

Water Production & Metered Consumption History 2006 - 2014

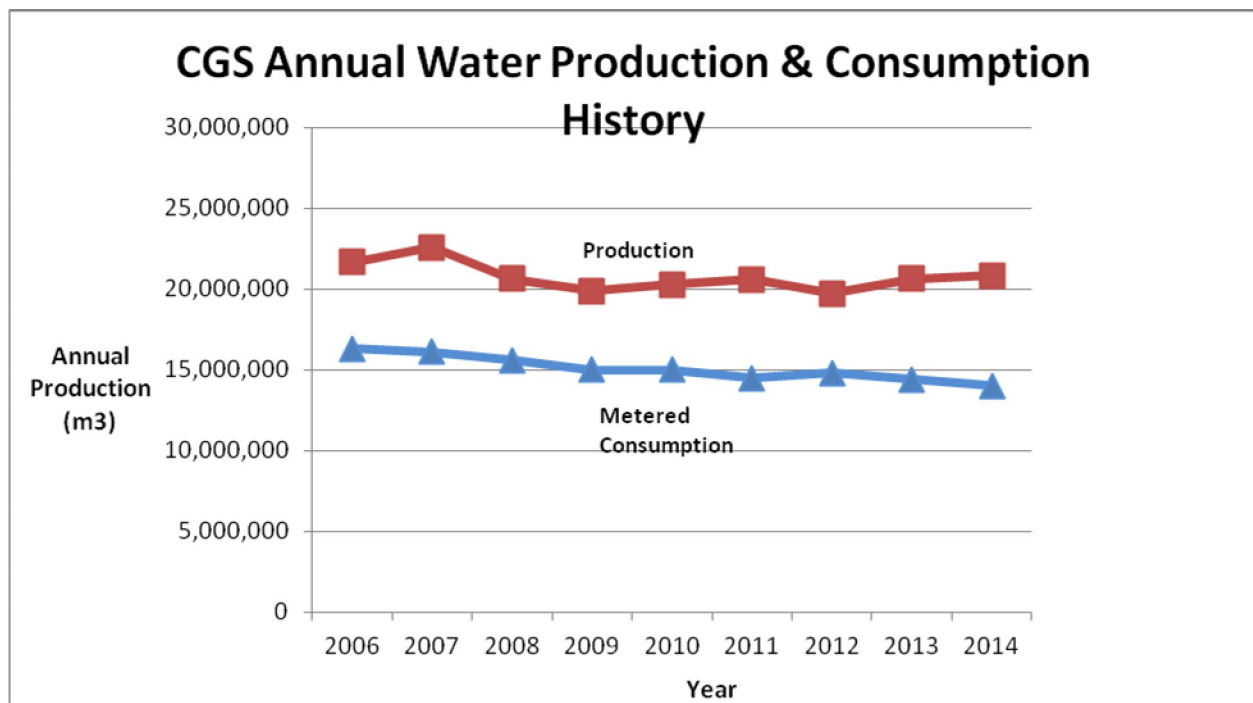
Background

The purpose of this report is to address a budget 'parking lot' request to update Council on the historical pattern of water production and metered consumption recorded in CGS' 8 potable water systems.

Water loss is a common problem observed in most public water supply systems in Ontario. Despite the prevalence of the problem it is desirable to reduce the volume of loss because the costs for variable resources such as energy and chemicals used to produce the water still need to be covered by the portion of the metered consumption.

Production & Consumption Trends

The trends for the period 2006 – 2014 are depicted in the graph below:



The data indicates that during this period the values range from a low of 25% to a high of 33% with an average difference between production and metered consumption of 27%. Note that the production values shown do not include production from the Vermilion Water Treatment Plant that supplies the CGS Vermilion System serving Walden, Lively, Copper Cliff, Naughton, & Whitefish. Inclusion of these figures would likely further increase the percentage of gap.

Possible Causes:

The difference between production & consumption can be influenced by a many factors including:

- Age & condition of linear public infrastructure – The average age of CGS infrastructure is 48 years and as infrastructure ages more resources including flushing water are required for maintenance activities such as flushing hydrants to maintain compliance with regulations & quality parameters. Also, leaks and water main breaks tend to become more frequent occurrences as systems age.
- Age & condition of private service connections – Aging private infrastructure is also more prone to leaks and losses occur when leaks occur before the water is metered;
- Running to prevent freezing;
- Fire practice and fire fighting;
- Unauthorized use.

Loss Control:

CGS has instituted a number of loss control programs over recent years to reduce the difference between production and consumption. For example, annual leak detection programs resulted in detecting and quickly repairing many system leaks.

Reducing the gap between production and consumption is an ongoing priority for CGS Water & Wastewater Services and staff plan continued loss reduction programs in the future. Ultimately reinvestment in infrastructure renewal will be the key tool in making significant long term and sustained gains in loss control.