



CITY OF VANCOUVER

ADMINISTRATIVE REPORT

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Author: Lynn Belanger
Doreann Mayhew
Phone No.: 604.940.3201
604.940.3206
RTS No.: 07639
VanRIMS No.: 08-2000-20
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TO: Standing Committee on City Services and Budgets

FROM: General Manager of Engineering Services
Manager of Supply Management

SUBJECT: Award of Contract for ITT PS08080 Contracting Services -
Landfill Phase 1 Closure Construction and Gas Control Upgrades

RECOMMENDATION

- A. THAT the Landfill Phase 1 Closure Construction and Gas Control Upgrades Project (the "Project") scope be revised from the original scope approved by Council in June 2005 (RTS No. 05067, Vancouver Landfill Capital Projects) at a revised total Project budget of \$15,620,000; with the additional budget of \$3,745,000 to be funded from the Solid Waste Capital Reserve with partial cost recovery from the Greater Vancouver Sewerage and Drainage District;
- B. THAT subject to the conditions set out in Recommendations C, D, and E, the General Manager of Engineering Services be authorized to enter into a contract with TYAM Construction Ltd. for construction services on the Landfill Phase 1 Closure Construction and Gas Control Upgrades Project at an estimated cost of \$13,192,893 (including applicable taxes and fees) with funding to be provided by the budget established pursuant to Recommendation A;
- C. THAT the Director of Legal Services be authorized to execute and deliver on behalf of the City all legal documents required to implement Recommendation B;
- D. THAT all such legal documents be on terms and conditions satisfactory to the General Manager of Engineering Services, Manager of Supply Management and the Director of Legal Services; and

- E. THAT no legal rights or obligations will be created by Council's adoption of Recommendations B, C and D above unless and until such legal documents are executed and delivered by the Director of Legal Services.

COUNCIL POLICY

Funding for all capital expenditures must be approved by Council and Council approves the award of contracts that exceed \$300,000.

In 2001, Council set the minimum balance of the Solid Waste Capital Reserve at \$30,000,000.

PURPOSE

This report seeks authorization on the revised Project scope and revised total budget of \$15,620,000 and to award the contract for the construction of the Landfill Phase 1 Closure Construction and Gas Control Upgrades to TYAM Construction Ltd. at an estimated cost of \$13,192,893 including all applicable taxes and fees.

BACKGROUND

The City of Vancouver owns and operates the Vancouver Landfill located in Delta at 5400 72nd Street. The Landfill operates under an Operational Certificate issued by the BC Ministry of Environment and is authorized to receive up to 750,000 tonnes of refuse each year. In addition to Vancouver and Delta, the Landfill provides refuse disposal services for Richmond, White Rock, and the University Endowment Lands.

The fill plan for the Landfill is comprised of nine phases as described in the 2000 Vancouver Landfill Design and Operations Plan ("D&O Plan"). Phase 1 was completed in June 2006, with the final lift of garbage added in September 2008. This lift accounted for settlement and included installation of additional landfill gas collection works. The D&O Plan prescribes progressive closure for each phase on completion to minimize the environmental impact of the Landfill by maximizing landfill gas capture and minimizing leachate generation from closed areas.

On June 16, 2005, Vancouver City Council approved a number of capital projects at the Vancouver Landfill (RTS No. 05067), including Phase 1 Closure at a cost estimated at that time to be \$11,875,000.

On January 30, 2007, Council awarded a contract to CH2M Hill ("CH2M") to provide consulting services (RTS No. 06470) which included conceptual and detailed design for Phase 1 Closure including landfill gas system upgrades and construction management services.

DISCUSSION

Bid Evaluation

In December 2008, the General Manager of Engineering Services and Manager of Supply Management sought bids for construction of the closure plan, as designed by CH2M, through an Invitation to Tender (ITT) (PS08080). Six tenders were received before the deadline and opened on February 4, 2009. The bid prices are summarized in Table 1. Three additional bids were submitted after the closing time; these bids were returned to the companies unopened as indicated in the ITT. The tenders were referred to the General Manager of Engineering Services for evaluation.

Table 1: Company Name and Bid Pricing

Company	Bid Price ¹
TYAM Construction Ltd.	\$13,023,809.00
GCL Contracting & Engineering Inc.	\$13,577,692.00
Matcon Civil Constructors	\$13,934,130.00
SouthWest Contracting Ltd.	\$15,652,325.85
Quantum Murray LP	\$16,865,739.82
HAZCO Environmental Services	\$19,441,673.38

TYAM Construction Ltd. (“TYAM”) had the lowest cost bid, with an overall price of \$13,023,809. An evaluation team composed of Engineering Services and Supply Management staff along with CH2M evaluated the bids to ensure compliance. The Evaluation Team determined that TYAM’s bid was compliant with the ITT specifications.

The total maximum value of the contract listed in the recommendation includes the base bid price of \$13,023,809 plus two optional items to a total cost of \$13,192,893. These optional items will ensure that the cover system does not erode with heavy winter rains.

Accordingly, the General Manager of Engineering Services and the Manager of Supply Management recommend hiring TYAM Construction Ltd.

FINANCIAL IMPLICATIONS

On June 16, 2005, Council approved the Vancouver Landfill Phase 1 closure (\$10,600,000) and landfill gas collection works (\$1,275,000) at a total cost of \$11,875,000 to be funded from the Solid Waste Capital Reserve. These budget estimates were made on the basis of a very draft conceptual design only.

The necessary increase in Project budget of \$3,745,000 reflects the detailed design and actual bid price as well as additional work outside the scope of the tender. This additional work includes site preparation, investigations to incorporate into the design recycled materials, such as recycled crushed concrete, development of subsoil and top soil

¹ Bid prices include GST

specifications and owner supplied materials including recycled crushed concrete and subsoil. All of this work results in savings to the City by shortening the Project schedule, avoiding the purchase of aggregate and testing materials to ensure suitability in a project of this size and scope.

Table 2 summarizes the total Project cost including an additional \$3,745,000 required to complete the work. The additional costs are reflective of construction cost escalation since 2005 as well as the inclusion of the cover soil system which was initially excluded from the design. Also, the landfill gas system upgrades are designed to allow the Landfill to meet gas generation requirements up to 2016.

Table 2: Scope of Work - Summary

Scope of Work	Cost
Consulting Services	\$908,000
Additional Preparation Work Outside Contract Scope	\$1,524,000
Construction - Closure System	\$8,989,000
Construction - Landfill Gas System Upgrades	\$4,199,000
<i>Total Projected Cost (2009)</i>	<i>\$15,620,000</i>
Previously Approved Budget (2005)	\$11,875,000
Additional Funding Required	\$3,745,000

Projects relating to closure of the Vancouver Landfill are funded directly from the Solid Waste Capital Reserve (SWCR). The SWCR was established to fund future Landfill costs, including closure and post-closure care, and address any environmental issues arising during and after operation of the Landfill. Under the 1989 Tripartite Agreement between Vancouver, Delta and Greater Vancouver Sewerage & Drainage District ("GVS&DD"), closure work is jointly funded by the GVS&DD and Vancouver. The GVS&DD's portion of the cost is based on Metro Vancouver's portion of the total amount of waste in the Vancouver Landfill at the time of closure which is anticipated in approximately 40 years. Metro Vancouver's portion is currently 21%. For the development of the Western 40 Hectares closure plan in 2003, Vancouver funded the full value of the closure project and was subsequently reimbursed by the GVS&DD for their portion. Discussions are underway with Business Planning to develop an accounting strategy for closure cost recovery from GVS&DD over the life of the Landfill.

The Solid Waste Utility budget was set by Council in December 2008 and any unplanned expenditures that cannot be funded by the Utility are funded by the SWCR. Along with the \$3.5 million increase in budget for the Landfill Phase 1 Closure Construction and Gas Control Upgrades included in this report, there are three other financial impacts on the Solid Waste Utility budget and therefore the SWCR so far in 2009. These include: the landfill fire, reported to Council on February 17, 2009, collection of recyclable materials from multi-family buildings reported to Council on February 19, 2009, and recycling commodities (to be reported to Council later in 2009). All of these expenditures will be incorporated into the overall financial requirements of the SWCR.

The costs of the landfill fire are estimated to range from approximately \$800,000 to \$1,500,000 with funding from the Landfill Operating Budget which will result in a reduced transfer to the SWCR at the end of 2009. The increase in the recyclable materials collections

contract (estimated at \$1.3 million) as well as reduced revenues from recycling commodities will be temporarily funded from the SWCR and then recovered through annual SWU fees in subsequent years.

In 2001, Council set the minimum balance of the SWCR at \$30,000,000 and directed that the requirements for the SWCR be reviewed every five years. The current balance of the Solid Waste Capital Reserve is approximately \$74 million with outstanding loans estimated at approximately \$20,000,000. A review is currently underway to determine the projected funding requirements for the SWCR to meet the estimated closure and post-closure costs for the Landfill. Upon completion, this review will be reported to Council.

ENVIRONMENTAL IMPLICATIONS

The Landfill Phase 1 Closure Construction and Gas Control Upgrades Project proposed in this report is aimed at minimizing the environmental impacts resulting from operating the Vancouver Landfill. Progressive closure for each phase of the Landfill will minimize the environmental impact from the completed areas by maximizing landfill gas capture and minimizing leachate generation.

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