Staff Report to Council

Title: Award Kincardine Water Treatment Plant Reservoir Waterproofing

Report Number: Environmental Services-2024-09

Director: Infrastructure & Development

Manager: Environmental Services

Meeting Date:
Wednesday, March 27, 2024

Date to be considered by Council:
Wednesday, March 27, 2024

Recommendation:

That Council award the contract for waterproofing the Kincardine Water Treatment Reservoir to DJ Peat Roofing and Sheet Metal Ltd. for the bid price of $241,656.00 excluding the municipal share of HST;

AND FURTHER THAT Council approve a budget amendment to increase the cost of this project by $60,000 to $310,000, funded from the Water Reserve Fund 68.

Executive Summary:

The underground reservoir situated at the Kincardine Water Treatment Plant was identified through capital budget considerations to have the exterior of the reservoir water-proofed and sealed to continue to provide integrity and safety of Kincardine's drinking water.

Strategic Priorities:

C.13-Protect people, property and the environment from the effects of dangerous conditions caused by people and nature

Financial Considerations:

This project was procured in partnership with Garland Canada, Inc. The tender request provided five submissions for consideration include below.

Contractor	Bid Submission
DJ Peat Roofing and Sheet Metal Ltd.	$241,656.00

Pollard Enterprises Ltd.	$264,778.00
Grand Valley Roofing and Coating	$265,833.00
2198433 Ontario Ltd. Accent Roofing	$369,535.00
Bullock & Sons Roofing	$385,887.00

Funds were set aside through 2024 capital budget deliberations in the amount of $250,000 dollars to complete the waterproofing. The bid provided by the contractor is currently under the proposed budget figure submitted in 2024 capital, however, additional funds will be needed for rental equipment, excavation, and trucking of the soil on the reservoir. Furthermore, restoration work which includes returning the site to grade, and hydro-seeding would also need to be completed. Estimated costs for this work would be an additional $20,000 dollars.

It is also worth noting that the bid price does not carry a contingency fund for work on the reservoir. Additional funding could be needed if issues are encountered with cement quality. Additionally, staff cannot find any information to indicate the reservoir has been waterproofed in the past, however, if water-proofing materials are found on the reservoir they would need to be stripped and removed, which is also not covered in the current tender. Staff would recommend an additional $40,000 dollars to carry for the project to cover any funds that would be necessary as a contingency. An additional $60,000 request would be required from Water Reserve RF-68 to bring the total cost of the project to $310,000.

Policy:

N/A

Context and Background Information:

The Kincardine Water Treatment Plant Reservoir is located on a vacant lot just north of the water plant at 155 Durham Street. The initial three cells are older, and staff are unaware of exactly when they were brought into service. An expansion that included Cell #4 was built in 1974. The combined capacity of the reservoir is 4120m3 of drinking water.

In 2022, the reservoir was taken offline to have work completed on the interior of the first three cells. This included cement and parging work, waterproofing, and improvements to the floor area. During this process it was noted that several cutouts were in the ceiling of the reservoir, and while none of these indicated infiltration, based on age this project was identified as a strong opportunity to secure and protect the drinking water system.

The project would include stripping the existing topsoil and earth off the top of the reservoir, cleaning, and inspection of the status of the cement, and possibility of parging work. A new waterproof memberane will be installed with a 20-year warranty.

After completion, restoration work will take place by municipal staff and local contractors to restore the reservoir area, and any minor damage to the rock garden area.

Consultation Overview:

The Environmental Services team worked in conjunction with Garland Canada, Inc. to procure this project. They provided the specifications and oversight of the project and worked with Kincardine to review challenges associated with the project. This included the cutouts in the ceiling of the reservoir, and the ability to complete this project and waterproofing while leaving the reservoir online.

In addition, Kincardine worked with the Ministry of Environment Conservation & Parks (MOECP) to review reservoir conditions and determine best practices for completing the work. The MOECP did note in the 2023 Kincardine Drinking Water Inspection Report an opportunity for best practice and completing this work to strengthen the security of the drinking water system.

Finally, internal discussions have taken place among Kincardine staff to attempt to minimize any disruptions to the rock garden located just below the reservoir area. Staff have allocated the months of April and May to have this work completed, and allotted time for restoration work of the garden to avoid any current facility bookings.

Origin:

Staff Considerations & Opportunity for Improvement identified through Ministry of Environment Conservation & Parks inspection.

Implementation Considerations:

The project is slated to begin in April and conclude by May 31st. The Municipality will work in conjunction with the contractor to provide smooth timelines and considerations for weather related issues within the project. DJ Peat has provided a letter to the Municipality indicating these timelines are achievable. These timelines also align well historically to avoid hotter weather conditions, and maximum day demands where additional water demand is required.

The reservoir will continue to function and stay online as the project progresses. This consideration greatly benefits the Municipality on a timeline consideration allowing it to produce its own water, avoid costly downtime, and provide fire protection throughout the project.

Risk Analysis:

Environmental Services will monitor operational conditions throughout the project very carefully. This will likely include running a somewhat higher chlorine residual in the reservoir, monitoring to ensure there is no contamination entering the reservoir, and collecting additional bacterial samples from the area as due diligence.

The project mitigates many long-term risks for the Municipality. It strengthens the security and integrity of the reservoir and drinking water system. It allows ratepayers and stakeholders to continue to have faith and confidence in the drinking water system. It shows a proactive approach to safeguarding our drinking water and aligns well with many elements of the Drinking Water Quality Management Standard including SLD-07 Risk Assessment and addressing hazards or risks, SLD-09 Organizational Structures, Roles, and Responsibilities acknowledging that we have a responsibility in our roles to safeguard the drinking water

systems, and SLD-20 acknowledging managements review of recommendations and best practices.

Attachments: N/A

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