAM BOOSTER STATION		813 31-Dec-2016	12-Jan-2017	
70-5-0700-7420	002073 Electricity				3,384.42
<b>080250 HYDRO ONE NETWORKS INC</b>					
200141680894	NOV/16 HYDRO - LEAM. WATER TOWER		813 31-Dec-2016	12-Jan-2017	
70-5-0700-7420	002073 Electricity				456.30
200141682009	NOV/16 HYDRO - ALBUNA WATER TOWER		813 31-Dec-2016	12-Jan-2017	
70-5-0700-7420	002073 Electricity				779.31
200141683019	NOV/16 HYDRO - METER#3		813 31-Dec-2016	12-Jan-2017	
70-5-0700-7420	002073 Electricity				48.21
200141683120	NOV/16 HYDRO - METER#5		813 31-Dec-2016	12-Jan-2017	
70-5-0700-7420	002073 Electricity				43.65
200141683423	NOV/16 HYDRO - METER#6		813 31-Dec-2016	12-Jan-2017	
70-5-0700-7420	002073 Electricity				42.01
<b>130620 MONARCH OFFICE SUPPLY INC</b>					
496250	PAPER, PENS		813 07-Dec-2016	12-Jan-2017	
70-5-0700-7010	002070 002060 Office Supplies				70.15
<b>150365 ONTARIO CLEAN WATER AGENCY</b>					
INV000091485	DEC/16 OPER&MTCE		813 31-Dec-2016	12-Jan-2017	
70-5-0700-6720	002071 OCWA Operating Contract				219,455.51
<b>180325 RICOH CANADA INC</b>					
SCO91385376	DEC/16 COPIER CONTRACT		813 30-Dec-2016	12-Jan-2017	
70-5-0700-7010	002070 002060 Office Supplies				97.11
<b>190755 SUN LIFE ASSURANCE COMPANY OF CANADA</b>					
JAN-17	UNION WATER LOAN 3724:1		20 01-Jan-2017	12-Jan-2017	
70-5-0700-6000	002020 006901 Debenture Principal				9,803.54
70-5-0700-6100	002010 006901 Debenture Interest				127,878.50
<b>Department Totals :</b>					<b>387,449.42</b>



**Vendor :** 001410 To PT00000114  
**Batch :** All  
**Department :** All

**Cheque Print Date :** 19-Jan-2017 To 19-Jan-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				
<b>DEPARTMENT 0700 Union Water System</b>					
<b>030515 CUETS FINANCIAL</b>					
ALOFT VAUGHAN ROOM - SMART WATER WORKSHOP		818	29-Nov-2016	19-Jan-2017	
70-5-0700-7040	002070 002002 Training				181.03
BOSTON PIZZ. BUS.MEALS - SMART WATER WORKSHOP		818	30-Nov-2016	19-Jan-2017	
70-5-0700-7040	002070 002001 Training				68.10
70-5-0700-7040	002070 002001 Training				12.26
RCSS-DEC16 MEETING SUPPLIES		818	16-Dec-2016	19-Jan-2017	
70-5-0700-7052	002070 Meeting Expenses				42.56
STAPLES-DEC PORTABLE STORAGE DRIVES		818	29-Dec-2016	19-Jan-2017	
70-5-0700-7010	002070 002060 Office Supplies				136.29
TIM HORTONS COFFEE, TIMBITS - ELDER COLLEGE		818	05-Dec-2016	19-Jan-2017	
70-5-0700-7052	002070 Meeting Expenses				21.30
70-5-0700-7052	002070 Meeting Expenses				8.99
TOR.PARKING-N PARKING - SMART WATER WORKSHOP		818	30-Nov-2016	19-Jan-2017	
70-5-0700-7040	002070 002009 Training				4.00
TOR.PARK.-NC PARKING - SMART WATER WORKSHOP		818	30-Nov-2016	19-Jan-2017	
70-5-0700-7040	002070 002009 Training				15.00
U OF W PARK- PARKING - MEETING W/U OF WINDSOR		818	20-Dec-2016	19-Jan-2017	
70-5-0700-7040	002070 002009 Training				4.50
WALMART-DEI MEETING SUPPLIES		818	16-Dec-2016	19-Jan-2017	
70-5-0700-7052	002070 Meeting Expenses				5.14
ZEHRS-DEC16 MEETING SUPPLIES		818	19-Dec-2016	19-Jan-2017	
70-5-0700-7052	002070 Meeting Expenses				19.07
<b>070142 GREAT LAKES INDUSTRIAL CONTROLS</b>					
032325 COAGULANT PUMP		818	31-Dec-2016	19-Jan-2017	
70-7-0700-8745	700170 Treatment Plant				3,118.80
<b>080250 HYDRO ONE NETWORKS INC</b>					
200141677460 DEC/16 HYDRO - RUTHVEN WTP		818	31-Dec-2016	19-Jan-2017	
70-5-0700-7420	002073 Electricity				51,665.93
200141680692 DEC/16 HYDRO - LOW LIFT		818	31-Dec-2016	19-Jan-2017	
70-5-0700-7420	002073 Electricity				26,249.33
200141690190 DEC/16 HYDRO - METER#26		818	31-Dec-2016	19-Jan-2017	
70-5-0700-7420	002073 Electricity				126.45
<b>160592 PUBLIC SECTOR DIGEST INC</b>					
8189 2017 CITYWIDE TANGIBLE ASSETS SOFTWARE		26	01-Jan-2017	19-Jan-2017	
70-5-0700-7260	002070 002131 Software Licensing & Support				2,904.16
<b>190751 SUMMA ENGINEERING LIMITED</b>					
113391-2016 SCADA STRATEGY REPORT		818	31-Dec-2016	19-Jan-2017	
70-5-0700-7989	002070 Operational Programs & Studies				29,945.00
<b>210120 UNION GAS LTD</b>					
DEC16 177-671 1208.033M3 GAS - COTTAM BOOSTER STN		818	31-Dec-2016	19-Jan-2017	
70-5-0700-7410	002073 Gas				359.23
<b>Department Totals :</b>					<b>114,887.14</b>





Vendor : 001410 To PT00000114  
 Batch : All  
 Department : All

Cheque Print Date : 26-Jan-2017 To 27-Jan-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			
<b>DEPARTMENT 0700 Union Water System</b>							
<b>010103 ASSOCIATED ENGINEERING (ONT) LTD</b>							
522075				WATER QUALITY MP - JAN13-17	43 18-Jan-2017	26-Jan-2017	
70-5-0700-7989	002075			Operational Programs & Studies			15,377.72
<b>060038 FASTENAL CANADA LTD</b>							
ONLEA146911				FILTER VALVE REPLACEMENT PARTS	43 06-Jan-2017	26-Jan-2017	
70-7-0700-8730	700012			Filters			1,090.91
<b>070064 GESCAN</b>							
221926-01				PLC SYTEM POWER SUPPLIES	821 08-Dec-2016	26-Jan-2017	
70-7-0700-8745	700080			Treatment Plant			1,819.03
<b>080250 HYDRO ONE NETWORKS INC</b>							
200152134969				DEC/16 HYDRO - METER#17	821 31-Dec-2016	26-Jan-2017	
70-5-0700-7420	002073			Electricity			48.23
200208899066				DEC/16 HYDRO - METER#16	821 31-Dec-2016	26-Jan-2017	
70-5-0700-7420	002073			Electricity			177.20
<b>230690 WJF INSTRUMENTATION (1990) LTD</b>							
20386				TURBIDITY MONITOR	43 13-Jan-2017	26-Jan-2017	
70-7-0700-8720	700002			Clarifiers			8,842.25
<b>Department Totals :</b>							<b>27,355.34</b>



Vendor : 001410 To PT00000114  
 Batch : All  
 Department : All

Cheque Print Date : 02-Feb-2017 To 02-Feb-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				
<b>DEPARTMENT 0700 Union Water System</b>					
<b>080250 HYDRO ONE NETWORKS INC</b>					
200141680894	DEC/16 HYDRO - LEAM. WATER TOWER	824	31-Dec-2016	02-Feb-2017	
70-5-0700-7420	002073 Electricity				566.54
70-5-0700-7420	002073 Electricity				-4.58
200141681706	DEC/16 HYDRO - METER#2	824	31-Dec-2016	02-Feb-2017	
70-5-0700-7420	002073 Electricity				59.51
70-5-0700-7420	002073 Electricity				-0.35
200141683019	DEC/16 HYDRO - METER#3	824	31-Dec-2016	02-Feb-2017	
70-5-0700-7420	002073 Electricity				60.43
70-5-0700-7420	002073 Electricity				-0.48
200141683423	DEC/16 HYDRO - METER#6	824	31-Dec-2016	02-Feb-2017	
70-5-0700-7420	002073 Electricity				52.00
70-5-0700-7420	002073 Electricity				-0.41
200141683524	DEC/16 HYDRO - METER#8	824	31-Dec-2016	02-Feb-2017	
70-5-0700-7420	002073 Electricity				49.35
70-5-0700-7420	002073 Electricity				-0.28
200141683726	DEC/16 HYDRO - METER#15	824	31-Dec-2016	02-Feb-2017	
70-5-0700-7420	002073 Electricity				34.18
200141687362	DEC/16 HYDRO - METER#22	824	31-Dec-2016	02-Feb-2017	
70-5-0700-7420	002073 Electricity				73.05
70-5-0700-7420	002073 Electricity				-0.43
200141687766	DEC/16 HYDRO - METER#29	824	31-Dec-2016	02-Feb-2017	
70-5-0700-7420	002073 Electricity				42.23
70-5-0700-7420	002073 Electricity				-0.25
200141687867	DEC/16 HYDRO - METER#24	824	31-Dec-2016	02-Feb-2017	
70-5-0700-7420	002073 Electricity				34.10
70-5-0700-7420	002073 Electricity				-0.21
<b>210120 UNION GAS LTD</b>					
DEC-JAN17 20	12-18073.440M3 GAS - RUTHVEN WATER TREATMENT	824	31-Dec-2016	02-Feb-2017	
70-5-0700-7410	002073 Gas				5,446.44
DEC-JAN17 21	12-2239.413M3 GAS - LOW LIFT	824	31-Dec-2016	02-Feb-2017	
70-5-0700-7410	002073 Gas				685.27
<b>Department Totals :</b>					<b>7,096.11</b>