

Staff Report to Council

Title: KWTP Raw Water Intake Line

Report Number: Environmental Services-2024-22

Director: Infrastructure & Development

Manager: Environmental Services

Meeting Date:
Wednesday, August 14, 2024

Date to be considered by Council:
Wednesday, August 14, 2024

Recommendation:

That Council approve a budget amendment to add a new 2024 Capital Project KWTP Raw Water Intake Line with an estimated cost of \$300,000 dollars funded from the Water Reserve Fund 68, to complete necessary repairs on the intake line feeding the water plant in Kincardine; and

Further, that Council supports a staff recommendation to work in conjunction with the contracted municipal engineers to evaluate the difficult conditions of this project and apply the exemptions of 3.2 and/or 3.9 of the Procurement Policy to allow the project to sole sourced to support success and safe completion to ensure the delivery of water to the drinking water system.

Executive Summary:

Council is being asked to support the creation of a new project to complete vital repairs to the Raw Water Intake Line feeding the Kincardine Water Plant. Additionally, based on the difficult nature of the project Council is being asked to support that the project be sole sourced through our procurement policy under the following sections; 3.2 Only One Supplier (absence of competition due to technical reasons and 3.9 Emergency: necessary, to obtain Goods or Services required in the event of an emergency (An imminent or actual unexpected interruption of a public service essential to the community).

Strategic Priorities:

D.16-Ensure the Municipality provides value for money and long-term sustainability

Financial Considerations:

This is a new project that was not included in budget considerations for 2024. The funding source of the project is required to be through RF68, at an estimated cost of \$300,000 dollars. The project is unique and will potentially involve multiple contractors at multiple stages to be successful. While an estimate has been provided, the project will have to be completed on a time and material basis, but successful contractors would have to provide budget rates prior to any work proceeding.

Policy:

N/A

Context and Background Information:

The Environmental Services department is working with multiple partners performing various tests in conjunction with the plan to extend water servicing to the Bruce Power site. These tests have included stress tests on our current system including the raw water intake line. In early June 2024, contractors were hired to use a remote operator vehicle (ROV) at the intake line at the Kincardine water plant. This work found a broken butterfly valve in-line with some rope entanglement that needs to be removed. This line is currently the only line that feeds water into the water plant for treatment purposes. The current state does restrict flows but is not posing any operational problems. However, in the event that this broken piece were to shift or move, it is possible it could further restrict or block the line.

Consultation Overview:

The Municipality has already started the process of working with its engineering partners to review options for the repair of this valve. Based on current assessment the belief is that the best option will be to dig down on the perimeter of the low lift building and work to cut/remove the existing valve and then repair with new pipe and fittings. This project would be fast-tracked to attempt to get these works completed in the Fall of 2024, when lower flows are typically managed through the facility. The work is very difficult with factors such as excavation depth of about 20 feet, difficult soil and groundwater conditions. The possibility the area will need to be de-watered, or divers may be needed to work underwater to make the repairs. Based on these considerations, advice from our consultants, and the importance of this intake line to provide water to the community, this project may be best to be sole source for the continued delivery of water and overall success of the project.

Origin:

Infrastructure review and testing of the water treatment plant.

Implementation Considerations:

The goal would be to see the project completed sometime between September to November 2024. These align with lower flow consumption and demand on the system. The project timeline would likely be about 4-5 days. This would include a difficult stretch of 24-36 hours where water production may be limited or stopped at the water plant. Water restriction

measures would be implemented on anyone on the Kincardine Drinking Water system for that week, and alternatives such as pumping water to our current low lift building or going on the Huronville system may be considered. The Huronville system allows us to bring water from an alternative well source, and at a minimum could be used to maintain flow and system pressure during the forecasted shut down for repairs to the intake line. This process would have to be worked in partnership with Huron-Kinloss and their current water system operations team. The estimated volume of water that would be required would be about 6000m³ over two days, with an additional cost of about \$15,000. Fire flows would also be affected during the duration of the project.

Risk Analysis:

The significant risk to the Municipality currently is the condition of the butterfly valve. It appears to be secure, but in the event that it were to shift or restrict flow further it could impact our ability to produce water. The timing of the works is important, if circumstances were to change the winter months would make repairs extremely difficult and prolong the project. The production of water through the repairs will provide challenges for the department, and contingency plans will have to be established and tested to ensure water production.

Attachments: Image Attached from Inspection

Prepared by: Mark O'Leary

Submitted by: Mark O'Leary