

**STAFF REPORT:      Engineering & Public Works Department**



**REPORT TO:**            Engineering & Public Works Committee  
**MEETING DATE:**      June 10, 2008  
**REPORT NO.:**          EPW.08.67  
**SUBJECT:**             Award of Tender - Thornbury Water Treatment Plant Pall Membrane Filter System  
**PREPARED BY:**        John Caswell, Manager of Water and Wastewater Services

**A.    Recommendations**

THAT Council approve the award of the Thornbury Water Treatment Plant Pall Membrane Filter System (TBM-2008-01), to \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ ; and

THAT the Mayor and the Clerk be authorized to execute the Contract Documents for TBM-2008-01.

**B.    Background**

The upgrading of the Thornbury Water Treatment Plant is required to replace the existing conventional filters with Pall membrane units to bring the plant up to the “firm capacity” of 13,536 m<sup>3</sup>/day. The Town was experiencing problems operating the filters during periods of high turbidity.

In 2005 the Town undertook a feasibility study to assess the current capacity of the existing plant and identify potential options for extending the life of the existing facility as well as potential costs. The recommended solution was to remove the four conventional filters and replace them with Pall Membrane filtration. Of the three (3) membrane treatment systems reviewed, the Pall filter system was determined to be the best overall fit for the Town of The Blue Mountains.

The diesel Genset will also be replaced to ensure adequate standby power generation is available during an emergency, and there will also be 200 meters of 400mm (16”) section of watermain placed on Bay Street and Peel Street to enhance fire flows in the Lora Bay service area.

An RFP process was held to secure a consultant for the detailed engineering and construction supervision of this project and Henderson Paddon of The Blue Mountains was selected. The Pall Corporation and the Town signed a Novation agreement for supply of the membrane equipment. This will require the successful contractor to assume responsibility for all of the contract and associated warranties including the Pall Membrane equipment.

An application was submitted to the Ministry of Environment for a Certificate of Approval and was received on April 24, 2008. An open tender was published in various mediums and closed on June 6, 2008.

It is anticipated the Contractor will order the Pall equipment immediately and start construction this summer. The equipment is expected to be installed by the end of 2008 with completion of the project in early 2009.

### **C. The Blue Mountains' Strategic Plan**

This Report furthers the Town's Strategic Plan by addressing Goal #2 "Addressing the Town's municipal infrastructure needs".

### **D. Environmental Impacts**

The installation of a new diesel generator and more efficient motors on pumps should have a lowering impact on energy consumption and greenhouse gas production. The membrane filtration process will not require the use of Aluminum Sulphate and therefore there will be less chemical use in the production of potable water and wasted in the backwash sludge.

With the additional capacity there will be opportunity to have more residents connect to the Municipal system that are currently using wells and therefore there will be less of an impact on groundwater aquifers.

### **E. Budget Impact**

The 2008 budget accounts for \$4.6 million in expenditures for the Thornbury water treatment upgrade. This is made up from the combination of \$4.1 million for the Pall Membrane upgrades and \$500,000 for Genset replacement.

This budget document can be found under Tab W1 in the water budget documents. The Peel Street Watermain replacement has a budget of \$140,000 and can be found under Tab W7.

Tender TMB – 2008 – 01 from (construction company) for a total of \$----- is being recommended for approval. As this tender award falls within the previously approved overall budget of \$4,740,000 there will be no adverse financial implications.

### **F. Attached**

1. Letter of Recommendation from Henderson Paddon & Associates Ltd., dated  
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Respectfully submitted,

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John Caswell  
Manager of Water and Wastewater Services

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Reg Russwurm  
Director of Engineering and Public Works