

**REPORT TO SAANICH PENINSULA WASTEWATER COMMISSION
MEETING OF THURSDAY, JANUARY 21, 2021**

SUBJECT **Supply of Sludge Dewatering Equipment – RFP No. 2020-632**

ISSUE SUMMARY

To seek approval to award a contract for supply of sludge dewatering equipment and to request additional funds for the project.

BACKGROUND

The 2013 Stantec condition assessment report recommended replacement of the rotary press by 2020. The existing 25-year-old press has operated well but it is nearing its end of life, is becoming more difficult to maintain, and there is no redundancy to this critical piece of equipment. The Saanich Peninsula Wastewater Commission approved funding in the 2019 budget to commence with the rotary press replacement. The scope of the project included: assessing sludge dewatering options, recommending a technology with the best triple-bottom-line, pre-purchasing the equipment, and retaining a contractor to install the equipment. The total approved capital budget for the project is \$1,190,000.

Progress to Date

Through a competitive request for proposal (RFP) process, an engineering consultant (HDR Inc.) was retained in 2020 to complete the technology review and prepare procurement documents for pre-purchasing the new equipment. HDR reviewed the following sludge dewatering technologies: rotary press, centrifuges, screw press, and a belt filter press. The screw and belt filter press equipment is too large and will not fit into the available space where the existing rotary press resides so they were not considered. A triple bottom line analysis was completed on the rotary press and two centrifuges. The rotary press ranked much higher than the centrifuges, primarily due to lower capital and lifecycle cost, equipment fit, good operator experience, less noise, and built-in redundancy.

HDR completed the preliminary design and specifications for a larger rotary press unit to accommodate population growth until the year 2045. RFP No. 2020-632 was issued for pre-purchasing the rotary press and it closed on December 4, 2020. Only one proposal was received from Fournier Industries (the same supplier as the existing press). Their proposal met all of the technical requirements and the total price was \$589,730 plus taxes. This cost is higher than originally anticipated due to a change in the fire protection and electrical code standards requiring explosion proof motors and control panels. In addition, during the preliminary design, HDR identified a number of other items that were not included in the original budget, including: demolition of a wall to remove the existing press, and a more complicated temporary dewatering system required to keep the plant running while removing the old and installing the new equipment.

Consequently, additional funds of approximately \$300,000 are required in order to complete this project. The Capital Reserve Funds have a balance of \$1,652,256 as of December 31, 2020, leaving sufficient funds available to increase the project budget and adjustments can be made to the 2021 capital plan budget to accommodate the budget increase (see revised capital plan and expenditure plan summary in Appendix A).

ALTERNATIVES

Alternative 1

1. That the Saanich Peninsula Wastewater Commission Recommends to the Capital Regional District Board that the 19-01 Project Budget, in the Saanich Peninsula Wastewater Services 2021 Capital Plan, be increased by \$300,000 from the capital reserve fund to bring the revised project budget up to \$1,490,000.
2. That the Saanich Peninsula Wastewater Commission award Contract 2020-632 - Supply of Sludge Dewatering Equipment, to Fournier Industries in the amount of \$589,730 plus taxes.

Alternative 2

1. That the Saanich Peninsula Wastewater Commission not recommend that the 19-01 Project Budget, in the Saanich Peninsula Wastewater Service 2021 Capital Plan, be increased by \$300,000 from the capital reserve fund.
2. That the Saanich Peninsula Wastewater Commission not award Contract 2020-632 – Supply of Sludge Dewatering Equipment.

Alternative 3

The Saanich Peninsula Wastewater Commission refer the report back to staff for further information.

IMPLICATIONS

Alternative 1 – Fournier Industries are a reputable Canadian company, the proposal met all of the technical requirements, and they have provided good service to the Capital Regional District (CRD) with the existing rotary press. They have indicated the equipment can be manufactured and delivered to the site by summer, in time to replace the equipment this year. Costs are higher than originally anticipated due to electrical code changes and other unanticipated conditions. There are sufficient funds available in the capital reserve fund to increase the project budget by \$300,000 to \$1,490,000.

Alternative 2 – The RFP could be cancelled, the capital reserve fund can remain unchanged, and a new RFP could be re-issued which would delay the replacement of the existing rotary press and likely result in higher costs. In addition, there would be some additional risk in operating the existing rotary press longer than its recommended replacement time and should it cease to perform properly, liquid sludge would have to be trucked to the Hartland Residual Treatment Facility at considerable extra trucking expense.

CONCLUSION

The existing rotary press has performed well over the last 25 years but requires replacement. HDR Inc. completed a technology review of dewatering equipment and then completed the preliminary design of new, larger rotary press. A RFP was issued for the pre-purchase of a new rotary press and one proposal was received from Fournier Industries. Fournier's proposal meets all of the technical requirements and their proposal amount was \$589,730 plus taxes. The cost is higher than originally anticipated due to electrical code changes and other unanticipated conditions. There are sufficient funds available in the capital reserve fund to increase the project budget by \$300,000 to \$1,490,000 in order to complete this project.

RECOMMENDATIONS

1. That the Saanich Peninsula Wastewater Commission Recommends to the Capital Regional District Board that the 19-01 Project Budget, in the Saanich Peninsula Wastewater Services 2021 Capital Plan, be increased by \$300,000 from the capital reserve fund to bring the revised project budget up to \$1,490,000.
2. That the Saanich Peninsula Wastewater Commission award Contract 2020-632 - Supply of Sludge Dewatering Equipment, to Fournier Industries in the amount of \$589,730 plus taxes.

| | |
|---------------|---|
| Submitted by: | Malcolm Cowley, P.Eng., Manager, Wastewater Engineering and Planning |
| Concurrence: | Ian Jesney, P.Eng., Senior Manager, Infrastructure Engineering |
| Concurrence: | Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer |
| Concurrence: | Ted Robbins, B. Sc., C. Tech., General Manager, Integrated Water Services |
| Concurrence: | Robert Lapham, MCIP, RPP, Chief Administrative Officer |

ATTACHMENT

Appendix A: Revised 2021-2025 Capital Plan and Expenditure Plan Summary