



TOWN OF MINTO

MEETING DATE: June 4th, 2024
REPORT TO: Mayor and Council
SERVICE AREA: Public Works – Wastewater Services
SUBJECT: PW 2024-016 - Clifford Sand Filter Media Replacement Tender Results and Budget Amendment

RECOMMENDATIONS:

THAT Council of the Town of Minto receive report PW 2024-016 regarding Clifford Sand Filter Media Replacement Tender Results and Budget Amendment;

THAT the Town’s 2024 Capital Budget be amended by \$90,000 to include additional funding for the Clifford Sand Filter Media Replacement project with funding provided from the Wastewater Capital Reserve; and

THAT Council of the Town of Minto awards Tender PW 2024-06 - Supply, Load Haul and Deliver Filter Sand to Donegan’s Haulage (2010) Limited for the estimated total of \$86,800.00 excluding HST.

BACKGROUND:

The Clifford lagoon is a facultative lagoon with a pre-treatment aeration three (3) primary cells for treatment four (4) sand filter cells for final treatment followed by two (2) final storage and polishing cells. The system historically has operated impressively well, however over the past couple of year performance at the Clifford lagoons has dropped off, most notably in the sand filters. The sand filters capacity has reduced to the point they are backing up the treatment process causing damage to irrigation infrastructure.

Staff have been performing regular maintenance and completing restorative tasks such as removing all vegetation, tilling the sand to remove any compaction, and removing layers of sand from the 4 filter beds.

In November 2023 the original consulting engineer from the sand filters construction (GM Blueplan now GEI Consultants) was contacted and ultimately determined the sand was at end of life and needed to be replaced (report attached).

COMMENTS:

Consultants have prepared a summary cost estimate for full depth replacement of the sand for \$204,000.00. Prior to the summary cost estimate, \$50,000.00 was requested in the 2024 capital budget as a placeholder understanding some capital work was needed at the

Clifford Lagoons however, the full extent was not known at the time of the capital budget submission.

After reviewing the cost summary, staff believe there is an opportunity for cost savings by sourcing the filter sand inhouse, using staff as labour and local contractors to excavate and replace the sand in the filter beds. Irrigation equipment and subsurface drainage infrastructure is to be inspected and repaired by town staff. The consultant has agreed this will be a more cost-effective way to complete the project.



Figure 6a: Filter Cell 3 (facing north)



Figure 6b: Filter Cell 1 (facing north)



Figure 6c: Filter Cell 2 (facing north)



Figure 6d: Filter sand test pit

May 28th at 10:10 am Tender PW 2024-06 – Supply, Load Haul and Deliver Filter Sand closed with the Town receiving two (2) bids. The exact volume and metric tonnes required is unknown, so the tenders were evaluated on a per metric tonne price (\$/tonne) delivered to the Clifford Lagoon.

Contractor	Estimated Quantity	Unit Price per metric tonne	ESTIMATED TOTAL (excluding HST)
Arnill Construction Limited o/a Seeley and Arnill Construction	1,400 m3 or approx. 2,800 tonne	\$49.45	\$138,460.00
Donegan’s Haulage (2010) Limited	1,400 m3 or approx. 2,800 tonne	\$31.00	\$86,800.00

Based on the Tender results, staff is recommending Tender PW 2024-06 – Supply, Load Haul and Deliver Filter Sand be awarded to Donegan’s Haulage (2010) Limited in the estimated amount of \$86,800.00 excluding HST.

FINANCIAL CONSIDERATION:

Included in the approved 2024 capital budget is \$50,000 for work at the Clifford Wastewater Treatment Plant.

In addition to the Tender award, additional funding is required for irrigation equipment, excavating expenses, sub-surface drainage infrastructure, and miscellaneous aggregates.

A capital budget amended in the amount of \$90,000 is required to complete the work required at the Clifford Wastewater Treatment Plant with funding provided from the Wastewater Capital Reserve.

STRATEGIC PLAN:

Goal 1: Manage Our Infrastructure

Maintain, renew, and expand our municipally owned infrastructure to enhance healthy growth and our environment.

PREPARED BY: Mark Robertson, Wastewater Services Manager

RECOMMENDED BY: Chris Harrow, Interim Chief Administrative Officer

Attachments:

- GM BluePlan – Clifford WWTP Filter Assessment Report
- Filter Sand Specifications