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> Halifax Regional Council November 23, 2004

TO:

Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY:

George McLellan, Chief Administrative Officer

Dan English, Deputy Chief Administrative Officer

DATE:

November 10, 2004

**SUBJECT:** 

Sole Source Purchase of Replacement Aeration Mixer Gear Box and

Motor for the Mill Cove Treatment Plant

#### **ORIGIN**

Approved 2004/05 Capital Budget.

### **RECOMMENDATION**

It is recommended that Regional Council:

Authorize the purchase of a replacement aeration mixer gear box and motor from the Atlantic Region equipment distributor, Marathon Fluid Systems at a cost of \$69,928.00 plus net HST for a total project cost of \$72,325.83 with funding from Capital Account No. CSU00110, Wastewater Treatment Plants Upgrade as outlined in the Budget Implications section of this report.

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### **BACKGROUND**

The Mill Cove Water Pollution Control Plant provides a secondary level of treatment utilizing the Lotepro Unox process. High purity oxygen is introduced into four separate tanks where large mixers bring beneficial organisms in contact with the oxygen, giving them the ability to break down organic contaminants present in the wastewater. This process is essential to the proper operation of the Mill Cove treatment process. There is no built in redundancy in the Pureox system, if a mixer fails the quality of effluent could be severely compromised, resulting in odour production and potentially negative environmental impact on the Bedford Basin ecosystem.

The Unox process at Mill Cove consists of two process trains running in parallel, each train has two cells or tanks. The first cell of each train is equipped with a larger mixer than that of the second cell. Vibration analysis and technician observation of one of the small mixers indicates that it would be prudent to have a spare small unit on site. It is intended that a request for a spare large unit will be included in the 2005/2006 Capital Budget process.

The existing mixers were installed during the most recent expansion which was completed in 1996 and have been in constant operation. A comprehensive preventive and predictive maintenance program is in place, however, these units have been running continuously for over eight years. In the event of a mixer failure a phase of the Pureox system would have to be shut down for an extended period of time (12-14 weeks). Having an identical spare unit on site would eliminate that down time and result in a consistent quality effluent.

#### **DISCUSSION**

Purchase of replacement aeration mixer gear box and motor for the Mill Cove Treatment Plant involves a sole source vendor, which necessitates Council approval. The Halifax Regional Municipality requested a quotation from Marathon Fluid Systems for a replacement aeration mixer gear box and motor for use at the Mill Cove Treatment Plant.

The total cost of the equipment is as follows:

Name of Company

Marathon Fluid Systems

Bid (Net HST Included))

\$72,325.83

This equipment is being purchased under the "sole source purchase section 7.8.1" of the Procurement Policy which states:

"Where the compatibility of a purchase with existing equipment, facilities or service is a paramount consideration and the purchase must be made from a single source."

# **BUDGET IMPLICATIONS**

**Budget Summary:** 

Account CSU00110 - Wastewater Treatment Plants Upgrade.

Cumulative Unspent Budget

\$496,886.86

Less: Quotation

\$ 72,325.83

\$424,561.03

The budget availability has been approved by Financial Services.

# 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**

There is no a recommended alternative.

# **ATTACHMENTS**

None

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