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**CITY OF KELOWNA**

**MEMORANDUM**

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**File:** 1826-02 Water Rates & 5600-08 Water Smart & Bylaw 9554

**Date:** February 1, 2006

**To:** City Manager

**From:** Water Drainage Manager

**Subject:** **Water Use Reduction Plan and 2006 Water Rates**

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**Recommendation:**

THAT Council approve a plan to reduce overall water consumption by a further 10% by 2010 and an additional 5% by 2012;

AND THAT Council approve an overall rate increase of 5.1% to increase revenues and assist in achieving this reduction target within the following customer groups:

- **Residential Revenue Increase of: 5.0% (including a new rate block)**
- **Multi-Family Revenue Increase of: 5.8%**
- **Commercial Revenue Increase of: 4.9%**
- **Fire Line Revenue Increase of: 4.9%**
- **Agricultural Flat Rate Increase to \$48.00 per acre/year and Irrigation Flat Rate Increase to \$110.00 per acre/year;**

AND THAT Council approve the 2006 water rates to be effective with the first billing cycle in April, 2006;

AND FURTHER THAT the necessary bylaw (No. 9554) be advanced for reading consideration by Council.

**Background:**

Council recently received an information report on the city's Water Smart Program which confirmed a 20% reduction in overall water consumption since the program began almost 10 years ago. This reduction is a result of metering, extensive public education and modifications to the utility water rate structure. During the initial phases of the program a long term reduction target of 35 % was set for the utility recognizing that this target was achievable and would provide the utility with the ability to defer significant capital cost while preserving the valuable water resource. It was also recognized that achieving this overall reduction would take time. The approach adopted

by council at the inception of the program was to ensure that for the first number of years the focus would be on customer education, awareness and providing incentives to change behavior to reduce consumption. Secondary are modifications to water rate structures to also help facilitate change in water use habits. The City of Kelowna Water Smart Program continues to be recognized nationally for its innovative approaches to education, incentives and social marketing, however when comparing water rates with other communities that have conservation programs more emphasis must be placed on the cost of water to assist in achieving reduction targets (table attached).

Consumption data now confirms that in the first 6- 8 years of the program reductions of 20% have been achieved. Over the past 2 to 3 years however the ability to achieve further reductions has “leveled off”. This is not uncommon at this stage of a program recognizing there are thresholds associated with the education, social marketing and customer incentives components of water conservation programs. To support the need for further reductions, water rate structures were recently modified to include an increasing block rate approach that ties variable rates to consumption. This part of the program was developed very gradually to begin to emphasize the value of water and the benefits of reducing consumption based on cost. Although this approach has been successful to a certain extent, certain segments of our overall customer base continues to be “over users” or “excessive users” with more than acceptable consumption. This has been determined through detailed analysis of customer consumption by area and by taking into account lot size, weather and soil conditions.

The middle residential water consumption block (31 to 125 cubic meters) has now been revised to create two blocks (31 to 80 and 81 to 125 cubic meters). This is to ensure those customers who are “acceptable users” with average consumption and who water responsibly are no longer included in the same block as those customers considered to be “over users”. Program consumption data also continues to show there are many customers with larger than average size lots who water responsibly and are considered average users who will benefit from this. The Water Smart program will also continue to work with larger lot high water users by sharing consumption data and the methods being applied by other customers with similar sized lots to assist them in achieving lower consumption. Customers considered to be “excessive users” in the higher block however will pay more per cubic meter for their consumption as an incentive to reduce further and attempt to move into the lower block.

A significant portion of our customer base continues to have acceptable water use, have responded to the “softer” approach of education and consultation, or simply choose to use less water. There are, as noted, segments of “over users” and “excessive users” in spite of efforts to encourage reduction that will now be subject to higher consumption charges. These customers are interspersed throughout our customer base and continue to contribute to higher system demand which is eroding our ability to meet reduction targets. In addition we are finding that many strata developments which are part of our multifamily customer base are considered to be over users and in some cases excessive users.

In order to meet our overall reduction target of 30% by 2010 and 35% by 2012 an additional 15 % reduction in overall water use must be achieved. The utility believes this is attainable by continuing to create more of a balance between programs and incentives (such as new types of drought tolerant grass and turf, revised landscaping requirements, top dressing and soil amendment programs, leak detection programs, irrigation system assessments) and emphasizing the value of water through rate revisions that continue to target high users. This will ensure that those customers that are responsible users are not penalized for their efforts while at the same time high users will be charged more and can look for ways to reduce consumption thereby reducing their costs. This approach will continue to reduce peak demand on our system and will also allow the utility to reduce design standards for water system sizing and wherever possible defer major capital expenditure for system upgrades that are ultimately driven by system demand

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Don Degen,  
Water Drainage Manager



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

Attach: Residential Rate Comparison.

cc. Financial Planning Manager

## **RESIDENTIAL RATE COMPARISON**

### **BASED ON THE FOLLOWING RATES:**

	<i>CURRENT</i>	<i>NEW</i>
<i>Service Chg</i>	6.25	6.00
<i>First 30 CM3</i>	0.225	0.250
<i>Next 50 CM3</i>	0.320	0.330
<i>Next 45 CM3</i>	0.320	0.360
<i>Over 125 CM3</i>	0.420	0.500

### **MONTHLY CHANGE FOR RESIDENTIAL CUSTOMERS**

<u>CM3 USED</u>	<u>CURRENT RATE</u>	<u>NEW RATE</u>	<u>DIFFERENCE</u>
0	6.25	6.00	(0.25)
10	8.50	8.50	0.00
20	10.75	11.00	0.25
<b>25</b>	<b>11.88</b>	<b>12.25 *</b>	<b>0.38</b>
40	16.20	16.80	0.60
50	19.40	20.10	0.70
<b>70</b>	<b>25.80</b>	<b>26.70 **</b>	<b>0.90</b>
100	35.40	37.20	1.80
125	43.40	46.20	2.80
150	53.90	58.70	4.80
200	74.90	83.70	8.80

\* Average single family residential (Oct-Apr) 25 CM3 per month.

\*\* Average single family residential (May-Sept) 70 CM3's per month.

## MULTI FAMILY RESIDENTIAL RATE COMPARISON

### BASED ON THE FOLLOWING RATES:

	<i>CURRENT</i>	<i>NEW</i>
<i>Service Chg</i>	35.50	35.50
<i>Volume Charge</i>	0.163	0.178

#### MONTHLY CHANGE FOR MULTI-FAMILY RESIDENTIAL - 1 1/2 Inch Line

<u>CM3 USED</u>	<u>CURRENT RATE</u>	<u>NEW RATE</u>	<u>DIFFERENCE</u>
0	35.50	35.50	0.00
100	51.80	53.30	1.50
200	68.10	71.10	3.00
300	84.40	88.90	4.50
400	100.70	106.70	6.00
<b>500</b>	<b>117.00</b>	<b>124.50</b>	<b>7.50</b>
700	149.60	160.10	10.50
1,000	198.50	213.50	15.00
1,200	231.10	249.10	18.00
1,500	280.00	302.50	22.50
2,000	361.50	391.50	30.00

## COMMERCIAL RATE COMPARISON

### BASED ON THE FOLLOWING RATES:

	<i>CURRENT</i>	<i>NEW</i>
<i>Service Chg</i>	45.99	45.99
<i>Volume Charge</i>	0.140	0.152

MONTHLY CHANGE FOR COMMERCIAL - 1 1/2 Inch Line			
<u>CM3 USED</u>	<u>CURRENT RATE</u>	<u>NEW RATE</u>	<u>DIFFERENC E</u>
0	45.99	45.99	0.00
100	59.99	61.19	1.20
200	73.99	76.39	2.40
<b>300</b>	<b>87.99</b>	<b>91.59</b>	<b>3.60</b>
400	101.99	106.79	4.80
500	115.99	121.99	6.00
1,000	185.99	197.99	12.00
2,000	325.99	349.99	24.00
5,000	745.99	805.99	60.00
10,000	1,445.99	1,565.99	120.00
20,000	2,845.99	3,085.99	240.00