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CITY OF VANCOUVER

ADMINISTRATIVE REPORT

Report Date: October 29, 2009
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Meeting Date: November 17, 2009

TO: Vancouver City Council

FROM: General Manager of Engineering Services and Manager of Supply Management

SUBJECT: Award of RFP PS09126 – Vancouver Landfill Phase 3 Design/Fill Plan Project

RECOMMENDATION

A. THAT, subject to the conditions set out in Recommendations B, C, and D, Council authorize a contract with Sperling Hansen Associates Inc. to provide Consulting Services for the Phase 3 Design/Fill Plan Project at Vancouver Landfill at an estimated cost of $96,853 (including disbursements) plus applicable taxes; source of funds to be the 2009 Landfill Operating Budget;

B. THAT, the Director of Legal Services be authorized to execute and deliver on behalf of the City all legal documents required to implement Recommendation A;

C. THAT all such legal documents be on terms and conditions satisfactory to the General Manager of Engineering Services, the Manager of Supply Management and the Director of Legal Services; and

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

GENERAL MANAGER'S COMMENTS

The General Manager of Engineering Services RECOMMENDS A to D.

COUNCIL POLICY

Consultant agreements exceeding $30,000 require Council Authorization.

Contracts are to be awarded on the basis of best overall value for the City.

PURPOSE

The purpose of this report is to seek Council authority to engage Sperling Hansen Associates Inc. to provide Consulting Services for the Phase 3 Design/Fill Plan Project at the Vancouver Landfill at an estimated maximum cost of $96,853 (including disbursements) plus applicable taxes.

BACKGROUND

The City of Vancouver owns and operates the Vancouver Landfill ("Landfill") located in Delta at 5400 72nd Street. The Landfill operates in accordance with Operational Certificate MR-01611 issued by the Ministry of Environment and under the provisions of the Regional Solid Waste Management Plan. As part of Vancouver's solid waste management system, the Landfill is authorized to dispose of a maximum of 750,000 tonnes of municipal solid waste (MSW) each year.

Approved by the Ministry of Environment, the City of Vancouver Landfill Design & Operations Plan ("D&O Plan") was completed in January 2000 and outlines the day-to-day operations at the Landfill needed to achieve the final elevation of 39 meters above sea level. The D&O Plan details final design contours which are divided into nine distinct phases as illustrated in Figure 1. Phase 1, at the easternmost end of the Landfill, was completed in early 2008, and is currently undergoing final closure with the installation of a cover system employing a flexible membrane cap. Phase 2 filling began in mid-2006 and was completed in August 2009.

The Phase 2 fill plan evolved over the time of filling in an iterative manner to manage asbestos and nuisance waste effectively as well as incorporate necessary infrastructure into the design, such as roads and surface water diversion works. Numerous modifications were made to engineering drawings to reflect actual construction of the subsequent lifts or layers. As Phase 2 approached final height, the plan for the final lift was simplified to a basic wedge shape to reduce errors in construction from overfilling. Final filling of the area will be completed with the aid of machine based GPS.

Filling in Phase 3 started in August 2009 and is estimated to continue for approximately five years. Through closure of Phase 1 and filling of Phase 2, staff realized that a detailed fill plan is necessary for several reasons, to ensure that:

- filling operations meet the Landfill's obligations outlined in the Operational Certificate;
- filling proceeds in a systematic and logical manner;
- road and other materials are minimized;
- landfill gas collection infrastructure is installed efficiently;
- surface water diversion works and leachate collection infrastructure are effective; and
- lift construction harmonizes with future closure construction.

In addition, with the increased focus on greenhouse gas emissions, construction of the Landfill needs to optimize landfill gas collection to reduce GHG emissions.

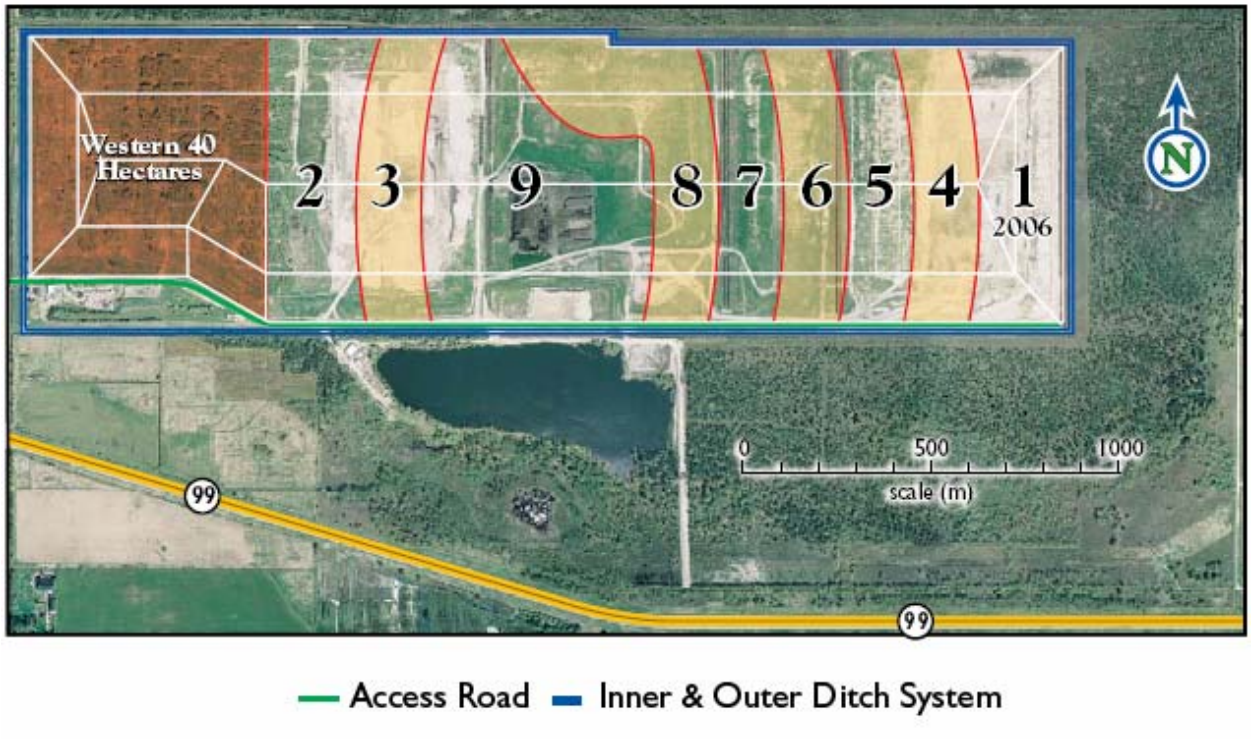

Figure 1. Vancouver Landfill Phase Locations

DISCUSSION

In August 2009, the General Manager of Engineering Services and the Manager of Supply Management sought proposals for Consulting Services for the Phase 3 Design/Fill Plan Project at Vancouver Landfill ("Project") through an RFP process (PS09126). In September 2009, three proposals were received and reviewed by the interdepartmental staff evaluation team (comprised of representatives from Engineering Services and Supply Management). A comparative and consistent matrix format was developed and used to compare the proponent's Project teams, proposal contents, proposal details and cost.

Through the evaluation review process, it was determined by the evaluation team that Sperling Hansen Associates Inc.'s ("SHA") proposal offered the best overall value to the City. SHA has extensive experience in detailed fill planning and closure design for MSW landfills in BC. SHA's proposal reflected a very thorough understanding of the Project objectives and technical requirements and clearly laid out their approach to the Project. Additionally, SHA is very familiar with the Vancouver Landfill because they have completed several projects including the Phase 1 Closure Design, the Western 40 Hectares Closure Plan and the 2000 D&O Plan.

SHA's Proposal contained a number of tasks comprising the "essential workplan items" plus "optional extra items". On detailed review, it is recommended that most of the essential tasks be included in SHA's proposal and the optional tasks be excluded as shown in Table 1. Task 8, Machine Based GPS (Global Positioning System), refers to using MBGPS for some of the initial lift construction and optimizing the design to allow the City to take advantage of MBGPS in the future. Since the City does not have MBGPS currently installed on any machines, this task is not included at this time and will be reconsidered when MBGPS is more imminent.

Two subtasks are also excluded since the first is not permitted by the Ministry of Environment and the second duplicates work already completed by City staff.

Table 1. Outline of SHA's Proposal Costs

Item		Cost, including Disbursements
Essential Workplan Items		$97,727
Less:	MBGPS Control (Task 8)	($1,067)
	Evaluate Feasibility of Retention Pond on Active Lift (Task 16.4)	($1,375)
	Analyze Economics of Vactor Trailer (Task 19.3)	($432)
Add:	Professional Liability Insurance Increase	$2,000
Total Cost Less Unnecessary Workplan Items		**$96,853**

Based on the proposal review, the evaluation team determined that SHA's proposal provides the best overall value to the City. As such, it is recommended that SHA be retained for the Project.

ALTERNATIVES/OPTIONS

The alternative would be to create plans on an on going basis through a sole source contract. The plans would have to be iteratively corrected and modified to suit actual as built conditions. This course of action was used in the past, resulting in many reactive changes and updates to record drawings and therefore is not recommended.

FINANCIAL IMPLICATIONS

The recommended contract with SHA to provide Consulting Services for the Phase 3 Design/Fill Plan Project at Vancouver Landfill is estimated at $96,853 (including disbursements) plus applicable taxes, and will be funded from the 2009 Landfill Operating Budget with costs allocated to users of the Landfill.

ENVIRONMENTAL IMPLICATIONS

The Landfill is required to meet obligations outlined in the Operational Certificate such as minimizing the size of the active area of the Landfill, controlling vectors and litter and managing surface water. In addition, detailed fill planning minimizes road and cover material needs. In addition, with the increased focus on greenhouse gas emissions, construction of the Landfill needs to optimize landfill gas collection to reduce GHG emissions through early installation of landfill gas collection works.

CONCLUSION

Following an RFP process and the evaluation of the three proposals received, the General Manager of Engineering Services recommends that the contract for Consulting Services for the Phase 3 Design/Fill Plan Project at the Vancouver Landfill be awarded to Sperling Hansen Associates Inc. (SHA). SHA's proposal provides the overall best value to the City for the required scope of work at an estimated cost of $96,853 (including disbursements) plus applicable taxes with funding provided from the 2009 Landfill Operating Budget.

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