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Halifax Regional Council
July 13, 2004

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY: 
Brad Anguish, Director, Environmental Management Services

DATE: July 5, 2004

SUBJECT: Cell 2 Closure - Otter Lake Residual Disposal Facility (RDF)

INFORMATION REPORT

ORIGIN

Capital Project CWI00622 Cell 2 Closure and Gas System at the Otter Lake Waste Management Facility is contained in the 2004-05 approved Capital Budget. This project has received all required environmental approvals and is under construction.

BACKGROUND

The Otter Lake Residual Disposal Facility is designed with nine disposal cells for use during its approximate 25 year life span. Each cell is to be operated for approximately four to five years and is closed when fully utilized, containing tonnage from approximately three full years of waste.

DISCUSSION

Cell 1 was constructed as part of the original Otter Lake capital project, Cell 2 in 1999 and Cell 3 in 2001.

Cell closure consists of site grading, geotextile, granular layer clear stone, geomembrane liner, geonet, vegetative soil and hydro-seeding and gas collection system and its construction is weather dependant. It requires a minimum of four months of reasonably good weather to install the cap, normally during the summer and fall.

The multi-year partnership agreement between HRM and MIRROR NS, Section 15, provides for the construction and closure of all cells. MIRROR NS (with their subcontractors Dexter and Dillon) submits a design and closure construction cost proposal for review. Review of all design and construction costs for the closure of Cell 2 has been completed (as was done for Cell 1 closure) by HRM staff and CBCL Limited as owner's engineer. HRM and MIRROR NS negotiated the design and closure cost (based upon the review) for Cell 2 and have mutually agreed. The Nova Scotia Department of Environment and Labour (NSDEL) has issued approval for the closure of Cell 2.

CBCL (HRM's owner engineer) has also conducted a review of the rate of cell use at Otter Lake, now that five years of operations have been completed (see attached memorandum date May 18, 2004). CBCL has advised that the average density of the waste compaction is 748 kg/cubic metre. This compares to 650 to 680 kg/cubic metre in a typical landfill that does not process and stabilize waste residue. CBCL has calculated that as of February 2004 there was approximately twenty-two years capacity available at the RDF using the information on original design and material in place to date. In addition, staff are in the process of developing and will launch a new waste diversion initiative called "Enhanced Diversion - 10% Challenge" in September 2004, which is intended to achieve a higher diversion rate and help ensure processing capacity is available and cell life at the Otter Lake landfill is extended.

BUDGET IMPLICATIONS

The 2004-05 Budget includes Capital Project # CWI00622, closure of Cell 2 and Gas System in the amount of \$3,783,000. HRM staff, CBCL (HRM owner engineer) have reviewed the design, unit price and total project cost and have negotiated a total project cost (agreed to by MIRROR NS) of \$3,657,581, plus applicable taxes, for a total price of \$3,782,999.45, which is within the budget funding allocation available.

FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

ALTERNATIVES

N/A

ATTACHMENTS

Memorandum dated May 18, 2004 from CBCL Limited.

Additional copies of this report, and information on its status, can be obtained by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

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