

**REPORT TO ENVIRONMENTAL SERVICES COMMITTEE
MEETING OF WEDNESDAY, NOVEMBER 15, 2023**

SUBJECT **Tendering of Hartland Landfill Heavy Equipment Operations Services Contract**

ISSUE SUMMARY

To request approval to issue an Invitation to Tender for Heavy Equipment Operations Services at the Hartland Landfill.

BACKGROUND

Heavy equipment services for daily landfilling operational tasks at Hartland have been contracted out since the Capital Regional District (CRD) assumed operation of the facility in 1985. The current five-year term expires on June 30, 2025 and, due to the long lead times for equipment delivery, the procurement process must be initiated soon to ensure a new contract is in place and the equipment available by then.

The scope of work includes all equipment, labour and materials for:

- daily landfilling operations, including:
 - bulldozing solid waste
 - compacting solid waste
 - excavating and backfilling controlled waste trenches
 - excavating and hauling daily cover
 - covering waste at the end of each day
- snow removal throughout the site
- emergency equipment support (i.e., landfill fires, spills, etc.)
- maintenance of site roads and ditches, including dust suppression
- installing horizontal landfill gas collection pipes

Historically, this contract had a term of five years, but due to improvements in technology that enhance equipment service life, staff believe there is potential value to the CRD in extending the contract term by up to two years. This would be included as options in the contract, with pricing provided for two one-year extensions. The decision to extend the contract would be determined by the overall condition of the equipment at the 3.5 and 4.5 year marks, respectively.

In 2022 and 2023, the CRD initiated a pilot trial to learn more about the benefits of shredding bulky waste (i.e., furniture) and Construction and Demolition (C&D) waste. Staff learned that shredding is a machine-intensive process that will result in an estimated additional annual operational cost of \$1M-\$1.5M. The economic and operational benefits far outweigh the additional cost of shredding. Staff estimate the economic benefits to be \$2M-\$3M annually based upon higher compaction (representing up to \$1M in airspace savings) and the use of shredded waste in lieu of aggregates produced onsite for a portion of the daily cover requirements (representing up to \$2M in airspace and aggregate cost savings). Operational benefits include reducing the need to tarp the waste each day, improved workability and better compaction of the solid waste. The savings on airspace will also extend the life of the landfill by several years, with a more

accurate estimation to be determined following regular shredding over a 1-2 year period. As the new diversion initiatives (carpet, wood and asphalt shingles) will have an impact on future C&D feedstock, staff recommend including shredding services in the tender as an optional item to be activated based on the availability of the appropriate type and volume of solid waste.

ALTERNATIVES

Alternative 1

The Environmental Services Committee recommends to the CRD Board:

That tendering Heavy Equipment Operations Services at the Hartland Landfill for a term of up to seven years be approved, with optional pricing for shredding services.

Alternative 2

That this report be referred back to staff for additional information.

IMPLICATIONS

Financial Implications

The average annual cost over the last three years for the current contract was approximately \$3,000,000. Staff anticipate the rates for the next contract will be significantly higher based on recent inflationary pressures, but predicting the impact on the future annual cost is difficult at this point due to uncertainties in the economy.

The 2025 Environmental Resource Management Hartland Landfill operating budget will fund this contract. Results from the tender will inform the 2024 budget process to ensure sufficient operational funding in 2025.

The total value of this contract will exceed the delegated authority limit of the CRD's Chief Administrative Officer, so Board approval is required.

Environmental Implications

Modern diesel-powered heavy equipment is designed to meet the latest emissions requirements by requiring the use of Selective Catalytic Reduction technology (to eliminate NOx) and Diesel Particulate Filters. This has been a federal requirement since 2010. As the tender will require all new equipment, there is no risk of having high emission equipment provided in response to this tender.

The only piece of equipment in this equipment category that is available for electrification is the hybrid bulldozer. It is proposed to request optional pricing for this hybrid version in the tender.

Service Implications

Performing this work with CRD resources has been considered and determined to be well beyond the current capabilities of the CRD. Bringing this work "in-house" would require a major investment of time and resources to establish a specialized heavy equipment operation that can provide these services on a safe and consistent basis.

CONCLUSION

Hartland Landfill's current heavy equipment operations services contract expires on June 30, 2025 and, based on anticipated long lead times for the critical equipment, a tender must be issued by late 2023 to ensure business continuity at the landfill. Bringing this service in-house was considered but was deemed to be far beyond the current capabilities of the CRD. Waste shredding trials at the landfill demonstrate there are significant economic and operational benefits to shredding a portion of the C&D solid waste and this should be included as an optional item to be activated based on the availability of appropriate solid waste. Issuing a tender by the end of 2023 for Heavy Equipment Operations Services will ensure a contract is in place in time for the specialized heavy equipment to be available by the end of the current contract.

RECOMMENDATION

The Environmental Services Committee recommends to the Capital Regional District Board: That tendering Heavy Equipment Operations Services at the Hartland Landfill for a term of up to seven years be approved, with optional pricing for shredding services.

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