



Union Water Supply System Inc.

Board of Directors Meeting

Wednesday, May 15th, 2024

9:00 am

Kingsville Arena, 1741 Jasperson

AGENDA

A. Call to Order:

B. Welcoming Remarks

C. Disclosures of Pecuniary Interest:

D. Approval of Minutes:

Minutes of the Board of Directors Meeting held on April 17th, 2024
Pages 3 - 10

E. Business Arising Out of the Minutes

F. Items for Consideration:

1. UWSS/13/24 dated May 10th, 2024
RE: Status Update of UWSS Operations & Maintenance Activities and Capital Works from April 12th to May 10th, 2024
Pages 11 - 13
2. UWSS/14/24 dated May 9th, 2024
RE: Budget Approval Request - Reservoir Expansion Project - Detailed Design, Engineering, Project Management, and other Works
Pages 14 - 17
3. UWSS/15/24 dated May 9th, 2024
RE: Update on Request for Proposal for Construction Management Advisor to Support UWSS Capital Works Program
Pages 18 - 21
4. UWSS/16/24 dated May 9th, 2024
RE: Award of Conceptual & Detailed Design and Engineering Services - Dissolved Air Flotation (DAF) Retrofit for Clarifier #4
Pages 22 - 24

5. UWSS/17/24 dated May 10th, 2024
RE: Revised Terms of Reference for Finance and Audit Committee and
Governance Committee
Pages 25 - 28

G. Verbal Update:

1. UWSS and Windsor Utilities Commission (WUC) Emergency Redundancy Study
2. Existing Long-Term Debt for the Union Water Supply System Inc.

H. Special Closed Meeting of the UWSS Joint Board of Management

Recommendation:

That the That the UWSS Inc. Board of Directors move into a Special Closed Meeting, pursuant to the Municipal Act Section 239 (2)(f)(j) for the following reason:

Matters for Consideration:

Legal discussion Under Municipal Act Sections 239 (2)(f)(j) wherein UWSS Inc.'s solicitor will provide (f) advice subject to solicitor-client privilege, including communications necessary for that purpose (j) a trade secret or scientific, technical, commercial or financial information that belongs to the municipality or local board and has monetary value or potential monetary.

- New Financing for Union Water Supply System

I. Disclosure of Pecuniary Interest and General Nature Thereof

J. Adjournment of Special Closed Meeting

K. Report on Closed Session

L. New Business:

M. Action Items:

N. Comments, Announcements, and Other Business:

O. Adjournment:

P. Date of Next Meeting: June 19th, 2024 9:00 am Kingsville Arena

/kmj

**Board of Directors
Meeting**

Wednesday, April 17, 2024
9:00 am

Kingsville Arena, 1741 Jasperson



MINUTES

Directors	Hilda MacDonald (Chair) Kim DeYong (Vice Chair) Sherry Bondy Tom Kissner Kirk Walstedt Dennis Rogers Mike St. Amant Sebastian Schmoranz John Tofflemire Wayne Wharram Larry Verbeke
Absent	Lori Atkinson
Also in Attendance: For UWSS	Rodney Bouchard, UWSS Inc. Chief Executive Officer Christine Johnson, UWSS Inc. Office Administrator
Guest	William Willis, Willis Business Law - UWSS Legal Counsel
OCWA Staff	Ken Penney, Dale Dillen, Dave Jubenville, Robin Trepanier, Dan Comartin
Municipal Staff Present	Katie McLean, Shannon Belleau - Municipality of Leamington Rob Mackie - Town of Essex

Call to Order: 9:04 am

Welcoming Remarks:

The Chair welcomes everyone to the meeting.

Disclosure of Pecuniary Interest: none

Adoption of Board Minutes:**No. UWSS-16-24**

Moved by: Director Verbeke

Seconded by: Director Wharram

That the minutes of the Union Water Supply System Inc. Board of Directors meeting held February 21, 2024 is received.

Carried

Business Arising out of Minutes:

There was none.

Items for Consideration**Report UWSS/09/24 dated April 11th, 2024 re: Status Update of the UWSS Operations & Maintenance Activities and Capital Works from February 16th to April 11th, 2024**

The CEO reviews his report with the members of the board. He notes that staff upgraded the level transmitter on Filter #5, which will assist with optimization of the system. The five (5) year reservoir inspections have been completed by Watech Services. He notes that leaks were detected in Cottam Booster Station (CBS) reservoir as well in the WTP reservoir #1. Significant repairs are required in Cell #2 of CBS reservoir and quotes are being obtained. Preliminary estimate of repair costs are \$75k for just CBS, he will have to bring a report back to the board once quotes are received. Director Tofflemire asks for clarification on where the leaks are occurring, the CEO notes that the leaks are at the joints.

The sodium hypochlorite at the Low Lift has been turned on for the zebra/quagga mussel control at the intakes, this is seasonal in nature.

The CEO is happy to announce that the Quench Buggy has arrived and is almost ready for community service. Some logo features and designs are currently being drawn up and should be ready shortly. This is a first come first serve use and will be available with the assistance of OCWA employees. More details will follow once the information is available on our website.

Clarifier #4 has been returned to service for the higher flow season, it had been out of service for maintenance and to allow Napier Reid to complete the 3D scan, as we prepare to convert this clarifier over to DAF #2. It will be taken out of service in September to allow for this conversion.

Several smaller items of note, a flow meter has been installed on the CBS overflow pipe, the annual MECF inspection has been completed, annual maintenance on the transformers has been completed, the new Trane HVAC unit at the WTP has been

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installed and the new travelling screen #4 has been installed at the Low Lift. The CEO notes that travelling screen #3 will have to be removed to allow for extensive repairs. He also indicates that 3 screens are being used at all times.

The DAF #1 scraper arm required repairs, wherein Napier-Reid attended to make recommendations, and in turn OCWA staff completed the repairs.

A watermain break was discovered on County Road 34 and Upcott Sideroad by County staff and confirmed by Kingsville distribution staff. The CEO notes that this watermain needs to be replaced. This break most likely occurred in January and went undiscovered for almost 3 months, he notes that staff have been concerned about pressure problems, but the source could not be identified. After repairs were made to this break, all pressures returned to normal. Unfortunately, millions of gallons of water were lost with the leak and UWSS is looking to implement a leak detection study and a leak detection system.

The CEO updates the Board on the RFP for the Construction Manager Advisor and Construction Manager at Risk (CMA/CMAR), noting it closed March 15th and AE is reviewing the 3 proposals that were received. He is expected to receive a letter of recommendation from the team this coming week.

The Municipal Class Environmental Assessment (EA) is moving forward and will be submitted to the Ministry soon for a 30-day comment period. The CEO notes that the second PIC was nicely attended. Director Walstedt asks for clarification on the Caldwell First Nation (CFN) assessment. The CEO explains that a representative for the CFN has provided comments on any concerns with the lands this project is on; CFN performed a site visit and we are just waiting on comments.

The CEO provides updates on the UWSS-WUC emergency redundancy study, noting that Technical Memo (TM)#3 has been issued and a report should be forthcoming to the board at the May meeting. The CEO then provides an update on the flow meter upgrade project noting there are significant structural issues with Chamber #2, which also happens to be under the road at County Rd 34 and Albuna, a further investigation is required. The CEO notes that this project will eventually allow for all the chambers to be upgraded and standardized. He then updates members on the OCWA contract review, being conducted through Deloitte, confirming that many stakeholders have been interviewed and the consultant should have a final report prepared by the end of April.

The CEO explains that he neglected to include the update on the Low Lift roof replacement, that has now been completed.

Finally, the CEO notes that the UWSS restructuring documents have been signed by the municipal shareholders and the actual transfer of assets should take place on April 22, 2024, after which time UWSS Inc. will have ownership of the UWSS related assets. He thanks all the municipalities for their hard work as well as William Willis and staff.

The CEO reviews the flows but explains that due to the undetected watermain break, these figures are exaggerated. He will be working with OCWA staff and municipal staff to make the necessary adjustments. He indicates that they will be adding acoustic measuring devices to assist with leak detection.

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Director St. Amant asks for clarification on the water loss, the CEO confirms that this water loss will be directly associated to UWSS Inc.

Director Bondy asks for information about the Quench Buggy and CEO indicates that once everything is finalized all contact information will be provided.

Director Tofflemire asks if there has been any coordination with the team expanding Hwy #3 and our watermain. Shaun Martinho, of Kingsville, indicates that work has already been completed and there was no cost to UWSS or Kingsville.

No. UWSS Inc-17-24

Moved by: Director DeYong

Seconded by: Director Walstedt

That report UWSS/09/24 dated April 11th, 2024 re: Status Update of UWSS Operations & Maintenance Activities and Capital Works from February 16th to April 11th, 2024 is received.

Carried

Report UWSS/10/24 dated April 11th, 2024 re: MECP Drinking Water Inspection Report for UWSS January 2024 Inspection

The CEO explains that UWSS goes through an inspection every year, this one was initiated on December 21st, 2023 and completed on March 18th, 2024. The physical inspection took place on January 23rd, 2024 at the Ruthven WTP. The UWSS system received a grade of 98.15% and the non-compliance item is one that we have been trying to correct for a while. The CEO notes that this has to do with chlorine from the residuals ponds, and UWSS has retained a consultant to design a system to address the ongoing exceedances.

Several directors ask for clarification on the pond effluent and whether there will be any fines with this particular issue. The CEO explains that there could potentially be fines if we were to ignore the issue, however, since we are working to resolve the issue, there will be no fines.

No. UWSS-18-24

Moved by: Director Schmoranz

Seconded by: Director Rogers

That the Union Water Supply System Inc. (UWSS Inc.) Board of Directors receives report MECP Drinking Water Inspection Report for UWSS for January 2024 Inspection.

Carried

Verbal Update:

The CEO provides a verbal update on the Asset Management Plan for the UWSS Inc. He explains that there is an opportunity to apply for grant funding and part of that includes having an Asset Management Plan. UWSS Inc has been working on this and the consultants have a bare bone AM plan ready to submit with the application. He further notes the applications are due Friday, April 19th, 2024. He would like to submit a basic plan.

The Directors ask if there are any legal obligations for the UWSS Inc. that could potentially bind us to some project. The CEO explains that if we are not approved there is no obligation, this is just for grant funding. He notes that this application provides our infrastructure plan and reasoning why we need to expand, including growth projections.

Director Verbeke asks whether UWSS Inc. must front any money in order to qualify for this grant. No, however, if you miss the date there is no opportunity to obtain grant funding.

Shannon Belleau, of Leamington, asks if UWSS Inc. is including the four (4) local municipalities on the application. The CEO indicates that this application is just for UWSS Inc. for the expansion.

The CEO reaffirms that the existing Asset Management Plan can be used for the purpose of the application for grant funding.

No. UWSS-19-24

Moved by: Director Walstedt

Seconded by: Director Kissner

That the UWSS Inc. Board of Directors give the CEO delegated authority to submit the documents necessary for the application for Housing-Enabling Water System Grant Funding.

Carried

The Chair then moves onto the Addendum.

Report UWSS/11/24 dated April 16th, 2024 re: UWSS Inc. Finance and Audit Committee Appointments

The Manager reminds the board of directors that this matter was discussed in January, after which the terms of reference were created with legal. Then in February, when the terms were discussed for the Finance and Audit Committee, some modifications were made to the terms.

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Director Rogers questions why there is no inclusion of local municipal staff on this committee, even as an advisory roll. The CEO notes that the committee can invite the four (4) treasurers if they wish, but they are not part of the committee.

Director DeYong also expresses concerns as she recalls that at the February meeting, when discussing the Terms of Reference, there was an understanding that the treasurers would be listed as non-voting members of this committee. She does not see this information anywhere in the Terms of Reference.

No. UWSS-20-24

Moved by: Director DeYong

Seconded by: Director St. Amant

That the Terms of Reference for the Finance and Audit Committee include reference that the four (4) local municipal treasurers are included as non-voting members of said committee.

Carried

No. UWSS-21-24

Moved by: Director Verbeke

Seconded by: Director DeYong

That the Union Water Supply System Inc. (UWSS Inc.) Board of Directors appoints the following individuals to the UWSS Inc. Finance & Audit Committee:

Voting Members

- Dennis Rogers - Town of Kingsville Director
- Tom Kissner - Town of Kingsville Director
- Wayne Wharram - Municipality of Leamington Director
- Lori Atkinson - Municipality of Leamington Director
- Mike St. Amant - Municipality of Leamington Director

Non-Voting Members

- Rodney Bouchard - UWSS Inc. CEO
- Sabrina Nazzani - Virtual CFO for UWSS Inc. (Partner at Capital Assist)

Carried

Report UWSS/12/24 dated April 16th, 2024 re: UWSS Inc. Governance Committee Appointments

The CEO reviews the names of the Governance committee. Director DeYong again reminds the board of the February conversation wherein the Terms of Reference were to include senior members of the municipal staff to be invited as non-voting members of said committee.

No. UWSS-22-24

Moved by: Director DeYong

Seconded by: Director Rogers

That the Governance Committee Terms of Reference allow for the inclusion of members of senior staff of the four (4) local municipalities. They will be non-voting members.

Carried

No. UWSS-23-24

Moved by: Director Schmoranz

Seconded by: Director Tofflemire

That the Union Water Supply System Inc. (UWSS Inc.) Board of Directors appoints the following individuals to the UWSS Inc. Governance Committee:

Voting Members

- Hilda MacDonald - Municipality of Leamington Director/UWSS Inc.
Board Chair
- Kim DeYong - Town of Kingsville Director / UWSS Inc. Board Vice-Chair
- Tom Kissner - Town of Kingsville Director
- John Tofflemire - Municipality of Leamington Director

Non-Voting Members

- Rodney Bouchard - UWSS Inc. CEO

Carried

New Business:

There was none.

Comments, Announcements, and Other Business

The CEO would like to let the Board of Directors know that all the transitioning documentation has been signed by all four (4) participating municipalities and will be registered on Monday, April 22, 2024. At that time UWSS Inc. will be fully incorporated. He thanks everyone for all of their work to get to this point.

Adjournment:

No. UWSS-24-24

Moved by: Director Verbeke

Seconded by: Director St. Amant

Time adjourned: 10:10 am

(Standard of Care training followed this meeting from 10:15 until 1:15 pm)

Date of Next Meeting: May 15th, 2024, Kingsville Arena - 9:00 am.

/kmj

To: UWSS Inc. Board of Directors
From: Rodney Bouchard, UWSS Inc. CEO
Date: May 9, 2024
**Re: Status Update of UWSS Operations & Maintenance
Activities and Capital Works from April 17 to May 10, 2024**



Purpose:

To inform the UWSS Inc. Board of Directors about operational and maintenance activities and capital works projects for the Union Water Supply System since the last Board meeting on April 17, 2024.

Discussion:

UWSS management conducts regular meetings with OCWA Operations staff regarding 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. April 18th - OCWA maintenance staff replaced the electrical meter and panel for Meter 24. This pole-mounted panel/electrical meter was damaged sometime in Fall 2023 from either a storm or a collision that resulted in the pole being knocked over. The meter/electrical panel remained functional but could not be repaired/replaced until the electrical utility confirmed that there was no damage to the electrical lines.
2. May 1st - Watech Services Inc. was on site to inspect both low lift intakes as per AWWA Standards (every 2 years). Intake #2 could not be inspected due to a seized rotork valve. OCWA maintenance staff have requested quotes for the valve. An inspection report was received on May 7th for intake #1. Only minor repairs items were identified, which can be accomplished after inspection for intake #2 is completed.
3. May 2nd - DiMenna Excavating was retained to investigate a sinkhole adjacent to Meter pit #10, which is located in front of Ken Knapp Ford in Essex Centre. OCWA maintenance and DiMenna personnel noted that the sinkhole was not due to a leak associated with Meter #10 and related watermain. The sinkhole appeared to have been caused due to installation of improper fill from a previous repair that eventually washed away from stormwater/underground water flow. The sinkhole was filled with proper aggregate material.
4. May 4th - A main break was noted in the morning at Division Rd. & Road 4 in Kingsville on the 16" watermain that is a main feed to north Kingsville, Essex and Lakeshore. Town of Kingsville staff and their contractors responded to and completed the necessary repairs. Kingsville residents in the area of Division between Road 4 and Road 5 were out of water during the repair. Since this watermain is a UWSS Inc. asset, the Town of Kingsville will be reimbursed for

Re: UWSS/13/24 - Status Update of UWSS Operations & Maintenance Activities and Capital Works from April 17 to May 10, 2024.

costs associated with this main break. No cause has yet been identified for the main break.

5. May 6th - New electric flow control valve installed on Filter #4 to replace an air actuated valve. This work was completed as part of filter valve upgrades to convert from air actuated valves to electrical actuated valves.
6. An internal inspection on Surge tank #2 is scheduled to be completed by PW Makar on May 13th, 2024. This is being conducted to ensure that the interior of the tank is still in good condition.
7. A new cathodic protection system is scheduled to be installed in the Kingsville Tower during the week of June 10-14th. The water tower will need to be drained for this work to be completed. The area supplied by the Kingsville tower will be supplied directly from the plant through the pressure regulating control valve at chamber #16 on Division rd. during that time. OCWA staff have informed the Town of Kingsville of this work. UWSS and OCWA staff and will collaborate with town water department staff to ensure that any water related issues are addressed promptly.
8. On May 13th, 2024, the Town of Amherstburg will move forward with an MECP recommendation to test interconnects between Amherstburg and its neighboring Municipalities. Amherstburg has 8 interconnects in total, 3 with the Town of LaSalle, 3 with the Town of Essex (fed from UWSS) and 2 interconnects with Essex (fed from the Colchester water plant). The purpose of the test is to ascertain if the neighbouring municipalities can supply Amherstburg with enough water and pressure during a simulated plant failure/mandatory shutdown. The Amherstburg plant will be shut down during the test. Depending on conditions during the test, it is possible that the interconnects between Kingsville (fed from UWSS) and Essex in Colchester/Harrow will need to be open.
9. As noted at the April 17th, 2024 UWSS Inc. Board of Directors meeting, the 5-year reservoir inspections were completed by Watech Services Inc. for Cottam Booster Reservoir, Union Water Treatment Plant Reservoir #1 and Essex Water Tower. Leaks were noted in Cottam Booster Reservoir and some maintenance requirements noted for water treatment plant reservoir #1. Inspection reports have been given with recommendations for repair.

Significant patching repairs have been identified for Cell #2 in Cottam Booster reservoir. Watech Services provided a quote for the recommended repairs in Cell #2 of Cottam Booster in the amount of \$73,480. UWSS Inc. will retain Watech for this work since this is a specialized service. There are very few contractors that can provide these underwater repairs. Soliciting other quotes would require additional inspections by these other firms. Sufficient funds are available in the "Unforeseen Repairs" line item of the approved operational budget for this work.

10. The UWSS Municipal Class Environmental Assessment Study (EAS) for increased treatment plant capacity for the Union Water Supply System is moving forward. Associated Engineering submitted the Draft Environmental Study Report

Re: UWSS/13/24 - Status Update of UWSS Operations & Maintenance Activities and Capital Works from April 17 to May 10, 2024.

forward. Associated Engineering submitted the Draft Environmental Study Report (ESR) to the Ontario Ministry of Environment, Conservation and Parks (MECP) on April 23rd, 2024, for their review. Once MECP has completed their review, the ESR will be posted and made available for the final 30-day comment period.

11. UWSS had retained Deloitte to complete a review of UWSS contracted Operations and Maintenance services. The review was launched on March 15th, 2024, with a data/information sharing session between UWSS and Deloitte. The review kickoff meeting with Deloitte team and UWSS/OCWA leadership was held on March 26th, 2024. Stakeholder interviews were held on April 2nd with UWSS administration and on April 3rd with OCWA senior management. Stakeholder interviews with various municipalities and utilities were held during the weeks of April 15th and April 22nd. A review workshop of the draft report was completed on April 30th, 2024. It is expected that a final report and presentation will be provided to the UWSS Inc. Board for review and discussion at the June 19th, 2024 UWSS Inc. Board meeting.

The first chart shows comparative flows for 2020 through 2024 in Mega Litres (ML) and the second chart shows Millions of Imperial Gallons (MIG) for the period January 1st to May 9th, 2024.

	2020	2021	2022	2023	2024
Flow to Date (ML)	5,252.54	6,053.37	5,880.05	6,361.61	7,365.72
Max Day (ML)	65.55	64.70	76.97	78.20	76.81
Min Day (ML)	25.44	26.74	27.58	32.48	33.68
Average Day (ML)	40.40	46.93	45.58	49.31	56.66
No of Days	130	129	129	129	130

	2020	2021	2022	2023	2024
Flow to Date (MG)	1155.42	1331.58	1294.12	1399.38	1620.25
Max Day (MGD)	14.42	14.23	16.93	17.20	16.90
Min Day (MGD)	5.60	5.88	6.07	7.14	7.41
Average Day (MGD)	8.89	10.32	10.03	10.85	12.46
No of Days	130	129	129	129	130

Flows to date are up 1004.11 ML (220.87 MIG) or 15.78% from last year. The 2024 flows to date are up 25% over the previous 4-year average.

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

To: UWSS Inc. Board of Directors
From: Rodney Bouchard, UWSS Inc. CEO
Date: May 9, 2024
Re: Budget Approval Request - Reservoir Expansion Project
Detailed Design, Engineering, Project Management and other Works



Recommendation:

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

And further, that the UWSS Inc. Board approves a budget of \$1 million for work associated with detailed design, engineering & project management, greenhouse demolition, supplemental geotechnical and hydrogeological investigations, etc. for the reservoir expansion project at the 1529 Union Avenue property in Ruthven, Ontario.

Background:

In 2021, UWSS initiated the undertaking of the UWSS Infrastructure Needs Assessment to identify the drinking water treatment, transmission and capacity improvements needed to accommodate growth projections in the municipalities of Leamington, Kingsville, Essex and Lakeshore. This work was completed November 2023. Based on the results of the distribution system modelling completed as part of Infrastructure Needs Assessment Study, it was noted that the UWSS currently has insufficient treated water storage capacity in the south-east portion of the UWSS system. The existing capacity deficit of 10 megalitres (ML) is expected to increase to at least 15 ML by 2028 and greater than 30 ML if the greenhouse industry expands as projected in municipal growth plans. As such, it is vital for UWSS to increase storage capacity in its distribution system in the very short term.

In December 2021, UWSS purchased a 6.29 acre property located at 1529 Union Ave, Ruthven, Ontario. This property is located immediately south of the Ruthven Water Treatment Plant property and the north end of the 1529 Union Ave. property abuts the area of existing reservoirs at the treatment plant. The property was purchased with the intent to construct a new reservoir. The property is currently improved with 4+ acres of greenhouse, warehouse boiler house and a residential home. The greenhouse and warehouse will need to be removed to allow construction of the reservoir.

In September 2022, UWSS retained Associated Engineering (AE) to complete an indicative design for a reservoir to be located at the 1529 Union Ave property and also complete an assessment for a UV disinfection system. The Indicative Design included the implementation of a new two-cell 40 ML reservoir at the Ruthven WTP to expand the current facility's reservoir capacity and provide sufficient storage capacity for the Union Water Supply System (UWSS) until the 10-year+ / 20-year demand time horizon. This expansion project would provide additional storage capacity to meet the service demand of the growing area along with an expanded wet-well for a future pump station.

Re: UWSS/14/24 - Budget Approval Request - Reservoir Expansion Project
Detailed Design, Engineering, Project Management and other Works

As part of this design work, a subconsultant was retained to complete geotechnical and hydrogeological investigations to inform the design of the reservoirs. It is noted that these investigations were limited to areas that were accessible within and around the existing structures. The following technical memorandums (TMs) were generated as part of this indicative design work:

- TM #1: UV Technology Options
- TM#2: Hydraulic Assessment
- TM#3: Reservoir Structural Approach
- TM#4: Stormwater Management and Site Servicing
- TM#5: Standby Power and Solar Feasibility
- TM#6: Existing Greenhouse Demolition

Discussion:

AE prepared a draft indicative design report in October 2023 for review by UWSS management. As part of this report, AE developed a preliminary cost estimate for construction of the 40 ML reservoir based on the structural requirements needed to accommodate the identified subsurface soil and groundwater conditions. The report indicated that based on the preliminary geotechnical investigations, extensive water management is anticipated to be required during construction. Based on the large size of the reservoir (40 ML) and pump station, unfavourable soil conditions in some areas, and extensive dewatering requirements associated with those soils, the opinion of probable costs for the new reservoir was well over the anticipated costs of \$50 million.

In December 2023, UWSS Inc. management held a workshop with AE to determine alternatives for the reservoir expansion. The new approach would include a re-design of the reservoir to 20 ML with no future pump station and with a project target price of below \$50M. This storage capacity will satisfy the UWSS storage capacity requirements until the 10-year demand horizon. The smaller footprint of the reservoir will be easier to site in the parts of the property that have more favourable soil conditions thus requiring less dewatering and overdesign of the reservoir. The other 20 ML of storage capacity and the future pump station will be planned to be built in a more favourable location within the UWSS as part of separate, future assignments.

The following tasks will be undertaken as part of the detailed design for the reservoir expansion:

- Removal of existing greenhouse and warehouse infrastructure at 1529 Union Ave. property to allow for the construction of the reservoir expansion.
- Additional geotechnical and hydrogeological investigations, (especially in areas of greenhouse and warehouse after demolition), to further inform the location and design of reservoir expansion;
- Revision of indicative/conceptual design to re-size the reservoir from 40 ML to 20ML.

Re: UWSS/14/24 - Budget Approval Request - Reservoir Expansion Project
Detailed Design, Engineering, Project Management and other Works

- Completion of full detailed design package for new 20 ML reservoir
- Project management and contract management services

It should be noted that a Request for Proposal/Quotation has been prepared for the removal of the greenhouse and warehouse structures. This will be issued before the end of May 2024.

The following schedule is being proposed if a Notice to Proceed is issued in May 2024.

- Conceptual Design Revision - May 2024 to July 2024
- Detailed Design: July 2024 to December 2024
- Construction Start: December 2024

Financial Impact:

UWSS Inc. management is seeking a budget of \$1 million for work associated with detailed design and engineering for the reservoir #3 expansion project at the 1529 Union Ave. property. This budget would be used to fund the detailed design of the reservoir, greenhouse demolition, supplemental geotechnical and hydrogeological investigations, etc. and associated project and contract management.

UWSS Inc. management has solicited and received a proposal from AE to complete the detailed design work. AE's Scope and Fee Letter dated May 8th, 2024 is in the amount of \$603,300 and includes the following tasks:

Task 1 - Project Management & QA/QC	\$103,900
Task 2 - Revised Conceptual Design:	\$187,800
Task 3 - Detailed Design:	\$308,100
Task 4 - Provision 3 rd Party Price Review:	\$3,500
TOTAL:	\$603,300

The remaining budget would be used for fees and expenses associated with greenhouse demolition and other related on-site work to position the site for construction of reservoir.

UWSS is currently in process of securing a \$60 million credit facility to fund the construction of the reservoir expansion and other works at the treatment plant. It is anticipated that, with UWSS Inc. Board of Directors approval, the credit facility will be in place by August 2024. However, UWSS Inc. management proposes to initiate the detailed design work for the reservoir expansion immediately and thus requires UWSS Inc. Board approval of funds for this purpose.

UWSS has sufficient reserves to fund this work.

Re: UWSS/14/24 - Budget Approval Request - Reservoir Expansion Project
Detailed Design, Engineering, Project Management and other Works

Closing Comments:

UWSS Inc. Management recommends direct award of the detailed design work to Associated Engineering for the following reasons:

- Associated Engineering was retained to complete the Indicative Design for the proposed 40 ML UWSS reservoir capacity expansion. This work was completed in October 2023.
- Associated Engineering have completed a number of water treatment related projects at UWSS facilities and, thus have detailed knowledge of the processes, infrastructure layout and requirements at the Ruthven Water Treatment Plant property. Based on the knowledge gathered through these previous projects, it is anticipated that significant cost benefits would be achieved by retaining AE for this work.

Respectfully submitted,



Rodney Bouchard, CEO
Union Water Supply System Inc.

/kmj

To: UWSS Inc. Board of Directors
From: Rodney Bouchard, UWSS Inc. CEO
Date: May 9, 2024
Re: Update on Request for Proposal for Construction
Management Advisor to Support UWSS Capital Works Program



Purpose:

To inform the Union Water Supply System Inc. Board of Directors (Board) on the status and result of the Request for Proposal to retain a Construction Management Advisor/ Construction Manager at Risk (CMA/CMAR) to support the Ruthven Water Treatment Plant Capital Upgrade Program.

Background:

In September 2022, UWSS retained Associated Engineering (AE) to complete an indicative design for a reservoir to be located at the 1529 Union Ave property and complete an assessment for a UV disinfection system. The Indicative Design included the implementation of a new two-cell 40 ML reservoir at the Ruthven WTP to expand the current facility's reservoir capacity and provide sufficient storage capacity for the Union Water Supply System (UWSS) until the 10-year+/ 20-year demand time horizon. This expansion project would provide additional storage capacity to meet the service demand of the growing area along with an expanded wet-well for a future pump station.

At the July 19, 2023 meeting of the Union Water Supply System Joint Board of Management (UWSS JBM), the UWSS General Manager recommended the use of a Construction Management project delivery approach for the new reservoir and UV disinfection system project at the Ruthven Water Treatment Plant.

Construction Management is a common delivery method used in the industry to fast-track projects. It typically consists of two phases: (1) Construction Manager as Advisor/Agent (CMA) and (2) Construction Manager at Risk (CMAR), and the Construction Manager is involved during design. CMA/CMAR is preferred for complex projects involving upgrades to existing facilities. As part of this delivery method, A Construction Manager (CM) is retained by the Owner during the early phase of the design work and works in a collaborative partnership arrangement with the Owner and Design Consultant. With the early involvement of the contractor, this contract approach provides an opportunity to realize savings from the contractor's input in constructability, assessment of availability of materials early in the project, timely pricing and procurement, minimizing project timelines, and appropriate assignment of risk between the parties.

The UWSS General Manager was directed by the UWSS JBM to proceed with the implementation of a 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.

Re: UWSS/15/24 - Update on Request for Proposal for Construction Management
Advisor to Support UWSS Capital Works Program

Discussion:

A draft Indicative Design report for the 40 ML reservoir and UV disinfection project was provided to UWSS in October 2023 for review and discussion. The draft report provided a preliminary construction cost estimate for the project. AE's report indicated that the subsurface soil conditions and extensive construction dewatering needed in parts of proposed reservoir layout would result in construction costs of well over \$50 million for the reservoir alone.

On December 1, 2023 Associated Engineering (AE) issued the draft Request for Proposal for retaining a Construction Manager Advisor and Construction Manager at Risk (CMA/CMAR) for the Reservoir Expansion/UV Disinfection Project.

A review workshop with UWSS and AE project team was held on Dec 7th at AE's Markham office. The goal of the workshop was to review and identify any efficiencies (e.g. cost and financing, effort and scheduling) that may be achieved through combining projects and/or adjusting timelines for proposed upcoming capital projects including DAF#2, reservoir expansion, UV disinfection upgrades, high lift station upgrades and treatment capacity expansion. As a result of the workshop, AE was directed by UWSS management to revise the RFP document to include the DAF #2 and high lift upgrades as additional works.

The revised RFP for CMA/CMAR titled *"Union Water Supply System Inc.- Ruthven WTP Capital Upgrade Program-Contract 1 Preconstruction Services as a Construction Manager as Advisor"* was posted on MERX on February 2nd, 2024. The work of Contract 1 consists of Preconstruction Services required for the addition of a new reservoir, Dissolved Air Flotation (DAF) retrofit, and High Lift Pump Station (HLPS) retrofit at the Ruthven Water Treatment Plant.

The RFP also indicated that the successful Proponent may also be eligible, at the discretion of the Union Water Supply System, to negotiate to enter into either or all of:

- Contract 2 - Early Works as a Construction Manager at Risk (CMAR)/ GC
- Contract 3 - Reservoir Construction as CMAR/ General Contractor (GC)
- Contract 4 - DAF and HLPS Construction as CMAR/ GC
- Contract 5 - UV Disinfection Preconstruction Service as CMA
- Contract 6 - UV Disinfection Early Works as CMAR/ GC
- Contract 7 - UV Disinfection Construction as CMAR/GC
- Contract 8 - Additional Plant Capacity Preconstruction Services as CMA
- Contract 9 - Additional Plant Capacity Early Works as CMAR/GC
- Contract 10 - Additional Plant Capacity Construction as CMAR/ GC

The RFP process was issued using a "two-envelope" process; one for the technical proposal and one for the pricing.

Re: UWSS/15/24 - Update on Request for Proposal for Construction Management
Advisor to Support UWSS Capital Works Program

The RFP closed on March 15, 2024. Three proposals were received. On March 26th, 2024, UWSS and AE proposal review team completed a workshop to review received proposals.

The submissions were evaluated based on a weighing of 75% technical and 25% financial. The technical evaluation was based on project understanding, project experience and the proposed team from each proponent. The financial evaluation was based on the lump sum amounts proposed for the listed services in the RFP (ex. preparation and participation in key design meetings, evaluation of constructability and market pricing for key design submissions) along with the proponent's proposed markups on subsequent project phases.

A summary of the proposals evaluation score results is provided in the table below:

Contractor	Technical Score (max 5 points)	Financial Score (max 5 points)	Overall Score (max 5 points)	Rank
Alberici Constructors Ltd.	3.1	5.0	3.6	1
Maple Reinders Constructors Ltd.	4.0	1.8	3.4	2
Graham Construction and Engineering LP	3.5	1.2	2.9	3

The Total Upset Limit Price for Contract 1 for submittal proposals were as follows:

- Alberici Constructors Ltd: \$174,740.00
- Maple Reinders Constructors Ltd: \$488,160.24
- Graham Construction and Engineering LP: \$729,300.00

Further evaluation of proposals was conducted following the workshop to ensure compliance with the proposal requirements.

The AE proposal review team issued a recommendation of award letter on April 22, 2024 recommending that the award for Contract 1 be issued to Alberici Constructors Ltd (ACL). A notice of award was issued to ACL on April 29, 2024.

Financial Impact:

Sufficient financial resources are available in the following 2024 approved budget line items to fund the Construction Management Advisor Contract 1 - Preconstruction Services that was awarded to Alberici Constructors Ltd in the amount of \$174,740:

- Dissolved Air (DAF) #2: \$3,750,000
- High Lift Pump #7: \$650,000
- Reservoir #3 Preliminary Engineering: \$75,000

Re: UWSS/15/24 - Update on Request for Proposal for Construction Management
Advisor to Support UWSS Capital Works Program

Closing Comments:

This report is provided for information purposes.

Respectfully submitted,



Rodney Bouchard, CEO
Union Water Supply System Inc.

/kmj

To: UWSS Inc. Board of Directors
From: Rodney Bouchard, UWSS Inc. CEO
Date: May 9, 2024
Re: Award of Conceptual & Detailed Design and
Engineering Services -Dissolved Air Flotation (DAF) Retrofit of Clarifier #4



Purpose:

To inform the Union Water Supply System Inc. Board of Directors (Board) on the award of the Conceptual & Detailed Design and Engineering Services for the Dissolved Air Flotation (DAF) Retrofit of Clarifier #4.

Background:

As part of the Union Water Supply System (UWSS) Water Quality Master Plan (WQMP) completed by Associated Engineering (AE) in 2017, the pre-treatment processes (including the clarification process) were identified as the primary limiting process at the Ruthven WTP. During periods of elevated raw water turbidity (e.g. storm events), cold water conditions, fluctuations in flows, and algae blooms, the plant has had difficulty in the operation of the existing circular up-flow solids contact clarifiers. After performing a triple bottom line (TBL) and risk evaluation as part of the Water Quality Master Plan, DAF was identified as the preferred clarification alternative.

In February 2020, UWSS retained AE to provide Design, Engineering and Project Management Services for the retrofit of Clarifier #2 with a Dissolved Air Flotation (DAF) system. As part of their services, AE completed an evaluation of DAF vendors (conventional and high rate) and a hybrid, conventional DAF solution by one vendor, Napier Reid Ltd, was identified as the preferred option. Maple Reinders Constructors was awarded the construction contract through a competitive tendering process.

This retrofit project, know as DAF #1, achieved substantial completion in December 2022. Since this was a unique design, a number of improvements were made during the contract warranty period that extended to December 2023. The DAF #1 has been in operation since October 2023 and, apart from some warranty repairs and improvements, there have been no significant issues identified with operating the system. The DAF #1 performance has been within design specifications and has significantly improved clarification process at the Ruthven Water Treatment Plant.

Discussion:

As per the 2017 UWSS Water Quality Master Plan, it is intended that two or more existing clarifiers at the Ruthven Water Treatment Plant would be retrofitted with DAF units. The new building that was constructed to house DAF #1 dissolution skid, controls and electrical equipment was sized to allow for installation of needed equipment for a second DAF unit. The nearest clarifier to the DAF #1 and DAF equipment building is Clarifier #4.

Re: UWSS/16/24 - Award of Design, Engineering and Project Management Services
for Dissolve Air Flotation (DAF) Retrofit of Clarifier #4

UWSS Inc. management solicited a proposal from AE for Design, Engineering and project management services for retrofitting of Clarifier #4 to a DAF unit (DAF #2). UWSS Inc. management identified that it was in the best interests of UWSS Inc. to retain AE directly for this work due to their significant knowledge of the entire UWSS Water treatment process and because they provided design, engineering and project management services for DAF #1. AE also provided on-site inspection services during the construction of DAF #1 components.

Further, based on the knowledge gathered through the DAF #1 project, it was identified that cost benefits would be achieved by retaining AE for design and engineering services and using an improved version of the Napier-Reid Ltd DAF system that was used in DAF #1.

Operational Impacts and Schedule

The retrofit of Clarifier #4 into DAF #2 will result in the “loss” of a clarifier until DAF #2 is in operation. This will reduce the Ruthven Water Treatment Plant’s clarification capacity. However, the DAF units are designed to accommodate a much higher flow than the existing clarifiers and DAF #1 should be able to make up most of the loss. Nevertheless, it is intended that Clarifier #4 will remain in service until later September 2024 at which time water demand from the treatment plant will significantly decrease.

The following schedule is proposed as part of the Scope of Work:

- Notice to proceed: May 2024;
- Conceptual Design: April 2024 to June 2024;
- Detailed Design: July 2024 to October 2024; and,
- Construction Start: November 2024

Financial Impact:

Based on their April 16, 2024 Fee Letter/Proposal, Associated Engineering proposes to complete the design, engineering and project management services for the Clarifier #4 DAF retrofit for a fee of \$328,200. The cost breakdown per Task is as follows:

Task 1 - Project Management & QA/QC	\$64,100
Task 2 - Conceptual Design:	\$64,400
Task 3 - Detailed Design:	\$196,200
Task 4 - Provision 3 rd Party Price Review:	\$3,500
TOTAL:	\$328,200

A multi-year budget of \$7,500,000 has been established for this work of which \$3,750,000 has been approved by the UWSS Inc. Board in the 2024 UWSS Inc. Budget to be funded through existing UWSS Reserves.

Re: UWSS/16/24 - Award of Design, Engineering and Project Management Services
for Dissolve Air Flotation (DAF) Retrofit of Clarifier #4

Closing Comments:

UWSS Inc. Management solicited a proposal solely from, and awarded this work to Associated Engineering based on the following reasons:

- Associated Engineering have completed a number of water treatment related projects at UWSS facilities and thus have detailed knowledge of the processes and issues at the Ruthven Water Treatment Plant.
- Associated Engineering provided design, engineering and project management services for the DAF #1 project. AE also provided on-site inspection services during the construction of DAF #1. AE worked closely with the DAF system supplier, Napier-Reid Ltd, to develop and deliver a unique DAF system that is specifically designed for the Ruthven Water Treatment plant.
- Based on the knowledge gathered through the DAF #1 project, it is anticipated that cost benefits will be achieved by retaining AE for design and engineering services and using an improved version of the Napier-Reid Ltd DAF system that was used in DAF #1.

Respectfully submitted,



Rodney Bouchard, CEO
Union Water Supply System Inc.

/kmj

To: UWSS Inc. Board of Directors
From: Rodney Bouchard, UWSS Inc. CEO
Date: May 10, 2024
Re: Revised Terms of Reference for Finance & Audit
Committee and Governance Committee



Recommendation:

It is recommended that the Union Water Supply System Inc. (UWSS Inc.) Board of Directors adopt the following revised documents:

- Terms of Reference for the UWSS Inc. Finance & Audit Committee (version 00766988-10xE3DC9)
- Terms of Reference for the UWSS Inc. Governance Committee (version 0076917-4xE3DC9)

Background:

At the January 17, 2024 regular meeting of the UWSS Inc. Board of the Directors (Board), UWSS Inc. Management was directed by the Board to work with retained UWSS Inc. counsel to develop Terms of Reference for establishing a UWSS Inc. Audit & Finance Committee. A terms of reference document was also developed for the establishment of a Governance Committee.

These draft Terms of Reference documents were provided to the Board of Directors for review, discussion and approval at the February 21, 2024 UWSS Inc. Board meeting. At that meeting, the following motions were made and passed by the Board of Directors:

No. UWSS-08-24

Moved by: Director Rogers

Seconded by: Director DeYong

That the UWSS Inc. Board of Directors adopt the Term of Reference for UWSS Inc. Finance & Audit Committee; and

That the UWSS Inc. Finance & Audit Committee is to be advisory in nature; and

That the UWSS Inc. Finance & Audit Committee invite the local directors of finance to participate on said committee.

Carried

Re: UWSS/17/24 - Revised Terms of Reference for Finance & Audit Committee and Governance Committee

No. UWSS-09-24

Moved by: Director Verbeke

Seconded by: Director Tofflemire

That the UWSS Inc. Board of Directors adopt the Term of Reference for UWSS Inc. Governance Committee; and

That the UWSS Inc. Governance Committee is to be advisory in nature; and

That the UWSS Inc. Governance Committee invite the local directors of finance to participate on said committee.

Carried

At the April 17th, 2024 meeting of the UWSS Inc. Board of Directors, UWSS Inc. management presented a couple reports pertaining to the appointment of members to the Finance & Audit Committee and Governance Committee. At that meeting, the following motions were made and were passed by the Board of Directors (please note that these motions are not “fully” approved until the associated meeting minutes are approved by the Board):

No. UWSS-20-24

Moved by: Director DeYong

Seconded by: Director St. Amant

That the Terms of Reference for the Finance and Audit Committee include reference that the four (4) local municipal treasurers are included as non-voting members of said committee.

Carried

No. UWSS-22-24

Moved by: Director DeYong

Seconded by: Director Rogers

That the Governance Committee Terms of Reference allow for the inclusion of members of senior staff of the four (4) local municipalities. They will be non-voting members.

Carried

Re: UWSS/17/24 - Revised Terms of Reference for Finance & Audit Committee and Governance Committee

Discussion:

UWSS Inc. Management and retained legal counsel have revised the Terms of Reference documents the UWSS Inc. Finance & Audit Committee and a Governance Committee as per direction by the UWSS Inc. Board of Directors. The documents were revised to incorporate and address the following:

Finance and Audit Committee

- Per the request of the Board added language to clarify that the committee composition shall not exceed half of the composition of the Board itself
- That the CEO and a representative of Capital Assist (so long as Capital Assist is engaged by the Corporation) are non-voting members of the Committee
- That the committee appointments are for a term equal to the remainder of the current 4 year term of the directors of the Corporation
- That missing 3 committee meetings in a row without valid reason constitutes grounds for removal (at the request of the Chair, and subject to approval by the Board)
- That municipal staff shall be invited to attend committee meetings as non-voting observers
- That the Committee may retain third party advisers in further of its duties

Governance Committee

- That duties include compensation, succession planning and review of performance of the CEO
- That the committee will consist of at least 4 board members
- Per the request of the Board added language to clarify that the committee composition shall not exceed half of the composition of the Board itself
- That the CEO is non-voting members of the Committee
- That the committee appointments are for a term equal to the remainder of the current 4 year term of the directors of the Corporation
- That missing 3 committee meetings in a row without valid reason constitutes grounds for removal (at the request of the Chair, and subject to approval by the Board)
- That the Committee may retain third party advisers in further of its duties

Re: UWSS/17/24 - Revised Terms of Reference for Finance & Audit Committee
and Governance Committee

Comment

Establishing a Governance Committee and a Finance & Audit Committee of the UWSS Inc. Board of Directors will ensure proper operational and fiscal governance for UWSS Inc.

Respectfully submitted,



Rodney Bouchard, CEO
Union Water Supply System Inc.

/kmj