

**STAFF REPORT:      Engineering and Public Works**



**REPORT TO:**            Infrastructure and Recreation Committee  
**MEETING DATE:**    May 26, 2009  
**REPORT NO.:**        EPW.09.021  
**SUBJECT:**            Utility Conservation Methods Implemented  
                                 within the Wastewater Group  
**PREPARED BY:**     Maurice Dempster, Wastewater Operator

**A. Recommendations**

THAT Council receive report EPW.09.021 entitled "Utility Conservation Methods Implemented within the Wastewater Group" for their information.

**B. Background**

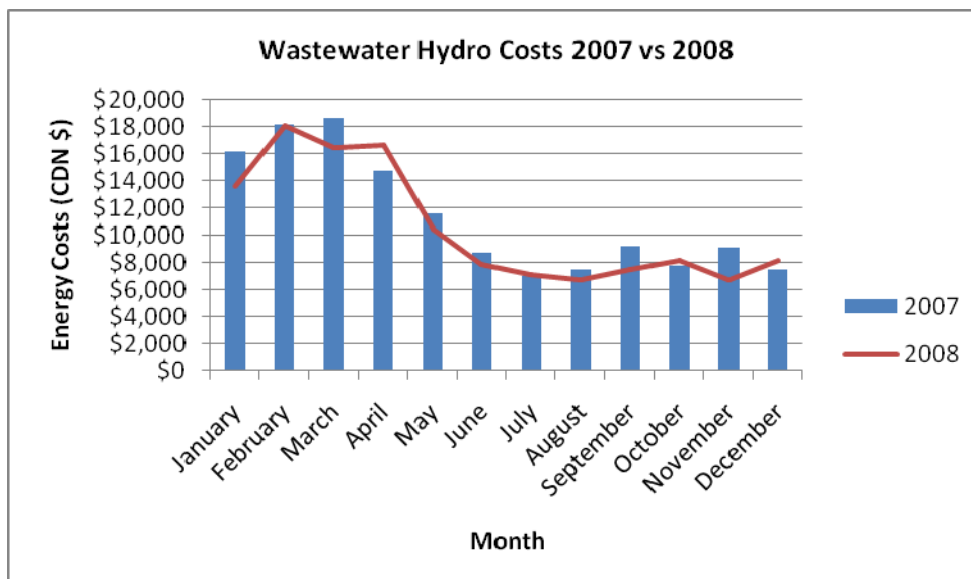
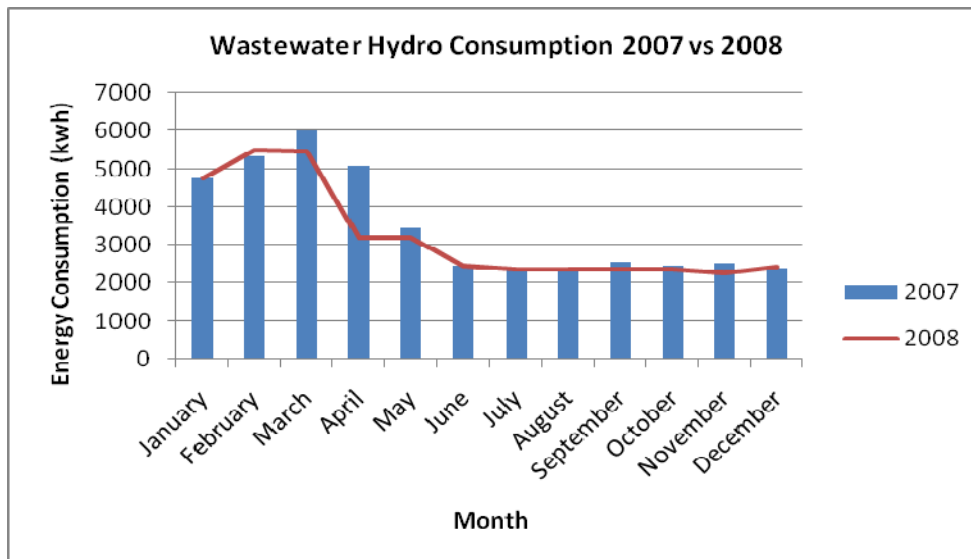
Staff from the Wastewater Group have implemented various measures to assist in reducing the hydro and municipal water consumption.

**Hydro Usage at Craigeith Wastewater Treatment Plant**

The process of replacing old drives and motors with newer, more efficient and cost effective units combined with different operating strategies has been successful in reducing the hydro consumption at this Facility. Staff are investigating an improved style of aeration for four existing cells which will increase the efficiency of each cell by as much as 20% per cell. Reduced air requirements are now enabling the use of only two blowers this fall and winter. One complete side at Craigeith remains out of service. One upgraded aeration system was installed in 2008 by Plant staff and the remaining three will be completed in 2009.

**Hydro Usage**

<b>2007</b>			<b>2008</b>		
Month	Consumption kwh	Billing	Month	Consumption kwh	Billing
January	4775	\$16,147.52	January	4748	\$13,568.01
February	5332	\$18,220.97	February	5500	\$18,079.22
March	6010	\$18,620.69	March	5483	\$16,445.22
April	5093	\$14,752.10	April	3196	\$16,628.49
May	3466	\$11,616.51	May	3196	\$10,471.84
June	2472	\$8,776.14	June	2467	\$7,844.49
July	2396	\$7,012.00	July	2353	\$7,120.56
August	2394	\$7,466.48	August	2365	\$6,706.38
September	2546	\$9,252.35	September	2377	\$7,446.86
October	2446	\$7,787.23	October	2352	\$8,195.57
November	2516	\$9,102.42	November	2265	\$6,722.86
December	2406	\$7,518.08	December	2419	\$8,122.56
<b>TOTAL</b>	<b>41,852</b>	<b>\$136,272.49</b>	<b>TOTAL</b>	<b>35,525</b>	<b>\$127,352.06</b>

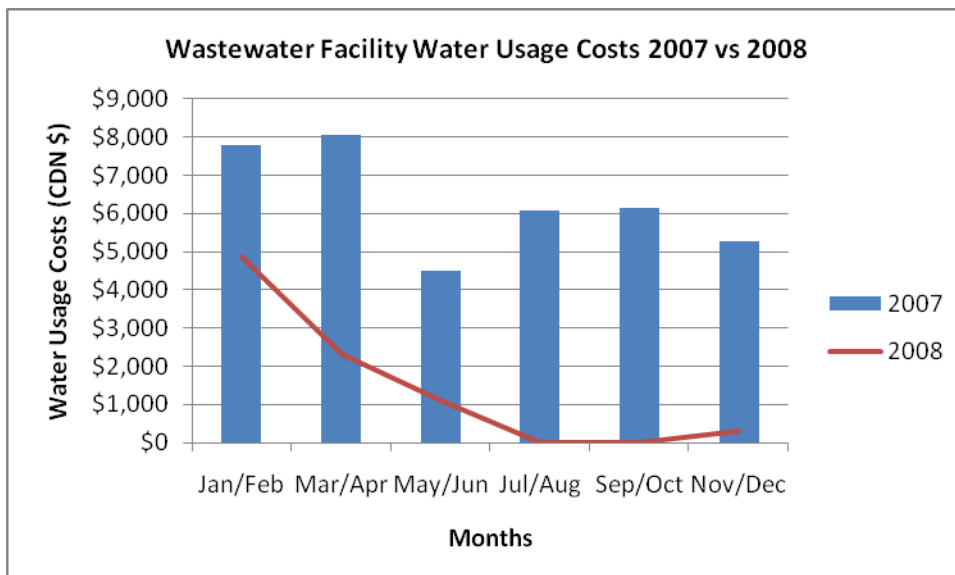
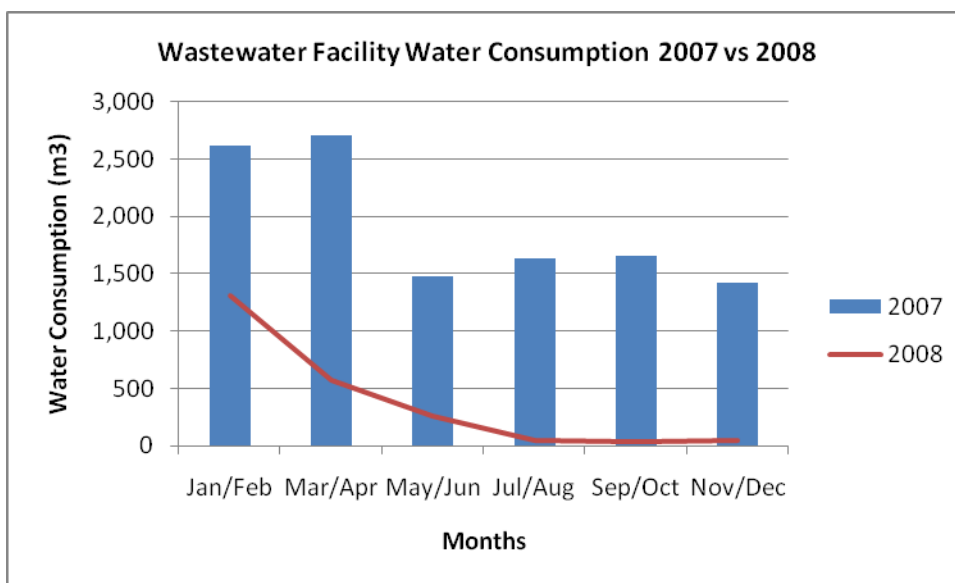


**Water at Craileith Wastewater Treatment Plant**

Water usage at this Facility in January and February 2007 was 2,620 m<sup>3</sup>. Consumption during this same period in 2008 was 1,307 m<sup>3</sup>. Investigation into reclaiming effluent water was initiated and major changes were made by plant staff to reduce potable water consumption. Some examples include pump seal flushing, and delivery aid for aluminum sulphate. Due to these measures, the water consumption for the same time period in 2008 has been reduced 195%. Since this time, more effluent has been reclaimed which will further reduce the water usage.

**Water Consumption**

2007			2008		
Month	Consumption m <sup>3</sup>	Billing	Month	Consumption m <sup>3</sup>	Billing
January/February	2,620	\$7,782.58	January/February	1,307	\$4,880.69
March/April	2,714	\$8,051.33	March/April	563	\$2,333.96
May/June	1,473	\$4,503.31	May/June	256	\$1,105.93
July/August	1,631	\$6,063.29	July/August	43	\$2,76.41
September/October	1,657	\$6,158.19	September/October	31	\$2,35.61
November/December	1,417	\$5,282.19	November/December	46	\$296.36
<b>TOTAL</b>	<b>11,512</b>	<b>\$37,840.89</b>	<b>TOTAL</b>	<b>2,246</b>	<b>\$9,128.96</b>



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

This Report furthers the Town's Strategic Plan Goal # 6 "Providing a strong well managed municipal government."

### **D. Budget Impact**

Cost savings have been realized in both hydro and water consumption at the Craigeith Wastewater Treatment Plant. Staff anticipates the savings to continue in 2009.

### **E. Environmental Impacts**

Reducing the Town's hydro consumption will conserve natural resources and reduce air pollution by lowering both the amount of resources required to produce energy and the harmful by-products associated with energy production. Reducing the Town's water consumption will help to protect valuable drinking water supplies and reduce the need for additional water treatment. Town hydro conservation will also help to further the Town's sustainability goals.

### **F. Attached**

Respectfully submitted,

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Maurice Dempster  
Wastewater Operator

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Reg Russwurm  
Director, Engineering and Public Works