JOINT BOARD OF MANAGEMENT

Wednesday, February 17, 2021
9:00 AM
Virtually in Zoom

AGENDA

A. Call to Order:

B. Disclosures of Pecuniary Interest:

C. Approval of Minutes:

Minutes of the meeting of the Union Water Supply System Joint Board of Management Meeting held Wednesday, January 20, 2021
Pages 3 - 12

D. Business Arising Out of the Minutes

E. Items for Consideration:

1. UW/09/21 dated February 11, 2021 re: Status Update of UWSS Operations & Maintenance Activities and Capital Works to February 11, 2021
   Pages 13 - 14

2. UW/10/21 dated February 10, 2021 re: Revision to Schedule C (Proportional Water Consumption and System Interest) of UWSS Transfer Order
   Pages 15 - 17

3. UW/11/21 dated February 11, 2021 re: Drinking Water Inspection Report for the UWSS – January 28, 2021
   Pages 18 - 40

4. UW/12/21 dated February 10, 2021 re: 2020 Annual Report under the Safe Drinking Water Act and Ontario Regulation 170/03
   Pages 41 - 50

5. UW/13/21 dated February 10, 2021 re: 2020 Summary Report for Municipalities under Regulation 170/03 made under the Safe Drinking Water Act.
   Pages 51 - 59

6. UW/14/21 dated February 12, 2021 re: Payments from January 16th to February 2021
   Pages 60 - 68

F. New Business:

G. Adjournment:

H. Date of Next Meeting: March 17, 2021, Virtually in Zoom

/kmj

JOINT BOARD OF MANAGEMENT

Wednesday, January 20, 2021
9:00 AM
Virtually in Zoom

MINUTES

Members Present:	Mayor MacDonald (Vice-Chair); Deputy Mayor Verbeke, Councillors Hammond, Jones, Tiessen – Leamington Mayor Nelson Santos (Chair); Deputy Mayor Queen, Councillors Gaffan (alternate) DeYong, Patterson – Kingsville Councillor VanderDoelen - Essex Councillor Walstedt - Lakeshore
Members Absent:	Councillor Neufeld - Kingsville Councillor Dunn - Leamington
Staff Present:	Kevin Girard – Essex Andrew Plancke, Shaun Martinho, Tiffany Hong – Kingsville Laura Rauch, Shannon Belleau, Nelson Carvalho – Leamington Nelson Cavacas, Krystal Kalbol - Lakeshore
OCWA Staff Present:	Dale Dillen, Ken Penney, Susan Budden

Call to Order: 9:02 am

Election of Chair for the UWSS Joint Board of Management

The Manager calls the meeting to order and calls for nominations for the position of Chair. Deputy Mayor Queen calls for the nomination of Mayor Santos for the position. He notes that Mayor MacDonald has done a good job with the position but notes that occasionally a fresh approach might be wise as well. Mayor MacDonald seconds the nomination

Mayor Santos accepts the nomination.

Deputy Mayor Verbeke calls for the nomination of Mayor MacDonald for the position of Chair. The nomination is seconded by Councillor Walstedt. Mayor MacDonald declines the position this year.

Mayor Santos is acclaimed as Chair for the Union Water Supply System Joint Board of Management for a term ending December 31, 2021.

No. UW-01-21

Moved by: Councillor Tiessen

Seconded by: Councillor VanderDoelen

That Mayor Santos is the Chair of the UWSS Joint Board of Management for the year 2021, with the term ending on December 31, 2021.

Carried

Mayor Santos takes over the meeting

Election of Vice-Chair for the Union Water Supply System Joint Board of Management

The Chair calls for nominations for the position of Vice-Chair for the UWSS Joint Board of Management.

Deputy Mayor Queen nominates Mayor MacDonald. Councillor DeYong seconds the nomination.

Mayor MacDonald accepts the nomination and is acclaimed to the position of Vice-Chair.

No. UW-02-21

Moved by; Deputy Mayor Queen

Seconded by: Councillor DeYong

That Mayor MacDonald will hold the position of Vice-Chair for the UWSS Joint Board of Management for the year 2021, with the term ending on December 31, 2021.

Disclosures of Pecuniary Interest: none

Adoption of Board Minutes:

No. UW-03-21

Moved by: Councillor Walstedt

Seconded by: Councillor DeYong

That Minutes of the UWSS Joint Board of Management meeting of Wednesday, December 16, 2020 be received.

Carried

Business Arising Out of the Minutes:

There was none.

Report UW/02/21 dated January 15, 2021 re: Changes to the Leamington UWSS Board Member Appointments

The Chair welcomes the newest member of Leamington Council, Trevor Jones, to the Board. Councillor Jones notes that he is excited to be working with the Board and has a strong awareness of Union Water.

No. UW-04-21

Moved by: Deputy Mayor Queen

Seconded by: Councillor Gaffan

That the UWSS receives report UW/02/21 dated January 15, 2021 re: Changes to the Leamington UWSS Board Member Appointments.

Carried (UW/02/21)

Report UW/03/21 dated January 15, 2021 re: Status Update of the UWSS Operations & Maintenance Activities and Capital Works to January 15, 2021

The Manager reviews his report with board members, but notes that with the holidays between meetings not as much has been completed as usual.

He notes that the new security system is operational, with a few deficiencies being addressed.

Greenflag Coatings has been retained to complete the epoxy floors in the new lab areas. He was hoping this work would have been completed by the end of January, but since the new stay at home order, this work is deemed non-essential and it will be completed once the order has been lifted.

The new Low Lift transformer and panel/transfer switch electrical service has been completed. This required Hydro One shutting off power. Phasor Industrial of Kingsville completed work, while the UWSS's portable backup generator provided power.

Clean Harbours has been retained to clean out the residual chemicals of the ammonia building. It has now been over a year since the switch to Free Chlorine and it’s unlikely that chloramination will again be used in the foreseeable future. . This building will now be refurbished to a maintenance building. This is also postponed until the end of February due to the stay at home order issued by the Province.

The Manage explains that Golder Associates has been retained to provide geotechnical services to test bore holes for the DAF project. However, they need to wait until the ground is in better condition to continue with the testing.

OCWA retained a local tree service company to remove several trees around the Leamington Water Tower. These trees were in poor health and posed a safety hazard.

The Manager also notes that the Lakeshore portion of the UWSS received a 100% rating on its most recent inspection from the MECP.

Finally, the Manager notes that the flows are up already, however, with it being so early in the year it is not possible to note if this is the trend. He will be monitoring the flows carefully. He does explain that the UWSS is seeing numbers that are not typical for this time of year and the winter flows seem to be higher than those of the past.

No. UW-05-21

Moved by: Deputy Mayor Queen

Seconded by: Councillor Patterson

That report UW/03/21 dated December 11, 2020 re: Status Update of the UWSS Operations & Maintenance Activities and Capital Works to December 11, 2020 is received.

Carried (UW/30/20)

Report UW/04/21 dated January 14, 2021 re: Filters #2 and #4 Upgrades

The Manager reviews his report with the Board and notes that this project was part of the 2021 approved budget. The Manager explains that Filters #2 and #4 are original to the water treatment plant (WTP). He reminds the members of the upgrades to filters #1 and #3, which included new media and filter box recoating several years ago. However, at the time these two (2) filters were not in need of the same repairs.

He notes that Filters #2 and #4 are now leaking and it is time to fully upgrade these filters to the same quality as filters #1 and #3. He also notes that if both filters are completed at the same time there is some cost savings. The Manager had asked for $600,000 for these upgrades as part of the 2021 Budget.

The Manager also notes that this project did not go out to tender, as this is specialized work and wanted the filters to be rehabilitated to the same quality as the previous ones. He did receive quotes from all three (3) contractors: Continental Carbon, JDCMI and Roberts Filter. These quotes came in slightly over the approved budget with Covid-19 adding to some of the costs.

This project needs to be completed now or in the Fall once the flows drop back down. He also notes that the budget increase of $152,000 will be necessary to complete this project.

There were no questions from Board members.

No. UW-06-21

Moved by: Deputy Mayor Queen

Seconded by: Councillor Tiessen

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

And further, that the Board approves a budget of $752,410 to be funded from the UWSS Reserves for Filters #2 and #4 Upgrades including rehabilitation of the cement filter box, installation of new underdrains and installation of new filter media and includes $50,000 for inspection services and contingency purposes.

And further, that the UWSS Board authorizes the UWSS General Manager to direct source this work to:

- Jacques Daoust Coatings Management, Inc for rehabilitation and recoating of concrete filters boxes for Filters #2 and #4 in the amount of $252,600 ($126,300 per filter) not inclusive of HST and contingency.
- Continental Carbon Group for removals work, installation of new underdrains and supply & installation of new filter media in Filters #2 and #4. This work is valued at $269,810 ($134,905 per filter) not inclusive of HST and contingency.
- Pro-Aqua, Inc. for supply of the Roberts Filter underdrains for Filters #2 and #4 in the amount of $180,000 ($90,000 per filter) no includes of HST.

Carried (UW/04/21)

Report UW/05/21 dated January 14, 2021 re: Clarifier #2 DAF Retrofit- Equipment Supply and Purchase

The Manager explains that this project was approved as part of the 2021 Capital Budget but he is looking for approval for Napier-Reid to move ahead with the retrofit of Clarifier #2 over to dissolved air flotation (DAF).

The Manager explains that Associated Engineering (AE) had been retained in 2016 to identify new treatment process and increase output. The biggest area identified as needing attention was the clarification process. The Manager notes that with greenhouse demand, flows at the plants can change drastically day to day and hour to hour depending on the sunshine. DAF was then presented to the board as a possible resolution to the clarification bottleneck.

AE provided some pre-qualification of the contractors that could potentially complete this work and identified three (3) contractors that would meet our needs. Napier-Reid has been selected as the best for retrofitting a round clarification system, as the other contractors had suggested rectangular modifications that would be more costly. It should be noted that the UWSS has only round clarifiers.

AE then asked Napier-Reid to provide a specification documents to provide costs and that was received in late 2020. AE has provided a recommendation letter to the UWSS, which was attached to this agenda.

The intent is to have the throughput increase from approximately 32 million litres a day up to potentially 70 million litres per day. The intent is to complete two (2) clarifiers with this same retrofit.

The Manager is asking for the increased budget to be approved. The Manager also notes that the cost for this first clarifier upgrade will be higher since some components that will also be used for the second DAF unit need to be installed now.

The Chair asks for clarification on whether this is the same system as explained to the Board a few years back. The Manager notes that it is.

No. UW-07-21

Moved by: Councillor Walstedt

Seconded by: Mayor MacDonald

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

And further, that the UWSS Board authorizes the UWSS General Manager to award the pre-purchase of equipment to retrofit Clarifier #2 with a dissolved air flotation (DAF) system to Napier-Reid, Ltd. in the amount of $3,296,540.

Carried (UW/05/21)

Report UW/06/21 dated January 15, 2021 re: UWSS Water Treatment Capacity Allocation

The Manager reminds members of the Board of his report back in October 2020, which discussed the future growth, allocation of remaining treatment capacity and future capital works. At the time the Board directed the Manager to reach out to the member municipalities to seek support of the remaining treatment allocation, based on current ownership (2017).

The Manager notes that this was the quickest way to divide the allocation, as treatment allocation has always been on a first come first serve basis, and the UWSS has never seen any other application other than for greenhouses. This was not an issue until about two (2) years ago when flows started began increasing.

The Manager did receive responses from three (3) out of the four (4) member municipalities, however, he did note that he spoke to the other municipality verbally. He then notes that Kingsville and Leamington both agree on the current division of the remaining allocation based on ownership. However, Essex does not agree and are asking for a new process to be considered.

The Manager further explains that it is his hope that the UWSS can be re-rated over the next few years to increase capacity and now is probably the best to see if there a better way to allocate treatment capacity.

His recommendation to the Board is to form a working group comprised of appropriate municipal staff and see if a better system can be put in place.

Councillor VanderDoelen notes that the Town of Essex basically owns 6% of the output and the interpretation is that Essex should also own 6% of the allocation. He further notes

that what is currently being proposed is not enough to serve the approved lots. He notes that almost 1000 lots have been approved between Essex and Harrow.

Deputy Mayor Queen indicates that he appreciates that the historical way of completing water application no longer applies and it is worth taking a second look.

Councillor DeYong wants to know where the UWSS is at with applications and further notes that there should be a deadline with the working group and suggests 90 days. The Manager indicates that no decision has been made as to how to proceed. Applications received in the Fall prior to any discussion have been approved. Applications are typically slower in the winter and no moratorium as been put in place by the UWSS Board.

Mayor Santos feels that 90 days might be a struggle to complete a working group and notes the remaining allocation will not be used up in this time period.

Councillor VanderDoelen notes that he will have to oppose the motion until he can consult with municipal staff. He is fearful this could jeopardize any developments that are already in place. He asks that the motion be delayed until the next meeting.

Councillor Tiessen asks how long before the UWSS can see this increased capacity through re-rating and secondly suggests a working group of 120 days. The Manager notes that he is hoping to have the increase in capacity by hopefully the end of 2022. Councillor Tiessen also suggests that this discussion shows why the UWSS should be a stand alone corporation.

Mayor MacDonald agrees that a time line needs to be put on any working group. She also notes that she does not want to see this board move in the direction of being territorial, as it was when she started. She notes that this board has always worked cohesively together and water flow determines how many people sit on the board. The greenhouse industry may have to be involved and put in the waterlines themselves. She asks the Manager to remind members how expansion is paid for currently.

The Manager briefly explains the historical rate structure and how it is now with one rate. He explains that UWSS uses wholesale water rates with all the money going into one pot. He reminds members of his report from October which suggested that growth pay for growth. UWSS should not make a decision on who gets what but rather ensuring that there is adequate water to meet the demands.

Mayor Santos briefly goes through the history on some of the special rates and notes that he respects Essex's decision however, 900 homes will not be built in the next six (6) months.

Councillor Walstedt apologizes for not having an official response from Lakeshore and asks if there is an issue deferring for one (1) month. Councillor DeYong asks if a legal opinion is required at this point.

The Manager then explains that his hope for the working group is that it will be comprised of municipal experts, including the planners. The Manager does note that he has already received an opinion on the transfer order and it includes how system ownership is completed, which is done every four (4) years but it does not identify that each municipal

owner owns a specific allocation of treatment plant capacity. The ownership review is scheduled to be completed again this month (the last time was 2017), with a report coming to the board in February, and there will be some significant changes with the ownership allocation, but again notes that future growth and treatment cannot be reserved.

No. UW-08-21

Moved by: Deputy Mayor Queen

Seconded by: Councillor Patterson

It is recommended that the Union Water Supply Joint Board of Management (UWSS Board) receives this report for information;

And further, that the UWSS Board supports the formation of a working group consisting of UWSS and municipal administration representatives to address the issue of treatment capacity allocation and develop a more robust and equitable application process for allocation of UWSS treatment capacity;

And further, that the any working group formed has 120 days to complete any discussions;

And further, that the UWSS Board directs the UWSS General Manager to send written correspondence to Administration of UWSS owner municipalities requesting their support and participation of the aforementioned working group;

And further, that the UWSS allocation is based on current ownership balance of capacity, on an interim basis.

Carried (UW06/21)

1 opposed

Report UW/07/21 dated January 15, 2021 re: Kingsville Water Tower (KWT) Rehabilitation Project Tender Results

The Manager reminds members that this was an approved project in the 2020 budget but was unable to be completed to the initial Covid-19 shutdown. Therefore it was carried over to the 2021 budget with approved monies at $1.4 million. UWSS had retained OCWA Engineering services as the project engineer for this work. OCWA Engineering services sent this out to tender with seven (7) experts in the field. He notes that bids were received at the beginning of January 2021 and reviewed by OCWA staff and the Manager.

The lowest bid came from JDCMI at $1.56 million with other bidders being significantly higher. There is a provisional cost included in the bid, which includes items that could potentially need to be completed, but that information won't be known until the start of the project. The Manager also indicates that JDCMI had the shortest project completion time of the bidders. He is hoping to have the project started in April when ground and weather conditions will be better to work in, until that time shop drawings will be completed.

Councillor VanderDoelen asks what the lifespan on a water tower is and how many rehabilitations can be completed. The Manager explains that by maintaining the water towers with new coatings his hope is that this will allow the water tower to last at least another 25 years.

Councillor Gaffan is concerned about the timeline. He does not want to have to tell residents that the contractors go way over. The Manager indicates that the provisional items could potentially add 15-20 days, however, JDCMI completed both the LWT and the EWT to satisfaction.

No. UW-09-21

Moved by: Councillor Patterson

Seconded by: Councillor Hammond

That the Union Water Supply System (UWSS) Board receives this report for information;

And further that the UWSS Board approves a budget of $1,650,000 for the Rehabilitation of the Kingsville Water Tower;

And further that the UWSS Board authorizes the UWSS General Manager to award the Kingsville Water Tower Rehabilitation Project contract to Jacques Daoust Coatings Management Inc. (JDCMI) of Cambridge, Ontario for a sum of $1,596,500.

Carried (UW/07/21)

Report UW/08/21 dated January 14, 2021 re: Payments from December 2020 to January 14, 2021

No. UW-10-21

Moved by: Deputy Mayor Verbeke

Seconded by: Councillor DeYong

That report UW/08/21 dated January 14, 2021 re: Payments from December 2020 to January 14, 2021 is received.

Carried (UW/08/21)

New Business

Councillor Patterson wants to acknowledge the repair crew of a watermain break off of County Road 20 recently. He notes it was a very deep line and a substantial break. At the same time he notes that a member of a water crew in Michigan lost his life doing similar work.

Councillor Patterson is proud of the local crew and all of the safety procedures in place during this recent break and thought it should be acknowledged.

The Manager thanks the crew for the repairs made, as well as the contractors we work with.

Adjournment:

No. UW-11-21

Moved by: Councillor Gaffan

Seconded by: Councillor VanderDoelen

That the meeting adjourn at10:28 am

Carried

Date of Next Meeting: Wednesday, February 17, 2021 in zoom

/kmj

UW/09/21

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

From: Rodney Bouchard, UWSS General Manager

Date: February 12, 2021

Re: Status Update of UWSS Operations & Maintenance Activities and Capital Works to February 12, 2021

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 January 20, 2021.

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. Empire Communications have addressed the deficiencies that were associated with their new security and access control system at UWSS. This project is now complete.

3. The UWSS intakes were affected by frazil ice on the morning of February 3rd, 2021, which severely limited the amount of raw water coming into the Low Lift plant raw water wells. Backflushing of the intakes was completed in an attempt to clear the ice blockage. During the intake backflushing procedure, the 8" crossover backflush valve stem broke and the valve couldn't be closed. The valve had to be excavated and repaired immediately so as to prevent the shutdown of entire treatment plant.

4. Clarifier #2 went into service on February 3rd, 2021. Clarifier #3 will come off line within the next month to install a new flow meter.

5. The work to rehabilitate Filters #2 and #4 was started on February 1, 2021. A crew from Continental Carbon Group (CCG) has been working to remove the filter media and underdrains. As of the date of this report, the filter media has been removed from both filters and the underdrains have been removed from filter #2. The removal of filter underdrains from filter #4 is also almost complete. Jacques Daoust Coatings Management Inc. (JDCMI) will begin installation of flexible cementitious waterproofing in filter #2 the week of February 22nd. It is anticipated that filter coating for both filters#2 and #4 will be completed by mid-March 2021. This will be followed by installation of Roberts Filter Infinity

Underdrains, which are currently in the manufacturing stage, and then installation of new filter media.

6. The work for the rehabilitation of the Kingsville Water Tower has been started by the General Contractor. The base "foundation" work for the scaffolding around the water tower is set to start on February 16, 2021. It's anticipated that the installation of the scaffold and canvas enclosure around the entire water tower will take approximately 6-7 weeks to complete depending on the weather.

7. Other projects such as the new laboratory construction, retrofitting of former Ammonia Building into maintenance space are currently on-hold due to COVID-19 related restrictions.

The first chart shows comparative flows for 2017 through 2021 in Mega Litres (ML) and the second chart shows Millions of Imperial Gallons (MIG) for the period January 1st to February 11, 2021.

	2017	2018	2019	2020	2021
Flow to Date (ML)	1,109.77	1,244.20	1,261.31	1,315.53	1,565.86
Max Day (ML)	30.36	35.47	38.81	35.64	48.81
Min Day (ML)	20.73	23.56	20.13	25.44	26.74
Average Day (ML)	26.42	29.62	30.03	31.32	37.28
No of Days	42	42	42	42	42

	2017	2018	2019	2020	2021
Flow to Date (MG)	244.121	273.692	277.454	289.382	344.4478
Max Day (MGD)	6.68	7.80	8.54	7.84	10.74
Min Day (MGD)	4.56	5.18	4.43	5.60	5.88
Average Day (MGD)	5.81	6.52	6.61	6.89	8.20
No of Days	42	42	42	42	42

Flows to date are up 250.33 ML (55.07 MIG) or 19.03% from last year. The 2021 flows to date are up 27.03% over the previous 4 year average.

Recommendation:

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

Respectfully submitted,

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

Filename: t:\union wtr\reports to board\2021\uw09-21 uwss operations report for february 2021.docx

UW/10/21

Report

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

From: Rodney Bouchard, Union Water Manager

Date: February 10, 2021

Re: Revision to Schedule C (Proportional Water Consumption and System Interests) of UWSS Transfer Order

Purpose:

To provide the Board with a revision to Schedule C (Proportional Water Consumption & System Interests) of the UWSS Transfer Order.

Background:

The proportion of the UWSS that each municipality owns for the purposes of financial statements is governed by Schedule C of the UWSS Transfer Order. The original system interest was based on 1998 volumes. Schedule C provides that the system interest is to be updated every four years on the basis of the previous four years' flows. The system interest was last updated in 2017 and must now be updated as required by Schedule C. This update will cover the years 2021 through 2024.

The existing system interest is based on the 2013 to 2016 demands for each municipality and was set out in Report UW/03/17, dated January 10, 2017. The system interest as based on 2013-2016 flows (in mega litres) is as follows:

Municipality	Average Water Consumption (ML/year)	Proportional System Interest
The Corporation of the Municipality of Leamington	7,370.6	50.55%
The Corporation of the Town of Kingsville	5,881.2	40.33%
The Corporation of the Town of Essex	871.2	5.97%
The Corporation of the Town of Lakeshore	459.5	3.15%

The following table gives the annual flows in mega litres (ML) for 2017 to 2020, the annual average for the four year period and the average percentage of the annual system flow volume:

	2017 (ML)	2018 (ML)	2019 (ML)	2020 (ML)	Average (ML/yr)	%
Essex	810.5	799.9	814.9	886.0	827.8	4.92%
Kingsville	6,577.5	6,197.6	6,207.8	7,053.2	6,509.1	38.72%
Lakeshore	499.7	482.2	555.7	721.4	564.8	3.36%
Leamington	7,379.0	8,669.4	9,238.0	10,349.5	8,909.0	53.00%
Total:	15,266.7	16,149.1	16,816.4	19,010.1	16,810.7	100%

In accordance with the UWSS Transfer Order, the system interests in Schedule C are to be revised on the basis of the amounts shown in the table above.

Recommendation

Based on the information included in this report, the UWSS General Manager provides the following recommendations to the UWSS Board:

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

Municipality	Average Water Consumption (ML/year)	Proportional System Interest
The Corporation of the Municipality of Leamington	8,909.0	53.00%
The Corporation of the Town of Kingsville	6,509.1	38.72%
The Corporation of the Town of Essex	827.8	4.92%
The Corporation of the Town of Lakeshore	564.8	3.36%

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, 2021 to December 31, 2024.

Respectfully submitted,

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

Filename: t:\union wtr\reports to board\2021\uw10-21 uwss system interest.docx

UW/11/21

To: Chair and Members of the Union Water Supply System (UWSS) Management Board

From: Rodney Bouchard, UWSS Manager

Date: February 11, 2021

Re: Drinking Water Inspection Report for the UWSS – January 28, 2021 Inspection

RECOMMENDATION

That the Union Water Supply System (UWSS) Board receives this report for information.

BACKGROUND

The UWSS is subject to annual inspections by the Ontario Ministry of Environment, Conservation and Parks (MECP) under the Safe Drinking Water Act, 2002 (SDWA) and its associated regulations.

The UWSS was inspected on January 28, 2021 and the final report for that inspection was issued by the MECP on February 11, 2021. The previous inspection was conducted on January 15, 2020. A copy of the MECP's February 11, 2021 inspection report is attached to this report.

DISCUSSION:

MECP inspection reports are written to identify actions that need to be taken due to non-compliance with regulations or recommendations for "best practice" items that should be undertaken for purposes of continual improvements. The January 28, 2021 inspection report includes a section on page 10 titled ***Non-Compliance with Regulatory Requirements and Actions Required.*** No items of non-compliance are identified in the report.

The inspection report also includes a section titled ***Summary of Recommendations and Best Practice Issues***, found on pages 11 of the Final Inspection Report. No recommended actions or best practices issue were identified in the Final Inspection Report.

The report also identifies a 100 percent inspection rating for the UWSS for the January 28, 2021 inspection.

As required by the regulations under the SDWA, the municipal water systems which receive drinking water from the UWSS have been provided with copies of the inspection

report for the January 28, 2021 inspection. Further, the inspection has been posted on the UWSS website www.unionwater.ca .

CONCLUSION

This report is being provided to the Board for information purposes.

Respectfully submitted,

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

Filename: t:\union wtr\reports to board\2021\uw11-21 mecp drinking water inspection report for the uwss for the january 28 2021 inspection.docx

Ontario

Ministry of the Environment, Conservation and Parks

Southwestern Region

620 – 4510 Rhodes Drive
Windsor ON N8W 5K5
Tel.: 519 948-1464
Fax.: 519 948-2396
TTY: 416 456-1234

Ministère de l'Environnement, de la Protection de la nature et des Parks

Direction régionale du Sud-Ouest

620 – 4510, chemin Rhodes
Windsor ON N8W 5K5
Tél. : 519 948-1464
Téléc. : 519 948-2396
ATS : 416 456-1234

File# SI-ES-KI-540

February 11, 2021

Union Water Supply System
1615 Union Avenue
Ruthven, ON
N0P 2G0

Attention: Mr. Rodney Bouchard, Manager
rbouchard@unionwater.ca

Dear Mr. Bouchard:

Re: Union Area Water Supply System
Inspection Report

Please find enclosed the Drinking Water System Inspection Report for the Union Area Water Supply System (DWS#210000853). This year's inspection was conducted remotely and the telephone interview/questionnaire was held on January 28, 2021. There was no physical inspection conducted at your drinking water system this year.

Section 19 of the Safe Drinking Water Act (Standard of Care) creates a number of obligations for individuals who exercise decision-making authority over municipal drinking water systems. Please be aware that the Ministry has encouraged such individuals, particularly municipal councillors, to take steps to be better informed about the drinking water systems over which they have decision-making authority. These steps could include asking for a copy of this inspection report and a review of its findings. Further information about Section 19 can be found in *"Taking Care of Your Drinking Water: A guide for members of municipal council"* found on the Drinking Water Ontario website at www.ontario.ca/drinkingwater.

In order to measure individual inspection results, the Ministry has established an inspection compliance risk framework based on the principles of the Inspection, Investigation & Enforcement (II&E) Secretariat and advice of internal/external risk experts. The Inspection Summary Rating Record (IRR), included as Appendix B of the inspection report, provides the Ministry, the system

owner and the local Public Health Units with a summarized quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance.

IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspectors' Annual Report. If you have any questions or concerns regarding the rating, please contact Marc Bechard, Water Compliance Supervisor, at (519) 490-0761.

Likewise, if you have any questions or concerns regarding this report, please call me at (226) 280-1556.

Yours truly,

Neil Gilbert, P.Eng.
Provincial Officer – Water Inspector
Southwestern Region
Ministry of the Environment, Conservation and Parks
Sarnia District – Windsor Area Office

Encl.

cc: Dr. Wajid Ahmed, Medical Officer of Health, Windsor-Essex County HU, wahmed@wechu.org
Theresa Marentette, CEO and Chief Nursing Officer, Windsor-Essex County HU, tmarentette@wechu.org
Kristy McBeth, Director of Health Protection, Windsor-Essex County HU, kmcbeth@wechu.org
Phil Wong, Manager, Environmental Health, Windsor-Essex County HU, pwong@wechu.org
Victoria Peczulis, Manager, Environmental Health, Windsor-Essex County HU, vpeczulis@wechu.org
Dale Dillen, Sr Operations Manager – Union AWSS, OCWA, ddillen@ocwa.com
Dave Jubenville, Essex Regional Manager, OCWA, djubenville@ocwa.com
Samuel Wen, Process & Compliance Technician, OCWA, swen@ocwa.com
Katie Stammler, Project Manager Source Water Protection, ERCA, kstammler@erca.org
Marc Bechard, Water Compliance Supervisor, MECP Sarnia District, marc.bechard@ontario.ca

Ontario

Ministry of the Environment, Conservation and Parks

UNION AREA WATER SUPPLY SYSTEM

Inspection Report

Site Number:	210000853
Inspection Number:	1-O088M
Date of Inspection:	Jan 28, 2021
Inspected By:	Neil Gilbert

Table of Contents

OWNER INFORMATION:

Company Name: UNION WATER SYSTEM JOINT BOARD OF MANAGEMENT (LEAMINGTON, KINGSVILLE, ESSEX, LAKESHORE)
Street Number: 1615 **Unit Identifier:**
Street Name: UNION Ave
City: RUTHVEN
Province: ON **Postal Code:** N0P 2G0

CONTACT INFORMATION

Type: Operating Authority **Name:** Sam Wen
Phone: (519) 326-4447 **Fax:** (519) 326-0450
Email: swen@owca.com
Title: Process & Compliance Technician

INSPECTION DETAILS:

Site Name: UNION AREA WATER SUPPLY SYSTEM
Site Address: 1615 UNION Avenue RUTHVEN ON N0P 2G0
County/District: KINGSVILLE
MECP District/Area Office: Windsor Area Office
Health Unit: WINDSOR-ESSEX COUNTY HEALTH UNIT
Conservation Authority: Essex Region Conservation Authority
MNR Office: Chatham Regional Office
Category: Large Municipal Residential
Site Number: 210000853
Inspection Type: Special Announced
Inspection Number: 1-O088M
Date of Inspection: Jan 28, 2021
Date of Previous Inspection: Jan 15, 2020

COMPONENTS DESCRIPTION

Site (Name): Union AWSS
Type: Other **Sub Type:** Other
Comments:
The Union Area Water Supply System (Union WSS) is located in Ruthven, Ontario. The drinking water system is owned by, and supplies water to, the municipalities of Kingsville, Leamington, Essex and Lakeshore via the Union Water System Joint Board of Management. Each of these respective municipalities forms part of the board, but each also owns and operates a separate standalone distribution system receiving water from the Union WSS. The drinking water system's total serviced population is approximately 66,600. The Union WSS system is considered a "large municipal residential system" under O. Regulation 170/03.
The communities of Kingsville, Leamington, Essex are equipped with elevated tanks. Other than the reservoirs on-site at the Union treatment plant, there is also a reservoir/booster station in the village of Cottam which serves the Town of Essex.

Site (Name): Union AWSS Low Lift Building
Type: Source **Sub Type:** Surface Water
Comments:
The treatment facility in Ruthven, receives water from Lake Erie via a low lift pumping station. Seven low lifts pumps can draw water through two intake pipes and another emergency intake channel if needed. The low lift station is equipped with a zebra mussel control system consisting of two sodium hypochlorite chemical feed pumps to pre-chlorination lines retrofitted through both the #1 and 2 intake, extending to a diffuser within each intake crib. The low lift pumping station consists of a two cell interconnected pump-well, equipped with manually removed bar screens and automatic travelling screens. Low lift pump well #1 houses five low lift pumps and low lift pump well #2 houses the remaining two pumps. The low-lift also houses two surge tanks for pump pressure surges.
Raw water flows through 24 inch and 36 inch raw transmission mains to the treatment plant approximately one kilometre inland.

Site (Name): Union AWSS WTP
Type: Treated Water POE **Sub Type:** Treatment Facility
Comments:
The Union WSS treatment plant is currently rated at 124,588 m3/d approved capacity. It is a conventional water treatment plant consisting of contact clarification via four solids upflow clarifiers after coagulant, coagulant aid (polymer) and activated carbon addition. Clarified water flows into eight dual media-type filters (sand and anthracite). Filter aid can be dosed on a contingency basis. The filters are equipped with backwash facilities via two backwash pumps. Sedimentation sludge and backwash from the filters is directed to a residue management pump station and is transferred to two settling/storage ponds. Supernatant overflow from the ponds is discharged into a storm sewer which discharges to Lake Erie.
Primary disinfection is provided via chlorine gas solution injection into the clarified effluent water (pre) and filtered effluent water (post) locations. Chlorine contact is achieved in two on-site reservoirs, operated in series. Interconnecting piping and valves allow taking individual reservoirs out of service. Beginning on June 4, 2018, the UWSS initiated a routine shutdown of their chloramination system for maintenance purposes. On December 23, 2019, UWSS notified the MECP that based on their Consultant's monitoring report, the Union Water Supply System Joint Board of Management had decided to permanently switch to free chlorine for secondary disinfection. The high-lift pump station consists of two wells. High-lift pump well #1 houses six high lift pumps and high-lift pump well #2 houses two pumps. There is also an emergency diesel-drive for one of the high-lift pumps. The high-lift also houses two surge tanks for pump pressure surges.

INSPECTION SUMMARY:

Introduction

- **The primary focus of this inspection is to confirm compliance with Ministry of the Environment, Conservation and Parks (MECP) legislation as well as evaluating conformance with ministry drinking water related policies and guidelines during the inspection period. The ministry utilizes a comprehensive, multibarrier approach in the inspection of water systems that focuses on the source, treatment and distribution components as well as management practices.**

  This drinking water system is subject to the legislative requirements of the Safe Drinking Water Act, 2002 (SDWA) and regulations made therein, including Ontario Regulation 170/03, "Drinking Water Systems" (O.Reg. 170/03). This inspection has been conducted pursuant to Section 81 of the SDWA.

  This report is based on a "focused" inspection of the system and was conducted remotely. Although the inspection involved fewer activities than those normally undertaken in a detailed inspection, it contained critical elements required to assess key compliance issues. This system was chosen for a focused inspection because the system's performance met the ministry's criteria, most importantly that there were no deficiencies as identified in O.Reg. 172/03 over the past 3 years. The undertaking of a focused inspection at this drinking water system does not ensure that a similar type of inspection will be conducted at any point in the future.

  This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

  The Union Area Water Supply System (UAWSS) is located in Ruthven, Ontario and the treatment facility receives water from Lake Erie.
  The drinking water system is owned by, and supplies water to, the municipalities of Kingsville, Leamington, Essex and Lakeshore via the Union Water System Joint Board of Management. Each of these respective municipalities forms part of the board, but each also owns and operates a separate standalone distribution system receiving water from the UAWSS. The drinking water system's total serviced population is approximately 66,600. The Union Area Water Supply System is considered a "large municipal residential system" under O. Regulation 170/03.
  This inspection was conducted remotely and the inspection review period was January 1, 2020 to December 31, 2020.

Source

- **The owner had a harmful algal bloom monitoring plan in place.**

  The Union Area Water Supply System's Harmful Algal Bloom monitoring, sampling and reporting plan is detailed in the Standard Operating Procedure (SOP) #OCWA-C6-15.
  From June 3 to October 31, 2020, raw and treated water samples were collected weekly (typically 2 - 3 times) and tested for microcystins. All of the microcystin results were reported as below the Method Detection Limit (0.1 or 0.3 ug/L) with the exception of one raw sample collected on August 29, 2020 which had a concentration of 0.1 ug/L.

- **The owner did have a harmful algal bloom monitoring plan in place that met the requirements of the Municipal Drinking Water Licence condition.**

  Condition 6.1 under Schedule C of the Union Area Water Supply System's Licence (#041-101) notes that the owner shall develop and keep up to date a Harmful Algal Bloom monitoring, reporting and sampling plan.
  As previously noted, a Harmful Algal Bloom monitoring, reporting and sampling plan is detailed in SOP#OCWA-C6-15.

Source

Capacity Assessment

- **There was sufficient monitoring of flow as required by the Municipal Drinking Water Licence or Drinking Water Works Permit issued under Part V of the SDWA.**

  Schedule C, Condition 2.1 of the Municipal Drinking Water Licence #041-101 requires that continuous flow measurement and recording shall be undertaken for:
  2.1.1 The flow rate (L/s) and daily volume (m3/day) of treated water that flows from the treatment subsystem to the distribution system.
  2.1.2 The flow rate (L/s) and daily volume (m3/day) of water that flows into the treatment subsystem.
  The Union Area Water Supply System has flow meters for both the raw water entering the treatment plant and for treated water flowing from the plant to the distribution system.

- **The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the Municipal Drinking Water Licence issued under Part V of the SDWA.**

  Schedule C, Condition 1.1 of the Municipal Drinking Water Licence #041-101 states that the maximum daily volume of treated water that flows from the Union Area Water Supply System shall not exceed 124,588 m3/day.
  During the inspection review period (January 1 to December 31, 2020) the Union Area Water Supply System did not exceed the maximum rated capacity. Based on records, the average daily volume of treated water conveyed to the distribution system was approximately 51,720 m3/day. This is approximately 42% of the rated capacity of the drinking water system. A maximum daily volume of treated water conveyed to the distribution system was 97,115 m3/day (78% of the rated capacity) which occurred in July 2020.

Treatment Processes

- **The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.**

- **The owner/operating authority was in compliance with the requirement to prepare Form 2 documents as required by their Drinking Water Works Permit during the inspection period.**

- **Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a Drinking Water Works Permit and/or Municipal Drinking Water Licence issued under Part V of the SDWA at all times that water was being supplied to consumers.**

- **Records confirmed that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated so that at all times and all locations in the distribution system the chlorine residual was never less than 0.05 mg/l free or 0.25 mg/l combined.**

- **Where an activity has occurred that could introduce contamination, all parts of the drinking water system were disinfected in accordance with Schedule B, Condition 2.3 of the Drinking Water Works Permit.**

  The system's representative was made aware that the updated Ontario Watermain Disinfection Procedure was issued on August 1, 2020. The representative was advised that the municipality is required to modify its watermain repair/commissioning procedures and forms to meet the updated procedure's documentation requirements by the date required in its DWWP.

Treatment Process Monitoring

- **Primary disinfection chlorine monitoring was conducted at a location approved by Municipal Drinking**

Treatment Process Monitoring

Water Licence and/or Drinking Water Works Permit issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved.

Primary disinfection chlorine monitoring is conducted at the outlet of Reservoir #2 (chlorine monitor CRA-7) and this is at/near a location where the intended CT has just been achieved.

- **Continuous monitoring of each filter effluent line was being performed for turbidity.**

- **Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.**

- **All continuous monitoring equipment utilized for sampling and testing required by O. Reg.170/03, or Municipal Drinking Water Licence or Drinking Water Works Permit or order, were equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6.**

  Free chlorine is measured on the reservoir's outlet (CRA-7) for monitoring primary disinfection CT. Chlorine alarm setpoints for CRA-7 are currently LoLo: 1.00ppm, Lo: 1.15ppm, Hi: 1.75ppm and HiHi: 1.85ppm.
  Each filter effluent line is equipped for continuous measurement of turbidity. Filter turbidity alarm setpoints are Hi: 0.16 NTU and HiHi: 0.20 NTU. At 0.20 NTU, the filter is automatically directed to waste; however, this setting is operator modifiable between 0-0.9 NTU (i.e. to keep a filter online).

- **Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format.**

  O. Reg. 170/03, s 6-5 requires the continuous monitoring equipment to record the date, time, sampling location and result of every test for the parameter with at least the minimum frequency prescribed as follows:
  1. Free chlorine residual required to achieve primary disinfection: 5 minutes
  2. Filter effluent turbidity: 15 minutes.
  Monitoring of free chlorine residual at CRA-7 and turbidity at each filter effluent was typically occurring at 2 minute intervals.

- **All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.**

Operations Manuals

- **The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.**

- **The operations and maintenance manuals met the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.**

  Condition 16.2 under Schedule B of the Union Area Water Supply System's Licence (#041-101) notes that the operations and maintenance manuals shall include (at a minimum) the following:
  16.2.1 The requirements of this licence and associated procedures;
  16.2.2 The requirements of the drinking water works permit for the drinking water system;
  16.2.3 A description of the processes used to achieve primary and secondary disinfection within the drinking water system including where applicable:
  a) A copy of the CT calculations that were used as the basis for primary disinfection under worst case operating conditions and other operating conditions, if applicable; and
  b) The validated operating conditions for UV disinfection equipment, including a copy of the validation certificate;
  16.2.4 Procedures for monitoring and recording the in-process parameters necessary for the control of any

Operations Manuals

treatment subsystem and for assessing the performance of the drinking water system;
16.2.5 Procedures for the operation and maintenance of monitoring equipment;
16.2.6 Contingency plans and procedures for the provision of adequate equipment and material to deal with emergencies, upset conditions and equipment breakdown;
16.2.7 Procedures for dealing with complaints related to the drinking water system, including the recording of the nature of the complaint and any investigation and corrective action taken in respect of the complaint;
A review of the Union Area Water Supply System's Operation Manual suggests that these conditions appear to be satisfied.

Logbooks

- **Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5.**

Security

- **The owner had provided security measures to protect components of the drinking water system.**

Certification and Training

- **The overall responsible operator had been designated for each subsystem.**
- **Operators-in-charge had been designated for all subsystems which comprised the drinking water system.**
- **All operators possessed the required certification.**
- **Only certified operators made adjustments to the treatment equipment.**

Water Quality Monitoring

- **All microbiological water quality monitoring requirements for treated samples were being met.**

  As per O.Reg. 170/03 s10-3, the owner/operating authority for the system shall ensure that a water sample (treated) is taken at least once every week and tested for E. coli, total coliforms and general bacteria population expressed as colony counts on a heterotrophic plate count (HPC).
  During the inspection review period (January 1 to December 31, 2020) all microbiological water monitoring requirements for treated water samples were performed.

- **All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**

  As per O.Reg. 170/03 s13-2, the owner/operating authority of a large municipal residential system that obtains water from a raw water supply that is surface water shall ensure that at least one water sample is taken every 12 months and tested for every inorganic parameter set out in Schedule 23.
  During the inspection review period (January 1 to December 31, 2020) this sample was collected on January 7, 2020.

- **All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**

  As per O.Reg. 170/03 s13-4, the owner/operating authority of a large municipal residential system that obtains

Water Quality Monitoring

water from a raw water supply that is surface water shall ensure that at least one water sample is taken every 12 months and tested for every organic parameter set out in Schedule 24.
During the inspection review period (January 1 to December 31, 2020) this sample was collected on January 7, 2020.

- **All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency for the DWS.**

  As per O.Reg. 170/03 s13-7, the owner/operating authority of a system shall ensure that at least one water sample is taken every three months and have the sample tested for nitrate and nitrite.
  During the inspection review period (January 1 to December 31, 2020) these samples were collected on January 6, April 6, July 7 and October 5, 2020.

- **All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**

  As per O.Reg. 170/03 s13-8, the owner/operating authority of a drinking water system shall ensure that at least one water sample is taken every 60 months (+/- 90 days) and tested for sodium.
  The operating authority is sampling and testing for sodium annually, which exceeds the testing requirements prescribed by O.Reg. 170/03. During the inspection review period (January 1 to December 31, 2020) a sodium test was performed on January 7, 2020 (7.83 mg/L) and no concerns were identified.

- **All fluoride water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**

  As per O.Reg. 170/03 s13-9, the owner/operating authority of a drinking water system shall ensure that at least one water sample is taken every 60 months (+/- 90 days) and tested for fluoride.
  The operating authority is sampling and testing for fluoride annually, which exceeds the testing requirements prescribed by O.Reg. 170/03. During the inspection review period (January 1 to December 31, 2020) a fluoride test was performed on January 7, 2020 (0.09 mg/L) and no concerns were identified.

- **All water quality monitoring requirements imposed by the MDWL or DWWP issued under Part V of the SDWA were being met.**

  Additional environmental discharge sampling parameters, locations and frequencies are noted in Table 7, Schedule C of the Municipal Drinking Water Licence #041-101. These additional parameters are total suspended solids (monthly composite), filtered and unfiltered aluminum (monthly grab) and total chlorine residual (monthly grab).
  During the inspection review period (Jan.1 - Dec. 31, 2020), TSS composite samples were collected monthly from the north and/or south waste management settling ponds. The TSS results ranged from <3 to 6 mg/L and the average being 3.4 mg/L which is well below the annual average limit of 25 mg/L (noted in Table 3, Schedule C of the Licence).
  Filtered and unfiltered aluminum grab samples were collected from various lagoon sludge pile runoffs (SP#1, SP#2, SP#3 and SP#4) during the inspection review period. Due to the lack of runoff, no aluminum samples were collected/tested from April to September 2020 and November and December 2020. The total (unfiltered) aluminum results ranged from 0.06 to 1.85 mg/L and the dissolved (filtered) results ranged from <0.001 to 0.263 mg/L. There are no limits noted for aluminum in Table 3, Schedule C of the Licence.
  Also during the inspection review period, grab samples were collected weekly from the north and/or south lagoon effluents and tested for total chlorine residual. The total chlorine residuals ranged from 0.02 to 0.25 mg/L with an average being 0.10 mg/L which exceeds the annual average concentration of 0.02 mg/L (noted in Table 3, Schedule C of the Licence). The ministry was notified of this non-compliance via letter on January 15, 2021. It was noted in this letter that a Pocket Colorimeter 2 test kit is being used to test the residuals and that test results below 0.02 mg/l may not be read properly and may be interfered by other factors and parameters. It was also noted that the operating authority is currently working on finding a more accurate way of testing for total chlorine residuals and that the owner/operating authority are also looking into treatment process options to alleviate the non-compliance issue.

Water Quality Monitoring

- **Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.**

Water Quality Assessment

- **Records showed that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O.Reg. 169/03).**

Reporting & Corrective Actions

- **Corrective actions (as per Schedule 17) had been taken to address adverse conditions, including any other steps that were directed by the Medical Officer of Health.**

  On April 2, 2020, the ministry was notified of a 1 count of clostridium perfringens in a filter effluent sample (Incident # 1-NQCZ5). Correction action performed by the operating authority included optimizing the coagulation and filtration process and then resampling. The resample results were all non-detect for clostridium perfringens.

- **All required notifications of adverse water quality incidents were immediately provided as per O. Reg. 170/03 16-6.**

- **Where required continuous monitoring equipment used for the monitoring of chlorine residual and/or turbidity triggered an alarm or an automatic shut-off, a qualified person responded in a timely manner and took appropriate actions.**

NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

Not Applicable

SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES

This section provides a summary of all recommendations and best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following issues and consider measures to address them.

Not Applicable

SIGNATURES

Inspected By:

Neil Gilbert

Signature: (Provincial Officer)

Reviewed & Approved By:

Marc Bechard

Signature: (Supervisor)

Review & Approval Date:

Note: This inspection does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.

Stakeholder Appendix

Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

Many useful materials are available to help you operate your drinking water system. Below is a list of key materials owners and operators of municipal residential drinking water systems frequently use.

To access these materials online click on their titles in the table below or use your web browser to search for their titles. Contact the Ministry if you need assistance or have questions at 1-866-793-2588 or waterforms@ontario.ca.

For more information on Ontario's drinking water visit www.ontario.ca/drinkingwater

PUBLICATION TITLE	PUBLICATION NUMBER
FORMS: Drinking Water System Profile Information Laboratory Services Notification Adverse Test Result Notification	 012-2149E 012-2148E 012-4444E
Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils	Website
Procedure for Disinfection of Drinking Water in Ontario	Website
Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids	Website
Filtration Processes Technical Bulletin	Website
Ultraviolet Disinfection Technical Bulletin	Website
Guide for Applying for Drinking Water Works Permit Amendments, & License Amendments	Website
Certification Guide for Operators and Water Quality Analysts	Website
Guide to Drinking Water Operator Training Requirements	9802E
Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption	Website
Drinking Water System Contact List	7128E01
Ontario's Drinking Water Quality Management Standard - Pocket Guide	Website
Watermain Disinfection Procedure	Website
List of Licensed Laboratories	Website

Principaux guides et documents de référence sur les réseaux résidentiels municipaux d'eau potable

De nombreux documents utiles peuvent vous aider à exploiter votre réseau d'eau potable. Vous trouverez ci-après une liste de documents que les propriétaires et exploitants de réseaux résidentiels municipaux d'eau potable utilisent fréquemment. Pour accéder à ces documents en ligne, cliquez sur leur titre dans le tableau ci-dessous ou faites une recherche à l'aide de votre navigateur Web. Communiquez avec le ministère au 1-866-793-2588, ou encore à waterforms@ontario.ca si vous avez des questions ou besoin d'aide.

Pour plus de renseignements sur l'eau potable en Ontario, consultez le site www.ontario.ca/eaupotable

TITRE DE LA PUBLICATION	NUMÉRO DE PUBLICATION
Renseignements sur le profil du réseau d'eau potable Avis de demande de services de laboratoire Avis de résultats d'analyse insatisfaisants et de règlement des problèmes	012-2149F 012-2148F 012-4444F
Prendre soin de votre eau potable - Un guide destiné aux membres des conseils municipaux	Site Web
Marche à suivre pour désinfecter l'eau portable en Ontario	Site Web
Stratégies pour minimiser les trihalométhanes et les acides haloacétiques de sous-produits de désinfection	Site Web
Filtration Processes Technical Bulletin (en anglais seulement)	Site Web
Ultraviolet Disinfection Technical Bulletin (en anglais seulement)	Site Web
Guide de présentation d'une demande de modification du permis d'aménagement de station de production d'eau potable	Site Web
Guide sur l'accréditation des exploitants de réseaux d'eau potable et des analystes de la qualité de l'eau de réseaux d'eau potable	Site Web
Guide sur les exigences relatives à la formation des exploitants de réseaux d'eau potable	9802F
Échantillonnage et analyse du plomb dans les collectivités : échantillonnage normalisé ou réduit et admissibilité à l'exemption	Site Web
Liste des personnes-ressources du réseau d'eau potable	Site Web
L'eau potable en Ontario - Norme de gestion de la qualité - Guide de poche	Site Web
Procédure de désinfection des conduites principales	Site Web
Laboratoires autorisés	Site Web

Inspection Rating Record

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2020-2021)

DWS Name:	UNION AREA WATER SUPPLY SYSTEM
DWS Number:	210000853
DWS Owner:	Union Water System Joint Board Of Management (Leamington, Kingsville, Essex, Lakeshore)
Municipal Location:	Kingsville
Regulation:	O.REG 170/03
Category:	Large Municipal Residential System
Type Of Inspection:	Focused
Inspection Date:	January 28, 2021
Ministry Office:	Windsor Area Office

Maximum Question Rating: 448

Inspection Module	Non-Compliance Rating
Source	0 / 0
Capacity Assessment	0 / 30
Treatment Processes	0 / 81
Operations Manuals	0 / 28
Logbooks	0 / 14
Certification and Training	0 / 42
Water Quality Monitoring	0 / 75
Reporting & Corrective Actions	0 / 66
Treatment Process Monitoring	0 / 112
TOTAL	**0 / 448**

Inspection Risk Rating	**0.00%**

FINAL INSPECTION RATING:	**100.00%**

Inspection Rating Record Generated On 10-FEB-21 (Inspection ID: 1-O088M).

Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2020-2021)

DWS Name:	UNION AREA WATER SUPPLY SYSTEM
DWS Number:	210000853
DWS Owner:	Union Water System Joint Board Of Management (Leamington, Kingsville, Essex, Lakeshore)
Municipal Location:	Kingsville
Regulation:	O.REG 170/03
Category:	Large Municipal Residential System
Type Of Inspection:	Focused
Inspection Date:	January 28, 2021
Ministry Office:	Windsor Area Office

Maximum Question Rating: 448

Inspection Risk Rating	**0.00%**
FINAL INSPECTION RATING:	**100.00%**

Inspection Rating Record Generated On 10-FEB-21 (Inspection ID: 1-O088M).

UW/12/21

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

From: Rodney Bouchard, Union Water Manager

Date: February 10, 2021

Re: 2020 Annual Report under the Safe Drinking Water Act and Ontario Regulation 170/03

Aim

To present to the Board the Annual Report for 2020 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 be provided to each of the four participating municipalities therefore satisfying the requirement that it must be received before February 28, 2021.

There were no instances in 2020 when the Union Water Supply System was out of compliance with the requirements of the Safe Drinking Water Act 2002.

Recommendation:

That the Board receive the Annual Report for 2020 prepared under Section 11 of Regulation 170/03 made under the Safe Drinking Water Act 2002.

Respectfully submitted,

Rodney Bouchard, Manager
Union Water Supply System Joint Board of Management
Rb/kmj
Filename: t:\union wtr\reports to board\2021\uw12-21 annual report for 2020 (board report).docx

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

UNION WATER SUPPLY SYSTEM

Annual Performance Report

Union Area Water Supply System

Drinking Water System # 210000853

2020

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
Sam Wen
Process & Compliance Technician
swen@ocwa.com
519-326-4447

Ontario

Drinking Water Systems Regulation O. Reg. 170/03

ANNUAL REPORT

Drinking Water System Number:	**210000853**
Drinking Water System Name:	**Union Water Supply System**
Drinking Water System Owner:	**Union Water Supply System Joint Board of Management (Municipality of Leamington, Town of Kingsville, Town of Essex, Town of Lakeshore)**
Drinking Water System Category:	**Large Municipal Residential**
Period being reported:	**01-January-2020 to 31-December-2020**

Complete if your Category is Large Municipal Residential or Small Municipal Residential	***Complete for all other Categories***
Does your Drinking Water System serve more than 10,000 people? Yes [X] No [ ] **Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [ ]** **Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.** **Union Water Supply System P.O. Box 340, 1615 Union Ave., Ruthven, Ont. N0P 2G0**	**Number of Designated Facilities served:** **N/A** **Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]** **Number of Interested Authorities you report to:** **N/A** **Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]**

***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 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 drinking water? Yes [X] No [ ]

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

[X] Public access/notice via the web
[ ] Public access/notice via Government Office
[ ] Public access/notice via a newspaper
[X] Public access/notice via Public Request
[ ] Public access/notice via a Public Library
[X] Public access/notice via other method_____

Describe your Drinking Water System

The Union Water Supply System (UWSS) includes one water treatment plant, the Ruthven Water Treatment Plant (RWTP) that is located in the hamlet of Ruthven in the Town of Kingsville, Ontario. The RWTP is a chemically assisted conventional filtration plant that draws water from Lake Erie.

The UWSS 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 66,600.

The treatment process includes raw water pH control, chemically assisted up-flow clarification, filtration with dual media filters, primary disinfection using Chlorine gas and secondary disinfection using Chlorine gas and Sodium Hypochlorite.

Seasonally, the RWTP 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:
- **DelPac 2020 – Coagulant**
- **DelPac XG-15 - Coagulant**
- **Magnafloc LT22S (polymer) - Coagulant Aid**
- **Powdered Activated Carbon – Taste and Odor Control**
- **CO2 – PH adjustment**

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

Disinfection:
- **Primary: Chlorine Gas**
- **Secondary: Chlorine Gas and Sodium Hypochlorite**

Were any significant expenses incurred to?
[X] Install required equipment
[X] Repair required equipment

[X] Replace required equipment

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

	Item Description	Expenditures to 2020 Year End
	Capital Works and Major Maintenance	
1	SCADA System Upgrades	$554,317
2	Raw Water pH Adjustment System	$186,300
3	Distribution Pressure/Temperature Monitoring System	$170,299
4	Chlorine Gas System Upgrades	$110,060
5	DAF System for Clarifier #2	$138,378
6	Residuals Management	$136,031
7	New Security and Access Control System	$108,100
8	Kingsville Water Tower Rehabilitation	$84,808
9	Treatment Plant Building and Grounds Improvements	$52,900
10	Low Lift Electrical Upgrades	$52,754
11	Clarifier #1 Raw Water Pipe–New Flow Meter, Valve & Rotork	$26,320
12	Clarifier #2 Raw Water Pipe – New Flow Meter	$18,113
13	New Laboratory	$15,400
14	High Lift #9 Soft Start	$9,677
15	Meter Pit #13 Flow Meter	$8,170
16	Spare Actuator for Filters #5-8	$5,410
17	Spare Powdered Activated Carbon Feed Pump	$5,020
18	Clarifier #1 Blow off Valve	$4,724
	Total Capital Works/Major Maintenance:	$1,686,781

	New Capital Works in 2021	
1	DAF System for Clarifier #2	$4,500,000
2	Kingsville Water Tower Rehabilitation	$1,650,000
3	Filter #2 Rehabilitation	$360,000
4	Filter #4 Rehabilitation	$360,000
5	Low Lift Electrical Upgrades	$200,000
6	High Lift #7 Pump - New	$175,000
7	Grounds Improvements	$170,000
8	PLC Upgrades (Low Lift, Cottam Booster, Generator B)	$150,000
9	New Utility Building – Kingsville Water Tower	$150,000
10	Distribution System Upgrades – Valves, Monitoring, etc.	$150,000

11	Former Ammonia Building Retrofit to Maintenance Shop	$125,000
12	Low Lift Roof Replacement	$75,000
13	Cottam Booster Mixing System	$75,000
14	New Laboratory Construction	$75,000
15	Electrical Upgrades – New Capacitors, etc.	$70,000
16	Filter Aid System Upgrades	$60,000
17	Wastewater System – New Backup Pump	$50,000
18	Billing Meters Upgrades	$50,000
19	Essex Water Tower New Cathodic Protection System	$40,000
20	Low Lift Pump #3 Rehabilitation	$35,000
21	Communication System Upgrades	$35,000
22	Treatment Plant Admin Area Improvements	$30,000
23	Clearwell #1 Inlet Rotork	$20,000
24	New Fencing–Treatment Plant and Leamington Water Tower	$20,000
	Total Approve New Capital Works for 2021:	$8,625,000

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	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
July 21, 2020	**TC**	**count 5**	**cfu/100ml**	**Flushing affected area and resampling. BWA was issued on July 21, 2020.**	**July 24, 2020**

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period

	Number of Samples	Range of E. Coli Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	**52**	**1 - 54**	**2-2000**	**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 done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results	Unit of Measure

Ontario

Drinking Water Systems Regulation O. Reg. 170/03

		(min #)-(max #)	
Turbidity	**8760**	**0.00- 1.998**	**NTU**
Chlorine - Free	**8760**	**0.975-1.698**	**Mg/L**

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

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	Date Sampled	Result	Unit of Measure
July 18, 2019	Suspended Solids	Jan 06/20	3	mg/L
	Suspended Solids	Feb 03/20	3	mg/L
	Suspended Solids	Mar 02/20	3	mg/L
	Suspended Solids	April 06/20	3	mg/L
	Suspended Solids	May 04/20	3	mg/L
	Suspended Solids	June 01/20	3	mg/L
	Suspended Solids	July 06/20	4	mg/L
	Suspended Solids	Aug 04/20	4	mg/L
	Suspended Solids	Sept 08/20	4	mg/L
	Suspended Solids	Oct 05/20	4.5	mg/L
	Suspended Solids	Nov 02/20	3	mg/L
	Suspended Solids	Dec07 /20	3	mg/L

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
July 18, 2019	Total Chlorine residuals	Jan 03/20	0.13	mg/L
	Total Chlorine residuals	Feb 03/20	0.08	mg/L
	Total Chlorine residuals	Mar 02/20	0.06	mg/L
	Total Chlorine residuals	April 06/20	0.09	mg/L
	Total Chlorine residuals	May 05/20	0.12	mg/L
	Total Chlorine residuals	June 01/20	0.14	mg/L
	Total Chlorine residuals	July 06/20	0.06	mg/L
	Total Chlorine residuals	Aug 04/20	0.09	mg/L
	Total Chlorine residuals	Sept 09/20	0.19	mg/L
	Total Chlorine residuals	Oct 06/20	0.12	mg/L
	Total Chlorine residuals	Nov 02/20	0.02	mg/L
	Total Chlorine residuals	Dec10 /20	0.04	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	2020/01/07	0.13	Ug/L	No
Arsenic	2020/01/07	0.2	Ug/L	No
Barium	2020/01/07	16.3	Ug/L	No
Boron	2020/01/07	16.0	Ug/L	No
Cadmium	2020/01/07	0.01	Ug/L	No

Ontario

Drinking Water Systems Regulation O. Reg. 170/03

Chromium	**2020/01/07**	**0.19**	**Ug/L**	**No**
***Lead**	**N/A**	**N/A**	**N/A**	**N/A**
Mercury	**2020/01/07**	**0.01<MDL**	**Ug/L**	**No**
Selenium	**2020/01/07**	**0.07**	**Ug/L**	**No**
Sodium	**2020/01/07**	**7.83**	**Mg/L**	**No**
Uranium	**2020/01/07**	**0.166**	**Ug/L**	**No**
Fluoride	**2020/01/07**	**0.09**	**Mg/L**	**No**
Nitrite	**N/A**	**N/A**	**N/A**	**N/A**
Nitrate	**N/A**	**N/A**	**N/A**	**N/A**

***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**

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Nitrite (N)	**06-Jan-2020**	**<0.1**	**mg/L**	**No**
Nitrate (N)		**0.4**	**mg/L**	**No**
Ammonia N-Total		**0.04**	**mg/L**	**No**
Nitrite (N)	**06-Apr-2020**	**<0.1**	**mg/L**	**No**
Nitrate (N)		**0.6**	**mg/L**	**No**
Ammonia N-Total		**0.03**	**mg/L**	**No**
Nitrite (N)	**07-July-2020**	**< 0.1**	**mg/L**	**No**
Nitrate (N)		**0.4**	**mg/L**	**No**
Ammonia N-Total		**0.03**	**mg/L**	**No**
Nitrite (N)	**05-Oct-2020**	**<0.1**	**mg/L**	**No**
Nitrate (N)		**0.2**	**mg/L**	**No**
Ammonia N-Total		**0.03**	**mg/L**	**No**

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

Ontario

Drinking Water Systems Regulation O. Reg. 170/03

Parameter	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	Exceedance
Alachlor (ug/L)	2020/01/07	<MDL 0.02	Ug/L	No
Atrazine + N-dealkylated metabolites (ug/L)	2020/01/07	<MDL 0.01	Ug/L	No
Azinphos-methyl (ug/L)	2020/01/07	<MDL 0.05	Ug/L	No
Benzene (ug/L)	2020/01/07	<MDL 0.32	Ug/L	No
Benzo(a)pyrene (ug/L)	2020/01/07	<MDL 0.004	Ug/L	No
Bromoxynil (ug/L)	2020/01/07	<MDL 0.33	Ug/L	No
Carbaryl (ug/L)	2020/01/07	<MDL 0.05	Ug/L	No
Carbofuran (ug/L)	2020/01/07	<MDL 0.01	Ug/L	No
Carbon Tetrachloride (ug/L)	2020/01/07	<MDL 0.17	Ug/L	No
Chlorpyrifos (ug/L)	2020/01/07	<MDL 0.02	Ug/L	No
Diazinon (ug/L)	2020/01/07	<MDL 0.02	Ug/L	No
Dicamba (ug/L)	2020/01/07	<MDL 0.2	Ug/L	No
1,2-Dichlorobenzene (ug/L)	2020/01/07	<MDL 0.41	Ug/L	No
1,4-Dichlorobenzene (ug/L)	2020/01/07	<MDL 0.36	Ug/L	No
1,2-Dichloroethane (ug/L)	2020/01/07	<MDL 0.35	Ug/L	No
1,1-Dichloroethylene (ug/L)	2020/01/07	<MDL 0.33	Ug/L	No
Dichloromethane (Methylene Chloride) (ug/L)	2020/01/07	<MDL 0.35	Ug/L	No
2,4-Dichlorophenol (ug/L)	2020/01/07	<MDL 0.15	Ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)	2020/01/07	<MDL 0.19	Ug/L	No
Diclofop-methyl (ug/L)	2020/01/07	<MDL 0.4	Ug/L	No
Dimethoate (ug/L)	2020/01/07	<MDL 0.06	Ug/L	No
Diquat (ug/L)	2020/01/07	<MDL 1.0	Ug/L	No
Diuron (ug/L)	2020/01/07	<MDL 0.03	Ug/L	No
Glyphosate (ug/L)	2020/01/07	<MDL 1.0	Ug/L	No
HAAs (*Note*: show latest running annual average)		7.55	Mg/L	No
Malathion (ug/L)	2020/01/07	<MDL 0.02	Ug/L	No
Metolachlor (ug/L)	2020/01/07	<MDL 0.01	Ug/L	No
Metribuzin (ug/L)	2020/01/07	<MDL 0.02	Ug/L	No
Monochlorobenzene (Chlorobenzene) (ug/L)	2020/01/07	<MDL 0.3	Ug/L	No
Paraquat (ug/L)	2020/01/07	<MDL 1.0	Ug/L	No
PCB (ug/L) - TW	2020/01/07	<MDL 0.04	Ug/L	No
Pentachlorophenol (ug/L)	2020/01/07	<MDL 0.15	Ug/L	No
Phorate (ug/L)	2020/01/07	<MDL 0.01	Ug/L	No
Picloram (ug/L)	2020/01/07	<MDL 1.0	Ug/L	No
Prometryne (ug/L)	2020/01/07	<MDL 0.03	Ug/L	No
Simazine (ug/L)	2020/01/07	<MDL 0.01	Ug/L	No
Terbufos (ug/L)	2020/01/07	<MDL 0.01	Ug/L	No

Ontario

Drinking Water Systems Regulation O. Reg. 170/03

Tetrachloroethylene (ug/L)	**2020/01/07**	**<MDL 0.35**	**Ug/L**	**No**
2,3,4,6-Tetrachlorophenol (ug/L)	**2020/01/07**	**<MDL 0.2**	**Ug/L**	**No**
THMs (*Note:* show latest running annual average)		**18.42**	**Mg/L**	**No**
Triallate (ug/L)	**2020/01/07**	**<MDL 0.01**	**Ug/L**	**No**
Trichloroethylene (ug/L)	**2020/01/07**	**<MDL 0.44**	**Ug/L**	**No**
2,4,6-Trichlorophenol (ug/L)	**2020/01/07**	**<MDL 0.25**	**Ug/L**	**No**
Trifluralin (ug/L)	**2020/01/07**	**<MDL 0.02**	**Ug/L**	**No**
Vinyl Chloride (ug/L)	**2020/01/07**	**<MDL 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/13/21

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

From: Rodney Bouchard, Union Water Manager

Date: February 10, 2021

Re: 2020 Summary Report for Municipalities under Regulation 170/03 made under the Safe Drinking Water Act

---

Aim:

To provide to the Board a Summary Report for Municipalities for 2020 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 (3) 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

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 2020, except for the noted occurrences in the Summary Report.

Recommendation

That the Board receive the Summary Report for 2020 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, Manager
Union Water Supply System Joint Board of Management
rb/kmj
Filename: t:\union wtr\reports to board\2021\uw13-21 summary report for 2020 (board report).docx

UNION WATER SUPPLY SYSTEM
SUMMARY REPORT 2020

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 that is owned by a municipality, municipal board or municipal corporation must provide to its councillors or 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 is therefore subject to Schedule 22.

The Summary Report must list the following:

- Any requirements of the Safe Drinking Water Act, 2002 that the system failed to meet during the period covered by the Summary Report
- Any 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 2020.

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:

There were no non-compliances or Adverse Water Quality Incidents (AWQIs) identified for the portion of the Union Water common Distribution System that is supplied by Union Water Supply System.

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 #150851 on July 21, 2020 – sample taken at distribution station SS-L-14 with a TC count of 5. A BWA was issued on July 21, 2020. Staff flushed and resampled the affected area upstream and downstream on July 22, 2020 and 24 hours later. Those samples were returned clean.

Kingsville Water Distribution System

Non-Compliance Item:

There were no non-compliances or Adverse Water Quality Incidents (AWQIs) identified for the portion of the Kingsville Distribution System that is supplied by the Union Water Supply System.

Essex Water Distribution System

Non-Compliance Item:

There were no non-compliances or Adverse Water Quality Incidents (AWQIs) identified for the portion of theEssex Distribution System that is supplied by the Union Water Supply System.

Lakeshore Water Distribution System

Non-Compliance Item:

There were no non-compliances or Adverse Water Quality Incidents (AWQIs) identified for the portion of the Lakeshore Distribution System that is supplied by the 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 0816-9T9SVT, which expires at the end of 2025. 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 2020 (see Table 1 below) are as follows:

- Maximum Amount Taken per Minute in 2020 (Litres/Min) 88,304
- Maximum Amount Taken Per Day in 2020 (Litres/Day) 109,548,000

The system did not exceed the PTTW limits in 2020.

Drinking Water License

The UWSS operates under Municipal Drinking Water Licence 041-101; issue Number 7 which has been issued for the period July 18, 2020 to July 17, 2024. The Certificate of Approval and licence had the following condition:

- The drinking water system shall not be operated to exceed 124,588 m^3/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 97,115m^3 (21.37 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
2020 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	37,015	53,328	53,328,000	113,650	39,327
February	163,656	49,162	61,784	61,784,000	113,650	54,153
March	163,656	49,790	62,419	62,419,000	113,650	56,430
April	163,656	56,648	72,729	72,729,000	113,650	68,639
May	163,656	65,811	89,261	89,261,000	113,650	70,877
June	163,656	87,655	102,430	102,430,000	113,650	88,304
July	163,656	89,066	109,548	109,548,000	113,650	85,443
August	163,656	80,258	95,148	95,148,000	113,650	81,234
September	163,656	70,016	83,782	83,782,000	113,650	65,909
October	163,656	53,097	70,882	70,882,000	113,650	57,231
November	163,656	45,276	55,625	55,625,000	113,650	44,825
December	163,656	39,059	50,225	50,225,000	113,650	38,658

Table 1B
2020 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	8.14	11.73	25,000	8,651
February	36.00	10.81	13.59	25,000	11,912
March	36.00	10.95	13.73	25,000	12,413
April	36.00	12.46	16.00	25,000	15,098
May	36.00	14.48	19.63	25,000	15,591
June	36.00	19.28	22.53	25,000	19,424
July	36.00	19.59	24.10	25,000	18,795
August	36.00	17.65	20.93	25,000	17,869
September	36.00	15.40	18.43	25,000	14,498
October	36.00	11.68	15.59	25,000	12,589
November	36.00	9.96	12.24	25,000	9,860
December	36.00	8.59	11.05	25,000	8,504

Table 2A
2020 Treated Water Flow Into Distribution System in Metric Units

	Maximum Allowed Flow Rate (m3/Day)	Average Daily Flow (m3/Day)	Maximum Daily Flow (m3/Day)	Peak Instantaneous Flow (Litres/ Second)
January	124,588	30,367	34,881	692
February	124,588	35,813	43,409	991
March	124,588	40,043	51,603	1,281
April	124,588	48,283	60,293	1,415
May	124,588	57,150	80,559	1,432
June	124,588	78,083	94,982	1,680
July	124,588	79,103	97,115	1,668
August	124,588	71,457	86,082	1,574
September	124,588	61,282	75,349	1,384
October	124,588	46,019	62,831	1,265
November	124,588	39,226	46,742	1,247
December	124,588	33,815	42,260	740

Table 2B
2020 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	6.68	7.67	152
February	27.4	7.88	9.55	218
March	27.4	8.81	11.35	282
April	27.4	10.62	13.26	311
May	27.4	12.57	17.72	315
June	27.4	17.18	20.90	370
July	27.4	17.40	21.37	367
August	27.4	15.72	18.94	346
September	27.4	13.48	16.58	304
October	27.4	10.12	13.82	278
November	27.4	8.63	10.28	274
December	27.4	7.44	9.30	163

Table 3A
2020 Treated Flow to Local Municipalities in Metric Units

	Leamington		*Kingsville*		*Essex*		*Lakeshore*	
	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	475,832	15,349	334,112	10,778	60,333	1,946	64,841	2,092
February	545,669	18,816	375,337	12,943	58,335	2,012	47,709	1,645
March	685,087	22,100	484,097	15,616	64,133	2,069	53,252	1,718
April	790,081	26,336	567,939	18,931	60,936	2,031	50,449	1,682
May	908,541	29,308	616,542	19,888	67,187	2,167	54,170	1,747
June	1,313,910	43,797	958,039	31,935	112,973	3,766	74,235	2,475
July	1,358,244	43,814	942,699	30,410	95,680	3,086	69,744	2,250
August	1,237,242	39,911	884,356	28,528	93,561	3,018	68,871	2,222
September	1,019,718	33,991	706,956	23,565	75,854	2,528	61,189	2,040
October	788,481	25,435	472,507	15,242	72,606	2,342	61,197	1,974
November	677,214	22,574	363,478	12,116	62,862	2,095	64,841	2,161
December	549,454	17,724	373,269	12,041	61,576	1,986	64,483	2,080
Total	**10,349,473**	**28,263**	**7,079,331**	**19,333**	**886,036**	**2,421**	**734,981**	**2,007**

Table 3A
2020 Treated Flow to Local Municipalities in Imperial Units

	Leamington		*Kingsville*		*Essex*		*Lakeshore*	
	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	104,668,407	3.38	73,494,365	2.37	13,271,405	0.43	14,263,026	0.46
February	120,030,400	4.14	82,562,598	2.85	12,831,906	0.44	10,494,513	0.36
March	150,698,072	4.86	106,486,453	3.44	14,107,288	0.46	11,713,802	0.38
April	173,793,524	5.79	124,929,115	4.16	13,404,046	0.45	11,097,229	0.37
May	199,851,081	6.45	135,620,280	4.37	14,779,074	0.48	11,915,734	0.38
June	289,019,795	9.63	210,739,119	7.02	24,850,586	0.83	16,329,417	0.54
July	298,771,912	9.64	207,364,790	6.69	21,046,658	0.68	15,341,535	0.49
August	272,155,193	8.78	194,531,125	6.28	20,580,543	0.66	15,149,502	0.49
September	224,306,602	7.48	155,508,580	5.18	16,685,547	0.56	13,459,698	0.45
October	173,441,573	5.59	103,937,010	3.35	15,971,087	0.52	13,461,458	0.43
November	148,966,255	4.97	79,953,982	2.67	13,827,707	0.46	14,263,026	0.48
December	120,862,983	3.90	82,107,701	2.65	13,544,826	0.44	14,184,277	0.46
Total	**2,276,565,796**	**6.22**	**1,557,235,119**	**4.25**	**194,900,673**	**0.53**	**161,673,218**	**0.44**

UW/14/21

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

From: Rodney Bouchard, Union Water Manager

Date: February 12, 2021

Re: Payments for the UWSS from January 16th to February 11, 2021

Aim:

To provide the Board with a copy of payments made by the Union Water Supply System from January 16th to February 11, 2021.

Recommendation:

For information purposes.

Respectfully submitted,

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

Filename: t:\union wtr\reports to board\2021\uw14-21 payments from jan to feb 2021.docx

Vendor : 001200 To PT00000033
Batch : All
Department : 0700 To 0700
Cheque Print Date : 16-Jan-2021 To 22-Jan-2021
Bank : 07 To 08
Class : All

Vendor / Invoice	Vendor Name / Description	CC1	CC2	CC3	GL Account Name	Batch	Invc Date	Invc Due Date	Amount
DEPARTMENT 0700	Union Water System								
999525	**HOME LOGIX AUDIO VIDEO**								
2258	MONITOR WALL					756	31-Dec-2020	31-Dec-2020	
70-7-0700-8780					SCADA System				18,445.80
180325	**RICOH CANADA INC**								
SCO93088069	USAGE NOV-DEC					756	31-Dec-2020	20-Jan-2021	
70-5-0700-7010		002070			Office Supplies				86.64
							Department Totals :		**18,532.44**

Vendor : 001200 To PT00000033 **EFT Paid Date :** 16-Jan-2021 **To** 22-Jan-2021
Batch : All **Bank :** 07 To 08
Department : 0700 To 0700 **Class :** All

Vendor Code / Invoice No. / G.L. Account	Vendor Name / Description	CC1	CC2	CC3	GL Account Name	Batch	Invc Date	Invc Due Date	Amount
DEPARTMENT 0700	Union Water System								
010103	**ASSOCIATED ENGINEERING (ONT) LTD**								
528732	SCADA UPGRADES-PROCESS NARRATIVE TO DEC31/20					757	31-Dec-2020	20-Jan-2021	
70-7-0700-8780					SCADA System				5,459.93
030004	**C3 WATER INC**								
202012-467	UNION-WINDSOR WATER SERVICING & REDUNDANCY STUDY					757	31-Dec-2020	20-Jan-2021	
70-5-0700-7989			002075		Operational Programs & Studies				1,405.41
050099	**ENBRIDGE GAS INC**								
1929770177678	1212.03M3 CBS 163 CTY RD 34E					757	31-Dec-2020	20-Jan-2021	
70-5-0700-7410			002073		Gas				402.88
080250	**HYDRO ONE NETWORKS INC**								
200141677460[	DEC/20 WTP					757	31-Dec-2020	20-Jan-2021	
70-5-0700-7420			002073		Electricity				53,417.41
200141680692[	DEC/20 HYDRO-LOW LIFT					757	31-Dec-2020	20-Jan-2021	
70-5-0700-7420			002073		Electricity				-26.93
70-5-0700-7420			002073		Electricity				25,649.68
200152134969[	DEC/20 HYDRO METER #17					757	31-Dec-2020	20-Jan-2021	
70-5-0700-7420			002073		Electricity				-13.87
70-5-0700-7420			002073		Electricity				47.20
200208899066J	JAN21 HYDRO - METER#16					33	15-Jan-2021	20-Jan-2021	
70-5-0700-7420			002073		Electricity				112.15
70-5-0700-7420			002073		Electricity				-30.43
150365	**ONTARIO CLEAN WATER AGENCY**								
INV6672	NOV OCWA CONTRACT					757	30-Nov-2020	20-Jan-2021	
70-5-0700-6720			002071		OCWA Operating Contract				276,874.61
INV7691	DEC OCWA CONTRACT					757	31-Dec-2020	20-Jan-2021	
70-5-0700-6720			002071		OCWA Operating Contract				276,874.61
INV8093	DEC/20 KINGSVILLE WATER TOWER ENGINEERING SERVICES					757	31-Dec-2020	20-Jan-2021	
70-7-0700-8710					Kingsville Water Tower				54,926.67
190635	**STANTEC CONSULTING LTD**								
1567148	CBS RESERVOIR GRADING					757	31-Dec-2020	20-Jan-2021	
70-7-0700-8725			700030		Cottam Booster Station				537.59
							Department Totals :		**695,636.91**

Total Unpaid for Approval :	**0.00**
Total Manually Paid for Approval :	**0.00**
Total Computer Paid for Approval :	**18,532.44**
Total EFT Paid for Approval :	**695,636.91**
Grand Total ITEMS for Approval :	**714,169.35**

Vendor : 0011450 To PT00000212
Batch : All
Department : All
Cheque Print Date : 25-Jan-2021 To 29-Jan-2021
Bank : 07 To 08
Class : All

Vendor / Invoice	Vendor Name / Description	CC1	CC2	CC3	GL Account Name	Batch	Invc Date	Invc Due Date	Amount
DEPARTMENT 0700	Union Water System								
020117	**BELL - W.P.C.I. WINDSOR**								
WINDSIN515	UW MANAGER PHONE REPLACEMENT					44	13-Jan-2021	28-Jan-2021	
70-5-0700-7280		002070			Telecommunication Purchases (non TCA)				371.77
020120	**BELL MOBILITY CELLULAR**								
514877178-JAI	BELL MOBILITY					44	01-Jan-2021	28-Jan-2021	
70-5-0700-7110		002070	002083		Telecommunications Usage				21.68
					Department Totals :				**393.45**

Vendor : 0011450 To PT00000212
EFT Paid Date : 25-Jan-2021 To 29-Jan-2021
Batch : All
Bank : 07 To 08
Department : All
Class : All

Vendor Code / Invoice No. / G.L. Account	Vendor Name / Description / CC1	CC2	CC3	GL Account Name	Batch	Invc Date	Invc Due Date	Amount
DEPARTMENT 0700	Union Water System							
010030	**ADVANCE BUSINESS SYSTEMS (WINDSOR INC)**							
723309	LAPTOP				48	21-Jan-2021	28-Jan-2021	
70-5-0700-7250		002070		Tech Hardware Purchases (non TCA)				3,690.58
010103	**ASSOCIATED ENGINEERING (ONT) LTD**							
528736	DAF RETROFIT PHASE 1				764	31-Dec-2020	28-Jan-2021	
70-7-0700-8745		700220		Treatment Plant				14,912.18
528737	CBS RESERVOIR FLOW STUDY				764	31-Dec-2020	28-Jan-2021	
70-5-0700-7989		002075		Operational Programs & Studies				6,040.98
528738	INFRASTRUCTURE NEEDS STUDY				764	31-Dec-2020	28-Jan-2021	
70-5-0700-7989		002075		Operational Programs & Studies				5,810.34
050099	**ENBRIDGE GAS INC**							
1929770208308	10,869.48M3- WTP				48	21-Jan-2021	28-Jan-2021	
70-5-0700-7410		002073		Gas				3,386.34
1929770217397	2115.16M3- LOW LIFT				48	25-Jan-2021	28-Jan-2021	
70-5-0700-7410		002073		Gas				662.89
080250	**HYDRO ONE NETWORKS INC**							
200220161473J	JAN21-METER #14				48	25-Jan-2021	28-Jan-2021	
70-5-0700-7420		002073		Electricity				49.83
70-5-0700-7420		002073		Electricity				-11.96
70-5-0700-7420		002073		Electricity				0.47
						Department Totals :		**34,541.65**

Vendor : 0011450 To PT00000212
Batch : All
Department : All
Cheque Print Date : 04-Feb-2021 To 05-Feb-2021
Bank : 07 To 08
Class : All

Vendor / Invoice	Vendor Name / Description	CC1	CC2	CC3	GL Account Name	Batch	Invc Date	Invc Due Date	Amount
DEPARTMENT 0700	Union Water System								
050003	**E.L.K. ENERGY INC**								
40010915-01-D	12 - 1,271.55KWH - ESSEX WATER TOWER					65	26-Jan-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				-72.05
70-5-0700-7420		002073			Electricity				245.54
40047150-03-D	12 - 1,004.69KWH - METER#9					65	26-Jan-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				-58.17
70-5-0700-7420		002073			Electricity				198.08
51976611-00-D	12 - 1,560.45KWH - KINGSVILLE WATER TOWER					65	27-Jan-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				286.94
70-5-0700-7420		002073			Electricity				-84.25
90006300-01-D	12 - 22,447KWH - COTTAM BOOSTER STATION					65	28-Jan-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				4,916.48
70-5-0700-7420		002073			Electricity				-1,443.39
					Department Totals :				**3,989.18**

Vendor : 0011450 To PT00000212
Batch : All
Department : All
EFT Paid Date : 04-Feb-2021 To 05-Feb-2021
Bank : 07 To 08
Class : All

Vendor Code / Invoice No. / G.L. Account	Vendor Name / Description	CC1	CC2	CC3	GL Account Name	Batch	Invc Date	Invc Due Date	Amount
DEPARTMENT 0700	Union Water System								
030405	**COLLABRIA**								
APGO-PRAC-1-	APGO DUES					57	04-Jan-2021	05-Feb-2021	
70-5-0700-7020		002070			Dues, Memberships and Subscriptions				474.60
STAR - DEC20	SUBSCRIPTION					767	13-Dec-2020	05-Feb-2021	
70-5-0700-7020		002070			Dues, Memberships and Subscriptions				16.94
ZOOM-INV6046	ZOOM SUBSCRIPTION					57	01-Jan-2021	05-Feb-2021	
70-5-0700-7270		002070	008002		Software Purchases				229.39
080250	**HYDRO ONE NETWORKS INC**								
200141680894-I	12 - 2175KWH - LEAM WATER TOWER					77	29-Jan-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				568.62
70-5-0700-7420		002073			Electricity				-156.30
200141681706-I	12 - 100KWH - METER#2					77	28-Jan-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				69.15
70-5-0700-7420		002073			Electricity				-19.28
200141682009-I	12 - 8411KWH - ALBUNA WATER TOWER					77	01-Feb-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				-559.18
70-5-0700-7420		002073			Electricity				2,065.08
200141683019-I	12 - 71KWH - METER#3					77	29-Jan-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				-17.14
70-5-0700-7420		002073			Electricity				62.11
200141683120-I	12 - 14KWH - METER#5					77	01-Feb-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				-13.15
70-5-0700-7420		002073			Electricity				48.16
200141683423-I	12 - 51KWH - METER#6					77	29-Jan-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				57.27
70-5-0700-7420		002073			Electricity				-15.81
200141683524-I	12 - 70KWH - METER#8					77	28-Jan-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				-17.27
70-5-0700-7420		002073			Electricity				61.97
200141683726-I	12 - 29KWH - METER#15					77	26-Jan-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				47.78
70-5-0700-7420		002073			Electricity				-13.90
200141687362-I	12 - 1KWH - METER#22					77	28-Jan-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				-12.62
70-5-0700-7420		002073			Electricity				45.23
200141687766-I	12 - 27KWH - METER#29					77	28-Jan-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				-14.34
70-5-0700-7420		002073			Electricity				51.45
200141687867-I	12 - 1KWH - METER#24					77	28-Jan-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				45.19
70-5-0700-7420		002073			Electricity				-12.60
200141690190-I	12 - 164KWH - METER#26					77	27-Jan-2021	04-Feb-2021	
70-5-0700-7420		002073			Electricity				-23.90
70-5-0700-7420		002073			Electricity				85.65
150365	**ONTARIO CLEAN WATER AGENCY**								
INV0000000919	2020 CAPITAL YE RECONCILABLE EXPENSES					77	29-Jan-2021	04-Feb-2021	
70-5-0700-6720		002071			OCWA Operating Contract				6,757.48
190185	**SGS CANADA INC. ENVIRONMENTAL SERVICES**								
11394667	WATER QUALITY STUDIES CORROSION-KINGSVILLE					77	26-Jan-2021	04-Feb-2021	
70-5-0700-7961		002075			Water Quality/Corrosion Monitoring Prgm				196.62
11394669	WATER QUALITY STUDIES CORROSION-LAKESHORE					77	26-Jan-2021	04-Feb-2021	

Vendor : 0011450 To PT00000212 EFT Paid Date : 04-Feb-2021 To 05-Feb-2021
Batch : All Bank : 07 To 08
Department : All Class : All

Vendor Code / Invoice No. / G.L. Account	Vendor Name / Description	CC1	CC2	CC3	GL Account Name	Batch	Invc Date	Invc Due Date	Amount
DEPARTMENT 0700	Union Water System								
70-5-0700-7961			002075		Water Quality/Corrosion Monitoring Prgm				98.31
11394674	WATER QUALITY STUDIES CORROSION-LEAMINGTON					77	26-Jan-2021	04-Feb-2021	
70-5-0700-7961			002075		Water Quality/Corrosion Monitoring Prgm				98.31
11394675	WATER QUALITY STUDIES CORROSION-UWSS					77	26-Jan-2021	04-Feb-2021	
70-5-0700-7961			002075		Water Quality/Corrosion Monitoring Prgm				621.50
190755	**SUN LIFE ASSURANCE COMPANY OF CANADA**								
FEB-21	FEB/21 UNION WATER LOAN 3724:1					77	04-Feb-2021	04-Feb-2021	
70-5-0700-6100			002010	006901	Debenture Interest				93,418.80
70-5-0700-6000			002020	006901	Debenture Principal				48,803.84
							Department Totals :		**153,047.96**

Vendor : 0011450 To PT00000212
Batch : All
Department : All
Cheque Print Date : 11-Feb-2021 To 12-Feb-2021
Bank : 07 To 08
Class : All

Vendor / Invoice	Vendor Name / Description	Batch	Invc Date	Invc Due Date	G.L. Account	CC1	CC2	CC3	GL Account Name	Amount
DEPARTMENT 0700	Union Water System									
020120	**BELL MOBILITY CELLULAR**									
514877178-FEI	MONTHLY CELL PHONE CHARGES	84	01-Feb-2021	11-Feb-2021						
					70-5-0700-7110	002070	002083		Telecommunications Usage	21.75
									Department Totals :	**21.75**