LLOYDMINSTER	**City of Lloydminster** **Request for Decision (RFD)**

Subject Matter: Water Treatment Plant – PAC Contractor Award
Department: Operations
Presented By: Karen Dela Rosa
Council Meeting Date: January 19, 2023

Recommendation:

1. That Council approve the increase in costs for the 2022 Capital Budget Project No.: 1841107 in the amount of $624,000 to be funded from the awarded Alberta Municipalities Water/Wastewater Partnership (AMWWP) grant.

2. That Council approve the award of the Water Treatment Plant – PAC Contractor to Filtrum Inc. of Quebec City, QC, in the amount of $785,687, excluding GST, to be allocated from the 2022 Capital Budget Project No.: 1841107 and that the Mayor and City Clerk be authorized to sign and seal all necessary documents. In addition, that Council approve a contingency allowance of 15% in the amount of $117,853, excluding GST, to be allocated from the 2022 Capital Budget Project No.: 1841107.

3. That Council approve the increase of the contract amount of ISL Engineering & Land Services Ltd. of Edmonton, AB, in the amount of $75,214 excluding GST, to be allocated from the 2022 Capital Budget Project No.: 1841107 and that the City Manager be authorized to sign all necessary documents associated with Scope Change No.: 06.

Issue: To maintain water quality as well as to improve operator input requirements the Water Treatment Plant requires an upgrade to the Powdered Activated Carbon (PAC) chemical feeder system. The upgrades are required to be retrofitted into the existing facility.

Background: The City of Lloydminster (City) retained ISL Engineering & Land Services Ltd. (ISL) to act as an owner's engineer. As part of this initial project stage a technical memorandum was completed by ISL in which an assessment of the current Water Treatment Plant and its operating systems was completed. The assessment included a recommendation for improvements to the existing PAC chemical feeder system. Various rehabilitation options of the existing system were considered and ultimately it was recommended that a modernized replacement to the existing PAC chemical feeder system was the ideal solution to improve the operations of the Water Treatment Plant.

Throughout the project planning stages it was determined that the most advantageous procurement and project delivery method was to secure a technology vendor to assist with the development of the detailed design and specifications of the system prior to securing a construction contractor. This method was chosen to ensure the designed chemical feeder system met the requirements of the existing treatment plant and its operations and was feasible to be constructed within the existing facility. The technology vendor for the project (Mequipco Ltd.) was procured in February 2022. Upon retaining Mequipco, ISL, City Administration and Mequipco worked collaboratively to finalize the detailed design and construction specifications of the PAC chemical feeder system. Once the system was designed

all required components to be supplied by Mequipco were placed in production. Delivery of the PAC chemical feeder system and associated components is expected the week of January 16, 2023.

Throughout the detailed design process, it was determined that in order to complete the installation of the modernized PAC equipment and meet current building code requirements, improvements to the existing PAC room and operating systems would be required. Thus, the scope of work for a construction contractor included any required alterations to the ventilation, fire suppression, motive water supply, and pneumatic systems within and outside the PAC room to ensure operations can commence properly once installation is completed.

The City issued a bid document publicly on the City's Bids and Tender's webpage on November 9, 2022, to procure the services of an experienced prime contractor to complete the installation of the previously procured and supplied PAC chemical feeder system and associated equipment. A pre-tender meeting was held on November 16, 2022, at the Water Treatment Plant to provide all potential vendors the opportunity to review the scope of work and gain an understanding of the intricacies of the project. Four (4) vendors attended the pre-tender meeting. In addition to a review of the scope of work a complete walkthrough of the project was completed.

The tender period closed on November 29, 2022, with one (1) submission being received and reviewed for correctness. The submission included two (2) of the vendors who attended the pre-tender Meeting. The total tender amounts, excluding GST, are summarized in the table below:

Contractor	Tender Amount, excl. GST (Construction Cost)
Filtrum Inc., Quebec City, QC	$785,687

Due to the need for the PAC chemical feeder system to be operational for dosing throughout the spring and summer months, Administration and the Contractor will endeavor to have the system completed prior to the 2023 dosing season. If in the event the PAC chemical feeder system is not operational by this time appropriate measures will be put in place to maintain water quality to either permit the PAC chemical feeder system to be completed in its entirety and brought on during the dosing season or postponed until the fall of 2023.

Due to the specialized scope of work, references were contacted for the Contractor and all sub-contractors noted within the documents to ensure experience with similar styled projects. The references included Mequipco who noted several successful similar projects with the selected contractor.

Furthermore, Administration and ISL are confident that the pricing received is reasonable for the scope of work.

Options:

1. That Council approve all motions as indicated in the Recommendation above.
2. That Council not approve the motions as indicated in the Recommendation above.
3. That Council request additional information and that the item be brought forward to a future Regular Council Meeting.

Alignment with Strategic Plan: This item is in alignment with the following strategic area: Managing our Environment and Infrastructure. These upgrades are required to ensure that the Water Treatment Plant and its associated facilities continue to function efficiently and manage the demands of the City.

Legal Review: N/A

Governance Implications: N/A

Budget/Financial Implications: The Water Treatment Plant – Powder Activated Carbon project (Capital Budget Project No.: 1841107) has an approved 2022 Capital Budget of $630,309. The anticipated costs associated with the project have been allocated as follows:

Funding Sources		
• Environmental Services Capital Reserve (1-400-410-35140) (Original Budget)	$630,309.00	
• Alberta Municipal Water/Wastewater Partnership (AMWWP Grant) (Additional Budget Request)	$624,000.00	
		$1,254,309.00
Technology Vendor Costs (Previously Approved)		
• Invoiced to date	$141,987.00	
		$141,987.00
Consultant Costs		
• 2022 Engineering Design and Tender Costs	$62,514.92	
• Contract Administration and Construction Inspection (Additional Request)	$75,214.00	
		$137,728.92
Contractor Costs		
• Construction Tender Amount, incl. Technology Vendor Novated Agreement	$785,687.00	
• Construction Contingency (15%)	$117,853.00	
		$903,540.00
Miscellaneous Costs		
• Booster Pumps	$70,000.00	
		$70,000.00
Remaining Budget		**$1,053.08**

In 2020 Council made a motion to apply to the AMWWP grant to assist with funding Water Treatment Plant projects. These projects were included within the approved 2022 Capital Budget to be funded by reserves. In August 2022, the City was awarded the AMWWP grant in the amount of $748,432 for these projects. The increased costs of the 2022 Capital Budget Project No.: 1841107 can effectively be covered by the approved AMWWP grant; the remainder of the grant will be applied to other projects accordingly. For additional breakdown, see the table below:

	2020 - 2022	2023	
Projects	*Council Approved (Total)*	*Increase in Project Costs*	*New Council Approved (Total)*
1841107 - WTP - Chemical Feeder System (Carbon)	$ 655,240	$ 624,000	$ 1,279,240
1841108 - WTP - Chemical Feeder System (Lime)	712,200	-	712,200
2041107 - WTP - Front End Engineering Design of SCADA System	265,000	-	265,000
2141101 - WTP - SCADA Replacement	775,000	-	775,000
2141116 - WTP - Ultraviolet Light Disinfection System	200,000	-	200,000
2241107 - WTP - Ultraviolet Light Disinfection System	2,000,000	-	2,000,000
	$ 4,607,440	**$ 624,000**	**$ 5,231,440**
Approved Funding			
AMWWP Awarded Amount	$ -		$ 748,432
City of Lloydminster & Other	4,607,440		4,483,008
	$ 4,607,440		**$ 5,231,440**

Environmental Implications: N/A

Report Approval Details

Document Title:	Water Treatment Plant - PAC Contractor Award.docx
Attachments:	
Final Approval Date:	Jan 17, 2023

This report and all of its attachments were approved and signed as outlined below:

Don Stang

Doug Rodwell

Dion Pollard