

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

**REPORT TO:** Infrastructure and Recreation Committee  
**MEETING DATE:** November 8<sup>th</sup> 2011  
**REPORT NO.:** EPW.11.063  
**SUBJECT:** Update on Water Consumption Target of 15% Reduction Below Year 2000 Levels  
**PREPARED BY:** Meg Boyd, Compliance & Efficiency Coordinator

**A. Recommendation**

THAT Council receives Report EPW.11.063 entitled "Update on Water Consumption Target of 15% Reduction Below Year 2000 Levels" for their information.

**B. Background**

In 2007, the Town prepared a Water Efficiency/Conservation Summary which provided a preliminary review of the water usage trends within the Municipality. At that time, the average daily usage was 0.668 m<sup>3</sup>/unit/d. The plan summarized the water conditions at that time as well as presented recommendations to assist the Municipality in achieving its 2015 conservation target of 15% reduction in total water usage per user unit below year 2000 water consumption levels (2000: 0.672 m<sup>3</sup>/unit/d, 2015 target: 0.571 m<sup>3</sup>/unit/d). The purpose of Report EPW.11.063 is to provide Council with an update on the Town's progress in achieving its conservation target.

The conservation target is 0.571 m<sup>3</sup>/unit/d refers to an equivalent unit that combines single residential connections with a weighted number of units depending on the type of industrial, commercial or institutional user. An evaluation of the 2010 water consumption levels indicates that the Town achieved 0.557 m<sup>3</sup>/unit/d which surpasses its 2015 conservation target five years earlier than expected.

**Factors Contributing to the Success in Reducing Water Consumption**

- 1) In 2004, the Town implemented a Water Meter Program and by 2008, the Town was fully metered. Meters measure the amount of water consumed and therefore provide an effective way for consumers to understand their use, which can lead to a significant decline in consumption because it is a true user pay system. The Town's tiered water rate structure is such that users who consume more than 30 cubic meters per month are subject to a higher rate than those who consume less than 30 cubic meters per month.
- 2) In 2008, the Town passed By-Law 2008-02 which contains a section that limits the outdoor use of water to specified days and times. The By-law further allows the Director of Engineering and Public Works to restrict outdoor water use altogether by imposing a Stage 3 Restriction during which time no outdoor use of water is permitted.

- 3) In 2008, the Town purchased 100 rain barrels for re-sale to residents. The use of rain barrels reduces the reliance on municipal water for outdoor watering and provides a source of water that is separate from the municipal system. A small quantity of rain barrels are still available for purchase at the Town's landfill site.
- 4) In 2009, Council approved the implementation of a toilet rebate program whereby qualified residents were given a \$50 credit on their water account for the purchase of a low-flow toilet. As toilets are deemed to be one of the highest household water users, the replacement of larger than 6 litre toilets with more efficient models presents a significant water conservation opportunity. The toilet rebate program ran in 2010 and again 2011. It is likely that the majority of residents wishing to exchange their 13 litre toilets for more efficient models have already participated in the toilet rebate program as indicated in Figure 1, therefore the need to run the program again in 2012 is no longer warranted. New homes constructed after 1996 are required to install 6 litre or less toilets under the Ontario Building Code and therefore these residential units are not eligible for rebates. Staff plan to investigate new water saving technologies and as a result, the toilet rebate initiative has not been included in the 2012 Capital Operating Program.

The following chart details the number of toilet rebates issued since the program began.

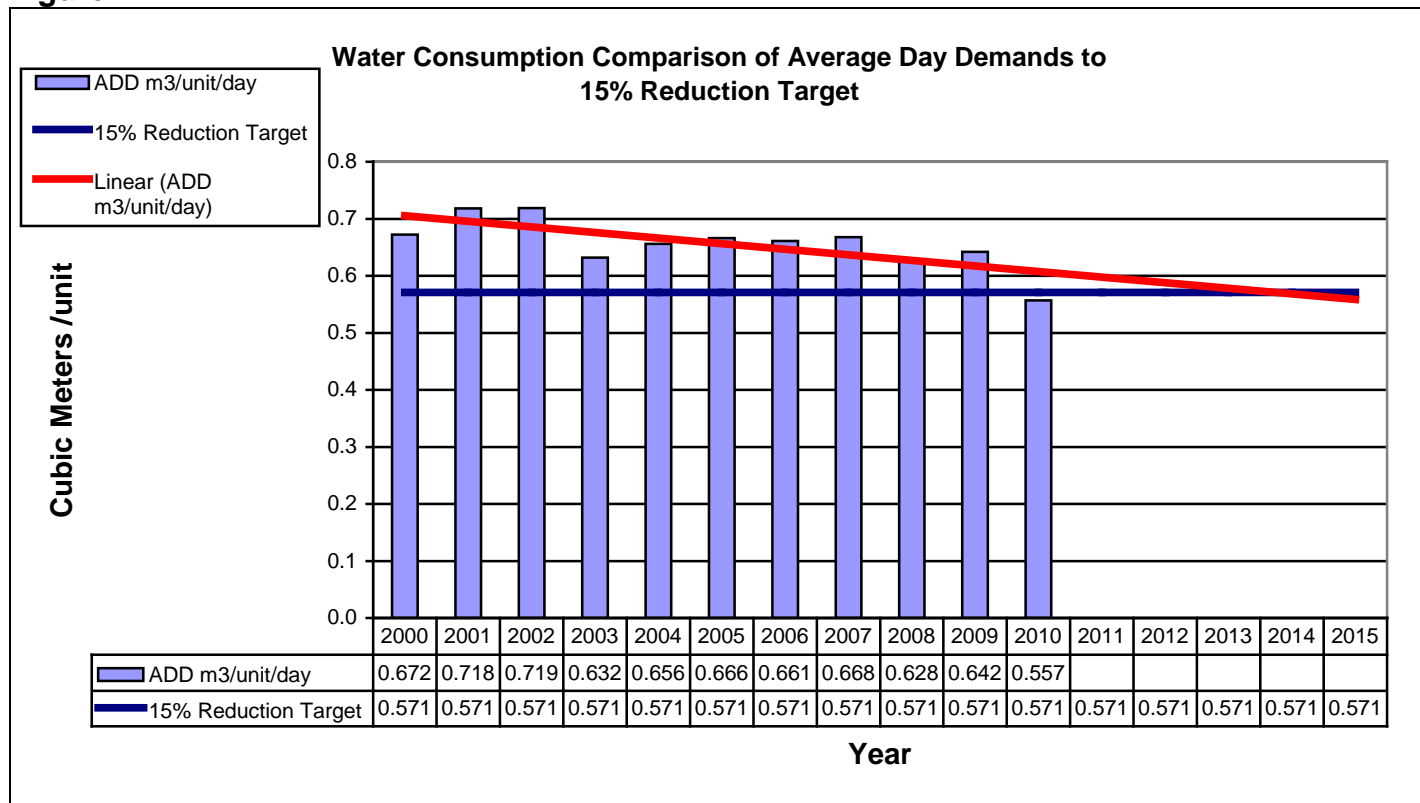
**Figure 1**

<b>Year</b>	<b>Number of Rebates Issued</b>
2009	100 of 100 rebates offered
2010	89 of 150 rebates offered
2011 to current	73 of 150 rebates offered

**Water Consumption Comparison – Average Day Demand to 15% Reduction Target**

Figure 2 presents a comparison between Average Day Demand (ADD) and the 15% Reduction Target. As displayed in Figure 2, water trends indicate that ADD consumption is on the decline and the Town is on track to consistently meet the water consumption target of 0.571m<sup>3</sup>/unit/day by 2015. While the reduction target has been reached in 2010, Staff will continue to monitor and enhance conservation efforts to ensure this trend continues to 2015 and beyond.

**Figure 2**



ADD – Average Day Demand

**Next Steps**

Staff will continue to track consumption levels and explore new water saving technologies for residents and businesses, such as low flow showerheads.

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

This Report furthers the Town Strategic Plan Goal #6 “providing a strong well managed municipal government”.

**D. Environmental Impacts**

Water is one of our most important natural resources and an adequate supply is an essential component of all healthy ecosystems. Water conservation initiatives are crucial to ensuring an adequate water supply is available for the Town's natural environmental and future consumers. A decline in water consumption leads to a reduction in pump and lift motor operation, thereby reducing energy requirements and the associated greenhouse gas emissions.

**E. Financial Impact**

None

**F. In Consultation With**

None

**G. Attached**

None

Respectfully submitted

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