

**STAFF REPORT:           ENGINEERING AND PUBLIC WORKS DEPARTMENT**

**REPORT TO:**           **Infrastructure and Recreation Committee**  
**MEETING DATE:**   **September 13, 2011**  
**REPORT NO.:**       **EPW.11.079**  
**SUBJECT:**           **Comprehensive Leak Detection Survey of  
the Town's Water Distribution System-  
Update**

**PREPARED BY:**     **John Caswell – Manager of Water and  
Wastewater Services**

**A. Recommendations**

THAT Council receive Report EPW.11.079 entitled "Comprehensive Leak Detection Survey of the Town's Water Distribution System-Update" for their information.

**B. Background**

Accurately tracking water usage within the Municipality is essential for a variety of reasons. It provides the Town with a better understanding of supply and demand trends so that the Town can ensure an adequate supply of water is always available. Tracking water usage also has the ability to identify areas where water conservation initiatives could be applied. It is also financially responsible to be able to account for water usage because there is a substantial cost associated with the production of safe drinking water.

Report EPW.11.079 has been prepared to ensure Council is aware that Staff is continuing to pursue unaccounted for water and to provide an update on a recent undertaking.

In an effort to identify sources of water loss within the Town's water distribution system, the Town issued a Request for Quotation (RFQ) for the completion of a comprehensive leak detection survey on approximately 120 kilometres of watermain throughout the Municipality using acoustic and correlation leak detecting equipment. This type of hydrophonic leak detection involves the use of specialized equipment to listen for leaks in piping systems.

After a competitive bid process the Town awarded the work to Veritec Consulting Inc. The leak detection survey was completed in July, and was performed on the Town's entire water distribution system over roughly 2 weeks. Upon completion of the leak detection survey no recoverable leaks were found. As this result was unanticipated, a meeting to discuss the results of the survey was held between Veritec's Project Manager and Town Water Staff. During this meeting, it was explained that the technician completing the survey recalibrated his equipment half way through the survey to ensure that his readings were accurate, and as such Veritec is confident in their findings.

The results from this survey is “good news” regarding the overall water distribution system, however Staff need to remain diligent in tracking and surveying water use. Although the Town’s comprehensive leak detection survey did not identify any significant sources of water loss, Town Staff will continue to investigate other potential sources of water loss in an attempt to further reduce the Municipality’s water loss.

**C. The Blue Mountains’ Strategic Plan**

Completing this project assists with the Town’s Strategic Plan Goal #2” Addressing the Town’s Municipal Infrastructure needs”.

**D. Environmental Impacts**

Providing safe, clean drinking water is one of the most important essential services the Town provides. However, it is also important for the Town to ensure that chlorinated drinking water does not enter the natural environment. Ensuring that treated water is delivered to its intended recipients also reduces the amount of hydro and other resources necessary to treat water.

**E. Financial Impact**

The 2011 Water Capital Budget contained \$20,000 to cover the cost of the Leak Detection Survey. The cost of the Leak Detection Survey was \$9,900 excluding HST. Therefore, this project was under budget by \$10,100.

<b>BUDGET</b>	<b>AMOUNT</b>
Available Capital Budget	\$20,000
Leak Detection Survey Cost	\$9,900
Unexpended Budget	\$10,100

In the future, Staff would like to purchase leak detection equipment in the form of acoustic listening devices for internal use. This equipment would assist Staff in identifying leaks and also locating leaks after they have been determined in a specific area in the water system. The purchase of this equipment will be proposed for the 2014 Capital Budget.

**F. Attachments**

None.

Respectfully submitted,

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