



**JOINT BOARD OF
MANAGEMENT**
Wednesday, September 20, 2023
9:00 AM
Kingsville Arena,
1741 Jasperson Ave.

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, July 19, 2023
Pages 2 - 8
- D. Business Arising Out of the Minutes**
- E. Items for Consideration:**
 - 1. UW/20/23 dated September 15, 2023, 2023 re: Status Update of UWSS Operations & Maintenance Activities and Capital Works from July 19th to September 15th, 2023
Pages 9 - 14
 - 2. Verbal update and Presentation
UWSS 2023 Mid-Year Financial and Expenditure update
- F. New Business:**
- G. Adjournment:**
- H. Date of Next Meeting:** October 18, 2023, Kingsville Arena

/kmj



JOINT BOARD OF MANAGEMENT

Wednesday, July 19, 2023
Kingsville Arena,
1741 Jasperson Ave, Kingsville
9:00 am

MINUTES

Members Present Mayor MacDonald (Chair); Deputy Mayor Verbeke, Councillors
Union Water Dunn, Tiessen, Wilkinson - Leamington
Supply System Mayor Rogers, Deputy Mayor DeYong (Vice Chair), Gaffan,
 Patterson - Kingsville
 Mayor Bondy - Essex
 Deputy Mayor Walstedt - Lakeshore

Also in Attendance: Rodney Bouchard, Union Water Supply System Manager
For UWSS Kristine Johnson, Recording Secretary

Municipal Staff Rob Mackie - Town of Essex
Present: Shaun Martinho - Town of Kingsville
 Laura Rauch - Municipality of Leamington
 Garry Punt - Municipality of Lakeshore

OCWA Staff Ken Penney, Dave Jubenville, Robin Trepanier,
Present: Tegal Nagda

Call to Order: 9:01 am

Disclosure of Pecuniary Interest: none

Adoption of Board Minutes:

No. UW-30-23

Moved by: Councillor Dunn

Seconded by: Deputy Mayor DeYong

That the minutes of the Union Water Supply System Joint Board of Management meeting held on May 17, 2023 is received; and

That the June minutes reflect the correction of Mayor Bondy's name that had inadvertently been recorded as Deputy Mayor.

Carried

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Business Arising out of Minutes:

There was none.

Report UW/15/23 dated July 14th, 2023, re: Status Update of UWSS Operations & Maintenance Activities and Capital Works from June 16th to July 4th, 2023

The Manager reviews his report with the board. He notes that the Cottam Booster Station (CBS) reservoir mixer was inoperable, with staff still currently evaluating and trying to determine a solution. The gear box to Clarifier #4's gear box was leaking oil, however, not currently presenting a problem. He explains that this will have to be addressed in lower flow season.

The DAF system is still working well, and the manager reminds the members of the issue with the media (plastic balls) breaking apart. He notes that the replacement media provided by Napier Reid is still not robust enough for the system and therefore, it has been decided to leave this media out until a better product can be developed. The DAF still works well, the media could potentially increase the efficiency of the system.

Napier-Reid was also on-site June 29th to assist OCWA staff with the replacement of the DAF #1 temporary rapid mixer with a permanent one. The system was back in service on the same day.

The Manager explains that Filter #7 "A" side slide gate valve was broken on June 30th. A new valve has since been ordered and replacement repairs have been made. Then on July 5th maintenance staff replaced a chlorine injector for CBS that was not working properly.

Again maintenance staff noticed that vibrations back in May at CBS Pump #4. Nevro attended on July 14th to remove the pump for repairs. Nevro also removed High Lift Pump #6 to replace the motor bearing. Both repairs should take approximately four (4) weeks.

The Manager then updates the board on several projects and studies. He notes that C3 Water is making progress on the AWT capacity issues, the emergency redundancy study is still underway, location and size are currently being discussed, and Reservoir #3 project is still moving forward steadily. He notes that the greenhouse on the newly purchased property will most likely be demolished in the coming months.

He further explains that Stantec has been retained to undertake evaluation, design and engineering for the new highlift pumping system as well backup power generation system for the UWSS. Both items were budgeted 2023 capital items.

The Manager confirms that C3 Water has been retained for the pilot project concerning our billing meter chambers. Most are original and in need of upgrading, this new instrumentation will allow for staff to see several more parameters than the current meters.

Another approved capital item that is moving forward is the upgrades to the Filters PLC Panels 1 & 2. Summa Engineering (McRae Integration) will be retained for this approved capital item.

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The Manager then explains that at the Ruthven WTP the phone system is very antiquated and in need of an overhaul. Therefore, JDC.ca Inc has been selected to overhaul the system. This will allow for an entirely new system.

The UWSS will also be obtaining a data integration system through the installation of an eRIS software platform. This system will integrate data received from smart hydrant meters, data from new instrumentation, SCADA etc. Eramosa Engineering will be completing this approved capital item.

Finally, the Manager notes that the flows seemed to have plateaued and the highs have shifted to earlier in the year. 2023 flows are still up over 2022 flows, and up over the 4 year average.

Councillor Patterson indicates that the Manager has an ambitious capital projects noted in this report, with only five (5) months left of 2023, will the Manager be able to complete all of these items. The Manager indicates that some of these items are multi-year projects, but many are starting now and should be well under way during the remainder of 2023.

No. UW-31-23

Moved by: Deputy Mayor Verbeke

Seconded by: Mayor Rogers

That report UW/15/23 dated July 14, 2023 re: Status Update of UWSS Operations & Maintenance Activities and Capital Works from June 16th to July 14th is received.

Carried (UW/15/23)

Report UW/16/23 dated July 11, 2023 re: Service Level Review of UWSS Operations and Contracted Operations and Maintenance Services

The Manager reminds members of the board of their contract with the Ontario Clean Water Agency (OCWA) that expires on December 31, 2023, with the option for a 5-year renewal contract.

He explains that now might be a good time to hire a third-party consultant to perform a review, as we are coming to the end of the first 5-year contract and in the middle of restructuring. The Manager feels that it is his due diligence to ensure that UWSS reviews its contracts, operations and how things we do things to ensure that operations/staffing are at optimal levels. He wants to be transparent and unbiased.

The Manager suggests that a 3rd-party consultant is hired, one that has not been used before to ensure they can look at things from a fresh perspective. He has identified several qualified persons and suggests that a report be brought back by December 31st, 2023.

Councillor Patterson suggests that the Manager works closely with the Chair and Vice Chair on this matter. Deputy Mayor DeYong notes that even though this is not a budgeted item she feels that this process will be money well spent. Several other board members

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concurring. Mayor MacDonald asks if this type of review will affect moral of the staff members at the Ruthven WTP. The Manager explains that senior management are aware of the review and this review can also ensure that staff are being treated fairly through any contract, not just UWSS.

No. UW-32-23

Moved by: Deputy Mayor Walstedt

Seconded by: Deputy Mayor DeYong.

That report UW/16/23 dated July 11, 2023 re: Service Level Review of UWSS Operations and Contracted Operations and Maintenance Services report is received; and

It recommended that the Union Water Supply System Joint Board of Management (Board) authorizes a budget of \$50,000 to be funded from UWSS Reserves to undertake a Service Level Review of UWSS Operations including contracted Operations & Maintenance Services for UWSS Facilities; and,

That the Board delegates authority to the UWSS General Manager to solicit and retain a consultant to complete the Service Level Review and review with the Chair and Vice Chair; and,

That the UWSS General Manager reports back to the Board by December 31st, 2023 with results and recommendations of the Service Level Review

Carried (UW/16/23)

Report UW/17/23 dated July 13, 2023 re: UWSS Asset Management Strategy and Asset Management Plan

The Manager explains that all members should be aware of their individual municipality's asset management plans. He notes that while Leamington does a fantastic job for UWSS, going forward as restructuring takes place, this will need to be taken away from Leamington's duties. UWSS will need to meet specific requirements under the new corporation.

The Manager explains that Associated Engineering has been retained to handle this process of developing a policy for UWSS Inc. He further notes that this is not an item that has been budgeted for but notes sufficient funding in the reserves for a budget of \$96,200.

The Vice Chair asks why the Manager is considering AE for this project, and the manager explains that this firm has been with UWSS for some time and knows the system and can get this item ready quickly.

The manager further notes that a procurement policy will be brought forward, most likely at the next meeting.

No. UW-33-23

Moved by: Councillor Dunn

Seconded by: Councillor Abraham

That report UW/17/23 dated July 13, 2023 re: UWSS Asset Management Strategy and Asset Management Plan is received; And

That the Water Supply System Joint Board of Management (Board) authorizes a budget of \$110,000 to be funded from UWSS Reserves to develop an Asset Management Strategy and prepare an Asset Management Plan for UWSS; and,

That the Board authorizes the UWSS General Manager to award a contract in the amount of \$96,200 (excluding HST) to Associated Engineering to develop and prepare the UWSS Asset Management Strategy and Asset Management Plan.

Carried (UW/17/23)

Report UW/18/23 dated July 11th, 2023 re: Line of Credit between UWSS Joint Board of Management and UWSS Inc.

The Manager informs the board that a similar report was brought before the UWSS Inc Interim Board and adopted by them. He notes that UWSS Inc. will require funds to allow for operations to continue and a line of credit between both entities seems like an easy fit. There was no further discussion.

No. UW-34-23

Moved by: Deputy Mayor DeYong

Seconded by: Mayor Rogers

That report UW/18/23 dated July 11th, 2023 re: Line of Credit between UWSS Joint Board of Management and UWSS Inc. is received; And

That the Union Water Supply System Joint Board of Management delegates authority to the UWSS General Manager to establish a line of credit between UWSS Inc. and the Union Water Supply System Joint Board of Management in the amount of \$2 million to allow for UWSS Inc. undertake necessary administrative and operational activities

Carried (UW/18/23)

Report UW/19/23 dated July 17th, 2023 re: New Reservoir and UV Facility - Alternate Project Delivery Approach

The Manager reminds members of the need to commence the Reservoir #3 project and notes that Associate Engineering (AE) has provided Technical Memo (TM) #7 and is attached to this report. This TM #7 identifies delivery methods. The Manager briefly reviews each of the delivery methods and how each would work for this particular project and further notes that the Reservoir #3 project does have a Ultra-Violet (UV) component to it.

The Manager explains that AE has recommended a Construction Manager as Advisor/Agent (CMA) and Construction Manager at Risk (CMAR) method for this project. This type of collaborative delivery method would utilize early contractor involvement and a partnership approach to the delivery of this project.

The Chair asks how efficient this type of delivery method is and how would UWSS obtain a person to manage this project under this direction. The Manager notes that this is happening more and more and various colleagues within the water industry are using this method to allow projects to move forward with greater ease and avoid too many change orders.

Other members of the board suggested that this project should get underway as prices seem to be going up daily. Members of the Board understand that this delivery method allows for shared risk and there is potential savings of ½ a year by having a specific project manager on site for this build.

No. UW-35-23

Moved by: Councillor Tiessen

Seconded by: Deputy Mayor Verbeke

That report UW/19/23 dated July 17, 2023 re: New Reservoir and UV Facility Alternate Project Delivery Approach is received; And

That the Union Water Supply System Joint Board of Management (UWSS JBM) authorizes the UWSS General Manager to proceed with the Construction Manager as Advisor/Agent and Construction Manager at Risk (CMA/CMAR) project delivery approach for the Reservoir #3 and Ultraviolet (UV) primary disinfection system project; and,

UWSS JBM authorizes a budget of \$100,000, to be funded from UWSS reserves, to retain a Construction Manager, as part of the CMA/CMAR project delivery approach for the Reservoir #3 and Ultraviolet (UV) primary disinfection system project.

Carried (UW/19/23)

New Business:

Councillor Gaffan asks the Manager if there has been a change in the water due to the Canadian wildfires that have been occurring this summer. The Operations Manager notes that the water has not changed.

Adjournment:

No. UW-36-23

Moved by: Mayor Rogers

Seconded by: Councillor Dunn

Time adjourned: 10:15 am

Date of Next Meeting: September 20, 2023

/kmj

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

From: Rodney Bouchard, UWSS General Manager

Date: September 15, 2023

Re: Status Update of UWSS Operations & Maintenance Activities and Capital Works from July 19 to September 15, 2023



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 July 19, 2023.

Discussion:

The UWSS General 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. Nevtro Pumps and Mechanical on-site on July 14, 2023 to remove the motor from Cottam Booster Pump #4. Previous testing of the pump in May 2023 identified significant vibration in the pump motor thrust bearing. The pump motor was reinstalled on September 6th, 2023. Testing of the pump indicated vibration still occurring in the pump. Further investigation identified that the pump shaft appears to be slightly bent. This likely occurred during the pump motor bearing failure. The entire pump will be removed and completely inspected to identify needed repairs.
2. Nevtro was on site on July 14, 2023 to remove the motor from High Lift pump #6. Previous vibration analysis conducted in June 2023 indicated that a motor bearing needs to be replaced. Pump motor repairs are on-going. The motor should be ready for reinstallation in early October 2023.
3. Kent Compressor was on site during the week of August 7th, 2023 to install a new compressor to replace compressor #1. The new compressor is replica of compressor #2. Kent Compressor also completed improvements of the entire compressor system to improve efficiency and implement auto-switch over from between compressors in case of failure or during pre-determined run time switchover. The entire system was also relocated to a better location in the compressor/ CO2 dissolution room.
4. On August 14th, 2023, a 2-year warranty inspection was completed for the Kingsville water tower coating improvements that were done in 2020. The inspection was completed by P.W. Makar Coatings Inspection Ltd. An inspection report dated August 16, 2023 was prepared by the coatings inspector. The inspection report indicates that some interior and exterior paint touch ups are required to ensure the integrity of the coating system. This work

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- is tentatively scheduled for the end of September 2023. The work will require the draining of the water tower. During this work, a new cathodic protection system will be installed to protect the water tower's interior from corrosion.
5. In the early morning of August 24th, 2023, OCWA operations staff at Ruthven Water Treatment Plant were informed of low water pressure in downtown Kingsville, within the area supplied by the Kingsville Water tower. Subsequent investigation by OCWA and Town of Kingsville staff noted that the Kingsville water tower was completely drained. The control valve VC -16 for the Kingsville tower was switched into hydraulic mode so that treated water could be delivered directly from treatment plant pressure zone to the Kingsville water tower pressure zone. Due to the low water pressure (below 20 psi), a precautionary boil water advisory was put into place on the morning of August 24th, 2024, for water users within the Kingsville Water tower service area. This was conducted in consultation with the Windsor Essex County Health Unit (WECHU). OCWA operations staff collected samples from the distribution system in the affected area and submitted the samples to an accredited laboratory for bacteriological testing. Laboratory results for these samples were returned late afternoon of August 25th, 2023, with negative results for Total Coliforms and E. coli. Based on these results, WECHU agreed to lift the boil water advisory for the affected area.
 6. The roadway to the Low Lift pumping plant was partially washed out during the August 23-24 heavy rain event. Dimenna Excavating was retained to fix the road and install new asphalt. This repair work has been completed.
 7. The DAF #1 contract warranty "operation" inspection was completed on August 29th, 2023. The inspection was completed with UWSS' engineer (Associated Engineering), DAF design engineer (Napier-Reid), and DAF #1 general contractor (Maple Reinders). DAF #1 will be taken out of service in November 2023 for cleaning and to complete the warranty inspection of the structure. A full inspection report will be prepared following the November 2023 structure warranty inspection.
 8. On September 7th, 2023, new "media" was installed in DAF #1 saturation tank by OCWA Union maintenance staff. This was completed in consultation with the DAF design engineer. DAF #1 was returned to service within the same day. Review of DAF operation since installation of the media indicates increased microbubble generation which should improve efficiency with removal of suspended solids from the raw water.
 9. OCWA Union maintenance staff noted that the soft start for High Lift pump #4 is failing. A new soft start has been ordered and will be installed once received, likely in early October 2023.
 10. A new valve and actuator for Clarifier #3 was ordered and received. This valve has been inoperative since May 2023 and Clarifier #3 has been operating without automated flow control. The installation of this valve requires draining

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- of the clarifier and thus cannot be completed until the end of the high water demand season, which typically occurs at the beginning of October each year. This work has been scheduled for the week of October 16th, 2023
11. C3 Water Inc. is making forward progress on the project to address the operational capacity and filling issues with the Albuna Water tower. The Phase 3 portion of the field testing work is still on-going. This work incorporates tests for partial increase in filling the tower, closing and opening valves in area of the tower, etc. to identify any issues. Further more intense testing of tower filling will be completed in October 2023 when water demands from the UWSS system has decreased.
 12. The consulting team of C3 Water and Stantec Consulting is making forward progress with the conceptual design for an emergency water supply sharing solution between UWSS and Windsor Utilities Commission (WUC). A project meeting was held on August 23rd, 2023 to further review draft Technical Memorandum #2 on Reservoir Locations, Sizing and Watermain Locations. C3 plans to release a revised combined TM #1 & #2 by end of September 2023 to capture the recent review comments by UWSS and WUC/Enwin. The UWSS Board will be provided a more detailed update following issuance of the final combined Technical Memorandum.
 13. Associated Engineering (AE) is making forward progress on the conceptual and indicative design for the new proposed reservoir at the UWSS owned property adjacent the water treatment plant.
 14. UWSS has retained Stantec Consulting (Windsor office) to undertake design, engineering, project management services for upgrades to the Water Treatment Plant High Lift Pumping system to include a new High Lift Pump (HL#7) in the north clearwell. Stantec has prepared a specification document and is working with pump suppliers, through a competitive process, to assist UWSS with procuring a pump. The specification document also includes provisions for installation of pump and associated components, piping and Motor Control Center. Contractor selection will be completed using a competitive process and is expected to be completed in late November 2023. A budget of \$300,000 was approved in the 2023 UWSS budget for this work.
 15. UWSS has retained Stantec Consulting to undertake evaluation, design, engineering and project management services for a new backup power generating system for the UWSS treatment plant and low lift plant. The existing backup generators for the water treatment and low lift facilities are undersized and are over 30 years old. A new backup generating system is needed to ensure reliability during power outages and to ensure adequate generating capacity for the entire system. Stantec electrical engineering staff from their London office were on-site on August 24th, 2023 to discuss the goals of the project, to complete a visual inspection of the existing back up generators, and to obtain existing and future predicted electrical consumption data for sizing of

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- the new back up generating equipment. Sizing and engineering design for this work will be completed through Fall 2023- Winter 2024.
16. UWSS has retained C3 Water to undertake a pilot project for upgrades to billing meter chambers. This work will include full design, engineering, and project management for rehabilitation of 4 billing meter chambers. A project kick-off meeting was held at the UWSS Ruthven Water Treatment plant on August 2nd, 2023. UWSS and OCWA Union staff have been working with C3 Water staff to provide requested background information, drawings, and data for these 4 chambers. A site meeting is scheduled for September 29th, 2023 so that C3 Water and retained subcontractor can inspect the billing chambers to establish design standards for chamber upgrades including electrical, communication, instrumentation, structural, etc. The engineering design work for this project will extend into Spring 2024.
 17. Summa Engineering (McRae Integration) has been retained to undertake upgrades to Filter PLC Panels 1 & 2. This work will include design, construction, and installation of the 2 PLC panels. Summa is currently building the 2 new panels. Factory Acceptance Testing (FAT) for the new panels is anticipated to occur in mid October 2023. Installation and Integration of the new panels within the SCADA system will likely occur in late November 2023.
 18. UWSS has retained JDC.ca Inc. to provide and install a new telephone system for the UWSS building facilities. JDC was selected as the preferred option from four proponents. JDC was at the Ruthven Water Treatment plant on September 14th, 2023 to conduct preliminary work for installation of the new telephone system. JDC will also be providing new redundant internet connections for UWSS facilities.
 19. UWSS has retained Eramosa Engineering to install a data integration system at UWSS. This will include installation of the eRIS software platform that will integrate all the data that is received from the smart hydrant meters, data that will be received from the new instrumentation within billing meter chambers, water quality data from SCADA, etc. An Eramosa representative was on-site on August 31st, 2023 to review the physical location for the new server and to review requirements for the new system. The project team has also been working on setting up the server and data integration. Physical deployment will occur in early October 2023.
 20. The UWSS Municipal Class Environmental Assessment Study to Provide Peaking Capacity for the Union Water Supply System” is proceeding on schedule. The retained consultant for the EA, Associated Engineering and their subconsultants, have completed a number of tasks associated with the EA process including necessary bird habitat surveys, archaeological surveys, identification of location options, filtration process alternatives, etc. for proposed treatment plant expansion. A public consultation open house is to be scheduled in October 2023. It is anticipated that the EA report will be completed in Winter 2024.

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21. Associated Strategic Advisory Services, a division of Associated Engineering (Associated) has been retained to develop an Asset Management Strategy and Policy for UWSS and to prepare an Asset Management Plan. Work has commenced on the strategy and policy. A tentative meeting is scheduled for mid-October 2023 to review preliminary results of the asset management strategy and asset management plan work.

22. Associated Engineering (AE) is making forward progress on the conceptual and indicative design for the new proposed reservoir at the UWSS owned property adjacent the water treatment plant. Draft Tech Memo #4 (TM#4) - Stormwater Management and Site Servicing, was received in July 2023 and has been reviewed.

The final geotechnical report was issued by the subconsultant, MTE Consultants, on August 21st, 2023. This report is being incorporated by AE in Tech Memo #3 (TM#3) Structural works. A draft TM#3 report will be provided the first week of October 2023. AE is also working on the Conceptual Design Report and a draft report is expected to be received the first week of October.

Further, AE is also preparing the RFP document for retaining the Construction Manager under the Alternate Delivery model. A draft RFP document is expected by end of September 2023.

The first chart shows comparative flows for 2019 through 2023 in Mega Litres (ML) and the second chart shows Millions of Imperial Gallons (MIG) for the period January 1st to September 14, 2023.

	2019	2020	2021	2022	2023
Flow to Date (ML)	12,646.91	14,471.67	15,133.33	15,715.46	15,802.32
Max Day (ML)	85.40	97.33	93.83	99.17	108.68
Min Day (ML)	20.13	25.44	26.74	27.58	32.48
Average Day (ML)	49.21	52.24	54.40	57.05	61.49
No of Days	257	258	257	257	257

	2019	2020	2021	2022	2023
Flow to Date (MG)	2,781.99	3,183.39	3,330.27	3,457.65	3,476.08
Max Day (MGD)	18.79	21.41	20.64	21.81	23.91
Min Day (MGD)	4.43	5.60	5.88	6.07	7.14
Average Day (MGD)	10.82	12.34	12.96	13.45	13.53
No of Days	257	258	257	257	257

Flows to date are up 86.86 ML (18.43 MIG) or 0.5% from last year. The 2023 flows to date are up 9% over the previous 4-year average.

Re: UW/20/23 - Status Update of UWSS Operations & Maintenance Activities and
Capital Works from July 19 to September 15, 2023

Recommendation:

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

Respectfully submitted,



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

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