
CITY OF KELOWNA

MEMORANDUM

Date: January 18, 2006
File: 5600-08 Water Smart

To: City Manager

From: Water Drainage Manager

Subject: **2005 Water Smart Program Overview and 2006 Plan**

Recommendation:

THAT Council receive, as information, the 2005 Water Smart Program overview and the 2006 Water Smart Program Plan.

Background:

Since the installation of water meters in 1996 and the implementation of user pay water rates in 1998, the Water Utility has realized reductions in peak water demand on its system. The **Water Smart** public education program continues to play an important role in helping Kelowna residents and businesses reduce their water use. The success of the program to date has resulted in a 20% reduction in water consumption in spite of significant growth within the utility. This has allowed for the deferral of some large capital projects within the utility's 20 year plan. In addition public education and incentives have taken on a social marketing approach in recent years to allow for more direct interaction with our customers to reduce overall water use. The water utility has also implemented an inclining block rate structure designed to acknowledge customers that are responsible water users and penalize those customers that are considered heavy water users.

Over the past few years some primary outcomes have been observed:

- 1) Reductions in water use that have been achieved to date have "leveled off" and further reductions are still achievable
- 2) Although changes to an increasing block rate structure have been implemented many Kelowna residents continue to be some of the highest water users in the province.
- 3) The Kelowna water utility water rates are much lower than rates in similar communities. (Comparison attached)

The Water Utility's conservation program continues to use a balanced approach to reducing consumption to achieve further reductions through education, metering and rates. The highlights of the 2005 Water Smart Program outcomes along with the 2006 Program Plan are attached and will be presented for Council's information and consideration.

Don Degen,
Water Drainage Manager



Approved for inclusion:
John Vos,
Director of Works and Utilities



Highlights of 2005 Water Smart Program

- 1) New inclining-block residential water rates were introduced to encourage wasteful water users to reduce their consumption.
- 2) New multi-family water rates in 2005 sparked a great deal of interest in water conservation from Strata Councils and Strata Management companies. Prior to these new rates there was little interest in water conservation in the multi-family sector. In 2005 *Water Smart* staff carried out water audits at several large stratas; in one case they were able to reduce the water used for irrigation by 50%. Strata councils are already booking water audits for 2006.
- 3) The soil amendment program entered its 5th year, with results consistent with other years. Home owners that receive a top dressing of organic material can reduce the water used for irrigation an average 25%.
- 4) A “Door Knocker” and “Core Sampling” program was introduced in 2005. *Water Smart* summer students leave doorknockers at homes, inviting the resident to call for a free water audit service. The water audit service includes a check all indoor and outdoor water and energy use along with a “core sample” of the lawn. This sample is useful to show the homeowner what they are doing wrong – or right – in terms of their irrigation.

Highlights of 2006 Water Smart Program

Kelowna’s high residential water use comes down to two things: dirt and grass. Simply put, the soil in many areas of Kelowna is not conducive to grass. Compounding the problem is Kelowna’s climate, which is not conducive to the types of grass that are traditionally chosen. The 2006 *Water Smart* program addresses these issues head on.

- 1) *Drought Tolerant Grass Experiment*: We have 40 residential volunteers lined up to try a new blend of drought tolerant grass. This grass uses 75% less water than traditional turf. Emil Anderson Construction is partnering with the *Water Smart* program to try the new grass at new homes on Dilworth Mountain. The Parks Department is also on board and we are planning to try the grass on the south side of City Hall.
- 2) *Soil Amendment Program*: 279 residents participated in the 2005 cost-shared incentive program. The lawns are top-dressed with compost in the spring and the number of participants we can accept is limited by the weather. The program will be expanded in 2006 to include another round of top-dressing in the fall.
- 3) *Core Sampling Program*: *Water Smart* students will take core samples from the lawns of all the City’s highest water users. The sample will be left at the homeowner’s door along with notes about the grass blade, root, and soil conditions. The home owner will be encouraged to call *Water Smart* staff to schedule a water audit.
- 4) *Okaview Meter Test*: In 2005 we tested a new meter reading technology at selected homes in Crawford Estates. The technology allows us to produce a graph of a homeowner’s hourly, daily, weekly, and monthly water use, which in turn allows us to educate the home owner on when and where they can cut back. This new technology will be tested at up to 100 homes in the Okaview area in 2006.

- 5) *Miscellaneous*: Most of what we've described so far relates to reducing water used for irrigation. But the Water Smart program has numerous other initiatives occurring throughout the year. These include:
- Programs targeted to youth. Up to 50 in-class school presentations a year, along with the Environmental Mind Grind School Challenge
 - Participation at all major events, including the Mayor's Environmental Expo, Fat Cat's Children's Festival, Family Fun Day, etc
 - Go Natural seminars (in cooperation with the Regional District)
 - On going consultation with customers who receive high water bills
 - *Water Smart* web site and public education materials
 - Water Hog advertising promotion in cooperation with other valley water purveyors
- 6) *Water Rates*: The water utility continues to review its water rates. The new inclining block rate did have some impact on peak demand, but many of Kelowna's homeowners remain the highest water users in the country. Even with the higher rates introduced in 2005, Kelowna Water Utility rates remain considerably lower than most other major municipalities in British Columbia.

WATER RATES

Various water rates for single family dwellings in communities around BC

Richmond – 2006 Rates

Metered Rate: Minimum \$30 per quarter + \$0.7006/m³

Flat Rate: \$372.37 per year

Surrey – 2005 Rates

Metered Rate: Minimum \$20 per four month period + \$0.40/m³

Flat Rate: \$267.00 per year

Delta – 2005 Rates

Flat Rate: \$258.00 per year

Chilliwack – 2005 Rates

Metered Rate: \$14.48 per quarter + \$0.855 per 100 cubic feet (2.8 Cubic Meters)

Abbotsford – 2005 Rates

Metered Rate: \$0.58/m³

Langley – 2005 Rates

Metered Rates

Water: \$4.16 per month + \$0.74/m³

West Van – Proposed 2006 Rates

Metered Rates

Water: \$34.00 per quarter + \$0.38/m³ up to 100 m³. Consumption in excess of 100 m³, \$0.55/m³

Port Coquitlam – 2005 Rates

Flat Rate: \$179.42

Port Moody – 2005 Rates

Flat Rate: \$182

City of Coquitlam – 2005 Rates

Flat Rate: \$189.00

City of Kelowna Residential Water Rate

\$6.23/month	0 – 30m ³ - \$0.2250/m ³
	30-125 m ³ - \$0.32/m ³
	>125m ³ - \$0.42/m ³
