

2

WATER USE EFFICIENCY

The Transportation and Works Committee recommends the adoption of the recommendation contained in the following report, October 14, 2005, from the Commissioner of Transportation and Works:

1. RECOMMENDATION

It is recommended that:

1. Staff be authorized to assign the purchase orders relating to the Water Efficiency Public Education, Youth Education, Summer Water Use Reduction Programs, Oak Ridges Moraine Conservation Plan and York Children's Water Festival to Resource Management Strategies Inc.

2. PURPOSE

The purpose of this report is to obtain authorization to assign the purchase orders relating to the Water Efficiency Public Education, Youth Education, Summer Water Use Reduction Programs, Oak Ridges Moraine Conservation Plan and York Children's Water Festival to Resource Management Strategies Inc. The assignment will ensure continuity of the award winning water efficiency programs under the Water for Tomorrow brand name.

3. BACKGROUND

York Region has recognized water use efficiency to be an important part of the long term water supply solution since completion of the Water Supply Master Plan in 1996. The study, subsequently updated in March 2004, provides an objective to develop and implement a comprehensive long-term strategy, which includes water efficiency, to serve the Region's water supply needs to 2036.

Water for Tomorrow, York Region's water use efficiency plan was a major outcome of the original Water Supply Master Plan.

The program's Scope of Work, which has served as a Water Efficiency Master Plan was approved by Regional Council in April 1998 and includes six distinctive activities:

- Residential/Commercial Retrofit Program.
- Industrial/Institutional Audit Program.
- Leakage Reduction Program.
- Public Education.

- Youth Education.
- Maintenance.

Water for Tomorrow is well known to residents and businesses of York Region. Program technicians have visited over 118,000 homes, 10,400 apartments, 180 schools and 14,200 businesses. During the visits over 245,000 water saving toilet flappers and 106,000 low flow showerheads were installed. Approximately 1,800 km of water-main has been tested in all of the local area municipalities. Sixty industrial/institutional water usage audits have been completed resulting in some cases in major capital projects resulting in significant water savings.

Technology can achieve major water savings but education is necessary to meet the long term objectives. Annually, Water for Tomorrow has been represented at fairs, home shows, environment days and community events across the region. Twice per year bulletins distributed through the water bills and community newspaper and television advertising have all contributed to the success of the water efficiency education program.

Youth education has been a major focus of Water for Tomorrow. The award winning Grade seven curriculum module developed and implemented by the Water for Tomorrow project team has been delivered to over 50,000 students in York Region and continues to be extremely popular with teachers and students alike.

The project team views Water for Tomorrow in the same manner as constructing and operating a new water treatment plant. Maintenance is a necessity if you wish to sustain the water savings in the long term. Ongoing maintenance assistance is provided on the water efficiency products that have been installed during the course of the program.

The scope of the Water for Tomorrow program has been enhanced over the last few years with the addition of the effective Summer Water Use Reduction Program and the very popular annual York Children's Water Festival.

The largest demands on a water supply system occur during the summer when outdoor uses can increase significantly. Water for Tomorrow's goal is to get residents of York Region to reduce outdoor water use by encouraging water efficient garden and landscaping. Over 5,000 residents have received a free water efficient landscape audit and the opportunity to learn about water wise gardening techniques from the many water efficient garden demonstrations.

Over 22,000 Grade four and five students have learned about water in the out-of-doors at the annual York Children's Water Festival where they learn by participating in over 40 curriculum based activities about water and the environment.

Water for Tomorrow has demonstrated that water efficiency is an effective component of York Region's long term water supply strategy. Overall the program is saving

approximately 22.4 million litres of water per day. As one of the four components identified in the Region's Water Supply Master Plan, water-use efficiency represents the lowest cost source of water. The program has been recognized for excellence by numerous organizations including the Ontario Water Works Association and the World Water Forum in Kyoto, Japan.

4. ANALYSIS AND OPTIONS

4.1 Program Need

It is important to continue and build upon the success of the Program. Excessive demands continue to put pressure on the water supply system. This is especially true in the summer months. Continuation of water use efficiency is recommended for the following reasons:

1. The cost of water use efficiency measures represents the cheapest "source" of water supply for the Region at about 25% of the cost of new surface water supplies.
2. Water use efficiency measures help to defer the need for major capital expenditures and can assist in reducing supply allocations for local municipalities.
3. Water-use efficiency can significantly help manage the summer drought periods and help alleviate outdoor water restrictions and bans.
4. Key review and approval agencies, such as the Ministry of Environment and the Ministry of Natural Resources, are reluctant to support new capital projects without a demonstrated commitment to water use efficiency by the proponent.
5. Water use efficiency is a required component of Watershed Plans required under the Oak Ridges Moraine Conservation Plan.
6. Water-use efficiency is a required component of the Ministry's recently revised Permit to Take Water Program.

4.2 Continued Program Management and Delivery

United Utilities Canada Limited (UUCL) has indicated that it will be gradually exiting this market sector over the next year. Through a management buy-out, the water efficiency group has become a separate business entity under the name of Resource Management Strategies Inc. The same key personnel associated with the York Region water efficiency programs, including the project manager who initially developed and has managed the Water for Tomorrow program for the last seven years, have joined Resource Management Strategies Inc.

There is less than one year remaining on the Water Use Efficiency Consulting Agreement with UUCL dated December 11, 1997. It is recommended that UUCL complete the requirements of this agreement to the end of its term.

In addition to the Consulting Agreement above, York Region has outstanding blanket purchase orders with UUCL for the provision of services for the water use efficiency public education, youth education, summer water use reduction, flapper/ showerhead

maintenance programs, York Children's Water Festival and the Oak Ridges Moraine Conservation Plan. The blanket purchase orders are effective until December 31, 2008. To ensure program continuity, cost control and effectiveness, it is recommended that the above mention blanket purchase orders be assigned to RMSI.

5. FINANCIAL IMPLICATIONS

The present value unit cost to expand water and wastewater supply infrastructure in York Region, Peel Region, Durham Region and the City of Toronto ranges from \$1.12 to \$5.47 per litre per day. Water provided through water efficiency measures cost from \$0.44 to \$0.90 per litre per day. Continued implementation and future planning of water use efficiency activities will ensure that the Region continues to provide the most cost effective water supply options to its residents

6. LOCAL MUNICIPAL IMPACT

Continued implementation and future planning of water use efficiency activities will ensure the availability of a secured, cost effective supply of water to the local municipalities assisting in meeting future demands caused by growth.

7. CONCLUSION

Water for Tomorrow, York Region's water efficiency program is currently saving 22.4 MLD. Ongoing education programs over the next three years will assist in not only sustaining the water savings but increasing them.

The Senior Management Group has reviewed this report.