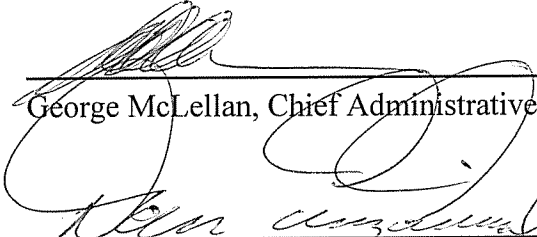


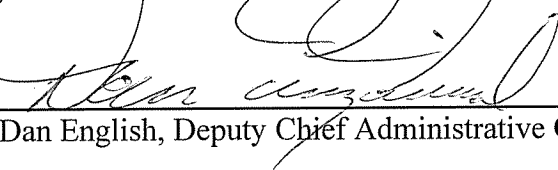
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Halifax Regional Council  
November 12, 2002

**TO:** Mayor Kelly and Members of Halifax Regional Council

**SUBMITTED BY:**

  
George McLellan, Chief Administrative Officer

  
Dan English, Deputy Chief Administrative Officer

**DATE:** November 7, 2002

**SUBJECT:** Tender #02-110, Eastern Passage Digester Cover Replacement

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**ORIGIN**

This report originates from staff.

**RECOMMENDATIONS**

It is recommended that Council:

1. increase the 2002/03 Capital Budget in the amount of \$361,600 for a new capital project, Eastern Passage Digester Cover, to be funded by a withdrawal from the Wastewater Treatment Reserve, Q122.
2. award Tender #02-110 for the supply, fabrication and installation of the Eastern Passage WPCP Digester Cover to Black and McDonald at the submitted price \$329,749.56 plus net HST for a total of \$350,952.45.
3. approve the expenditure of \$10,000 plus net HST for a total of \$10,643 for engineering inspection and construction services provided by Dillon Consultants.

## BACKGROUND

Biosolids or sludge treatment at the Eastern Passage WPCP is accomplished by means of anaerobic digestion. During this process organic solids are broken down by anaerobic bacteria resulting in methane gas formed as a major by product which is used as a boiler fuel source to heat the treatment facility buildings and the digestion process. One of the digester tanks is covered by an 11 meter diameter fiberglass floating roof with a 3.3 meter skirt attachment. This allows a large gas storage capacity as the roof raises under increasing gas pressure and volumes.

In September 2002, this roof experienced extensive cracking and the loss of stored gas. Upon inspection by staff and Dillon Consultants it was determined that extensive structural damage had taken place. The actual cause is not known, however, may include stress fractures, original assembly quality control, effect of a heavy scum layer or a combination of factors.

The estimated cost of \$150,000 to dismantle, repair and reinstall the fiberglass roof has been determined to have a high level of financial risk. As the structure has been compromised there is a strong likelihood that cracks again could form in the future. A warranty would not be available with a repair project.

Staff has recommended that a steel floating roof be installed as a replacement for the fiberglass unit. Steel roofs are most commonly used for this purpose as they provide a higher degree of strength, reliability and are less prone to leaking. Both Mill Cove and Lakeside-Timberlea WPCP(s) have fixed and floating steel roofs.

This tender does *not include* the dismantling and disposal of the existing damaged roof. Shortly, a tender will be issued followed by a request for Council approval for this phase of the project.

## DISCUSSION

The following bids were received:

- |                       |              |
|-----------------------|--------------|
| • Black and McDonald  | \$329,749.56 |
| • Westech Engineering | \$366,900.00 |
| • Eimco               | \$419,500.00 |

Black and McDonald submitted the lowest bid and will be providing a GL&V (manufacturer/supplier) cover which has exhibited a proven reliability at other HRM and Canadian facilities.

**BUDGET IMPLICATIONS**

1. Based on the price of \$329,749.56 plus net HST for a total of \$350,952.45 funding is available in the Wastewater Treatment Reserve Q122.
2. Based on the price of \$10,000 plus net HST for a total of \$10,643 funding is available in the Wastewater Treatment Reserve Q122.

The budget availability has been confirmed and approved by Financial Services.

**FINANCIAL MANAGEMENT POLICIES/BUSINESS PLAN**

This report complies with the Municipality's Multi-Year Financial Policy, 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**

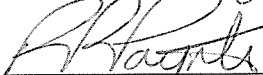
There are no recommended alternatives.

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

Report prepared by:

  
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Alan Brady, Manager of Wastewater Treatment (835-9566)

Report approved by:

  
\_\_\_\_\_  
Rick Paynter, P.Eng, A/Director of Public Works and Transportation (490-4855)