
CITY OF KELOWNA
MEMORANDUM

Date: June 4, 2004
File No.: 5600-08
To: City Manager
From: Water Manager
Subject: 2004 Water Conservation Program

RECOMMENDATION:

THAT Council receive the 2004 Water Conservation and Public Education Program for the City of Kelowna Water Utility for information;

AND THAT Council receive a verbal report from the Kelowna Joint Water Committee on water conservation within the City of Kelowna.

BACKGROUND:

Since 1996 the City of Kelowna water utility has delivered a water conservation and public education program designed to reduce overall water consumption within its service area. Annual reductions of approximately 20% have been achieved and sustained since that time in spite of growth and are a direct result of a universal metering, consumption based rate structures and education programs designed to encourage customers to use water wisely. Reduced consumption has also lead to modifications in water system design requirements as applied to system expansion and the deferral of capital improvements that would otherwise have to be built within the water utility 20 year planning horizon. As a result the 20 year capital program has been adjusted from \$47 million to \$29 million as a direct result of conservation measures.

Kelowna as a community however continues to be one of the highest users of water in the province and in the country. Although strides have been made to reduce consumption the Kelowna Water Utility recognizes the importance of a continued effort to further reduce overall consumption and to ensure emphasis is placed on the importance of being a good steward of Okanagan Lake which has a limited supply.

The 2004 Water Smart Program is attached to this report. Pilot incentive projects are underway to finalize best approaches to achieving reductions in peak demand. These will then be considered for implementation on a larger scale in 2005 once pilot work is complete and results are reviewed. Additional program components are shown on the attachment which includes turf and soil amendment programs, irrigation start time strategies to reduce peak demand, partnerships with the Parks Department and customer recognition programs.

To date the best results for our Utility have been achieved by adopting a social marketing strategy designed to have program staff working closely with customers' right in their neighborhood, to provide incentives and education. By offering customers the right mix of cost shared incentives, education and consumption based water rates, further reduction goals will be achieved. Modifications to the water rate structure are being contemplated for later this year which would see customers paying more for water as a part of an increasing block rate structure

being proposed. This rate is effective in motivating high use customers to strive for average or moderate use by charging higher unit rates based on various ranges of consumption.

The most recent information received from the MWLAP is that Okanagan Lake will likely not recover to normal levels this year. Even though the Kelowna Water Utility intakes are well positioned deep in the lake the utility is very cognisant of the importance of conserving supply that is drawn from the lake to its distribution system. The utility is also governed by licensing requirements that dictate the amount of water that can be drawn from the lake on an annual basis. Records show that in 2003 the amount of water delivered to our customers when compared to 1998, which was a very similar year in terms of weather patterns, was actually 20 % less in spite of significant customer growth to the system.

At this time the Kelowna Water Utility is not considering the implementation of watering restrictions and will continue to work on achieving reductions through its aggressive public education and incentive programs as well as consumption based rate structures. Water conservation will continue to be an "all year round" message within the utility and not be limited to seasonal irrigation periods.

It's also important to note that almost all inside water use within the community in sewered areas which enters the sanitary sewer system is ultimately treated by the wastewater treatment plant to a high level of quality and then returned to Okanagan Lake

The approved annual budget for 2004 water conservation initiatives is \$195,000.

The Utility is an active member of the Kelowna Joint Water Committee (KJWC) which represents the 5 major water purveyors within the City of Kelowna service area. Although each District has a different "mix" of customers (agricultural vs. domestic or commercial) outside water use continues to drive peak demand which may result in supply shortages, additional stress on the distribution network to keep up with demand or a combination of both factors. Each District has therefore adopted an approach and level of effort related to conservation based on the individual challenges facing each. The KJWC meets on a regular basis to share ideas and to ensure similar messages and approaches to water conservation are applied whenever possible. Mr. Bruce Wilson, Chair of the KJWC, will give a verbal report on the activities of the KJWC on the measures being taken this year.

Don Degen
Water Manager

John Vos
Director of Works & Utilities

cc Director of Financial Services

SEVEN HIGHLIGHTS OF THE 2004 WATERSMART PROGRAM

1. **New Communication Materials**

- *Water & You*: highlighting everything we've learned about watering efficiently in Kelowna
- Web Site: Added a "rate calculator" that will

2. **Peak Demand: Soil Amendment Program**

- Topdressing 300 homes in an effort to reduce peak demand in July
- To follow through with education and irrigation system assessments

3. **Peak Hour: Voluntary Irrigation Timer Program**

- Attempting to reduce peak hour (5:00 a.m. – 6:00 a.m.) by requesting customers with automatic irrigation timers to voluntarily change their start times according to street address
- Providing assistance to those customers who do not know how to program their timers

4. **Irrigation/Landscape Assessments & Hwy 97**

- Continue to meet with homeowners to assessing irrigation system efficiency
- Targeting commercial customers along Hwy 97 who irrigate inefficiently

5. **Parks Department – Test Sites**

- Testing a variety of topdressings, fertilizers, and mowing schedules for watering efficiency
- Two sites: Library and Knowles Park

6. **Possible Inclining Block Rate**

- Informing customers that the Utility is considering an "inclining block" water rate
- Cost per cubic metre increases once a certain volume of water is passed

7. **Additional Efforts**

- School Program and Mind Grind Environmental Challenge (partnership with EECO Heroes)
- Go Natural Home Presentations (partnership with EECO Heroes)
- Participation at all major community events (partnership with EECO Heroes)
- Mayor's Award for Water Efficiency – residential and commercial
- Water Hog Campaign – cooperative effort between major Okanagan water purveyors